# **Aboriginal Cosmology**

Australian Aboriginal cosmology, as with all cosmologies, changed and refined itself as Aboriginal people themselves changed and recast themselves. Their view of their world or universe by the time of White contact had developed, modified and transformed itself over many thousands of years, and any attempts to reconstruct or recover a single version of their cosmology from the frozen frame of early anthropological accounts is, to say the least, challenging. Nevertheless, it is the case that their conceptions of their universe(s) were constructed by them and reflected their particular social, economic, political and aesthetic concerns at any particular time. Like us, they were involved in an ongoing formulation and reformulation of their cosmos. According to Harrison,

The universes are our models of the Universe. They are the great schemes of intricate thought—grand cosmic pictures that rationalise human experience; these universes harmonise and invest with meaning the rising and setting Sun, the waxing and waning Moon, the jewelled lights of the night sky, the landscape of rocks and trees and clouds. Each universe is a self-consistent system of ideas, marvellously organised, interlacing most of what is perceived and known ... Wherever we find a human society, however primitive, there is a universe, and wherever we find a universe, of whatever kind, there is a society; both go together, and the one does not exist without the other. Each universe coordinates and unifies a society, enabling its members to communicate their thoughts and share their experiences. Each universe determines what is perceived and what constitutes valid knowledge, and the members of each society believe what is perceived and perceive what is believed.1

<sup>1</sup> Harrison 1985:2.

There are a few basic tenets that underpin a general understanding of Aboriginal cosmology. In Aboriginal ideas about the universe, nature and society, with all its cultural accoutrements, were formed at the same time by powerful creative spirits who wandered the earth during an eternal time (still existing), known these days simply as 'The Dreaming'.2 These ancestral spirits still abound but are usually no longer visible, having withdrawn from human view into another space/time realm. The earth and life itself were seen as having been in existence when the great creative powers began their business. However, these spirits are not seen as being omnipotent, in the sense that humans, too, are considered to be co-creators. Their task is to maintain the ecological balance, being ultimately responsible for the ongoing harmony between natural and cultural systems, harmony and balance being seen as the keys to the health and continuity of the two systems. '(Aboriginal) human beings have a responsibility to intervene where they consider intervention necessary and to leave things alone when they consider that necessary. Humans have the ability to adjust the system, as well as throw it out of kilter'.3

The sustaining effects are seen as theoretically reciprocal: if people work to support natural systems, attending as stewards to the continuity of various species, natural plenty is assured for the continuity of people and their cultural practices. Aboriginal ritual life (increase, initiatory and mourning rites) are thus concerned, at the level of ideology at least, with assurance of the continuity of life - the natural increase of species (increase or fertility rites), the social existence of persons (initiatory rites) and the ongoing nature of the spirit (mourning rites). These rituals 'seize upon traditions which may be naturally occurring, as with the flowering of trees from which nectar is obtained, or socially occurring, as with the making of men from boys ... Life is seen ... as cyclical, as running a course, and it is the responsibility of ritual performers to keep natural and social cycles in motion'.<sup>4</sup>

<sup>2</sup> See Stanner 1991.

<sup>3</sup> Rose 1992:97.

<sup>4</sup> Maddock 1974:132.

Aboriginal cosmology then, is more than a creation theory about the origin and structure of the world; it involves as well a theory of human participation and action.

## The Sky Dome

Despite my cautionary notes about different cosmologies, it is occasionally possible to identify universal themes. Most Australian Aboriginal people held a common view of the earth as a flat disc surrounded by the boundless water of an ocean. Above this earth-disc was a solid vault or canopy. Beyond this vault was the sky-world, a vast, plentiful and beautiful place. 'The sky was a canopy covering all and coming down beyond the horizon to meet and enclose the flat surface on which men and women followed the fixed pattern of their lives'.<sup>5</sup>

The sky dome or canopy was usually supported by props of one sort or another. Views about what constituted the props differed across the country. In the Australian Alps for example, the vault was held up by trees<sup>6</sup>, but on the New South Wales coast, the props appear also to have been solid wooden pillars watched over and guarded by an old man.<sup>7</sup> In some places, the stars seen as star-people held the canopy up in conjunction with an emu whose camp was in the dark patch near the

<sup>5</sup> Willey 1979:51. The sky viewed as a vault above the disc-earth is well documented in the anthropological literature. It is a view held by Victorian groups (Mathews 1905:6; Massola 1968:05), in particular in western and central Victoria (Worms 1986:09); among New South Wales groups in general (Mathews 1905:6) and amongst the Wuradjeri of western New South Wales in particular (Berndt 1946–7:60); among the Yarralin people of the Victoria River Valley in the Northern Territory (Rose 1992:4); the Anyamatana people of the Northern Flinders in South Australia (Mountford 1939:103) and the Karadjeri of north Western Australia (Piddington 1932:94)

<sup>6</sup> Worms 1986:109.

<sup>7</sup> Willey 1979:34.

Southern Cross known to Europeans as the Coal Sack.<sup>8</sup> Myths told to Daisy Bates by people from the Great Australian Bight indicate that the sky-dome was held up by a great tree, known as *Warda*, which had to be protected at all times,<sup>9</sup> an idea similarly held by groups in the east.

The vault itself was pictured as being composed of a very hard and durable substance. The Karadjeri of north Western Australia, for example, thought this substance to be rock or shell. Likewise, groups in Central Australia saw the dome as being 'a huge shell that covers the world during the hours of darkness ... the whole sky is turned over by the two men, the older and younger guardians of the circumcision ceremony ... who live in the constellation of Scorpius'. The vault delineated the edge of the sky-world which was thought to be the dwelling place of many ancestral spirits and heroes, who were also personified sources of energy which informed and gave meaning to natural and cultural life. The sky-world could be visited by men and women of high degree (traditional healers) and their great powers were seen to be connected to these energies. Whether the vault was experienced as being consistently or uniformly contained, bounded or immutable is unclear.

## Gaining Access to the Sky-World

The sky-world beyond the dome was envisaged as containing a hole, a window or a fissure, through which the traditional healers could gain entry. They usually gained access by climbing or pulling themselves up a connecting cord. The cord was seen variously as being hair, string, a rainbow, lightning, a spear, a grass rope, a tree, flames, a totem board and a turtle. Among some Victorian groups there was a view that

- 8 Mountford 1976:27-31.
- 9 Isaacs 1980:141.
- 10 Piddington 1932:394.
- 11 Mountford 1976b:450.
- 12 Amongst the Dieri of Lake Eyre, it was a hair-cord (Elkin 1948:1), in the Northern Kimberleys, it was a rainbow (Elkin 1945:3) as it was

people used to be able to climb up an immense pine tree (probably *callitris* sp.), up through its branches to the topmost ones which reached the sky. They could walk about, indeed live on the starry vault. Those people who belonged to the sky could descend to the earth and likewise visit friends before returning. Visits were made for purposes of barter between hunting grounds. The tree was viewed as 'a regular highway between earth and the upper regions.' Around the Roper River area, amongst the Alawa people in the Northern Territory, the link was also a tree, but more specifically, a large stringy-bark. <sup>14</sup> In an account of the Booandik people of South Australia, the healer (*pangal*) climbed to the sky-world quite regularly to visit and have social discourse with the sky people. <sup>15</sup>

In essence, the notion of a cord or link, an umbilicus, should be recognised as part of a myth cycle involving the life-giving or life-sustaining, connecting the earth and the present with the world above, the

amongst the Wik-Munkan people of Cape York Peninsula (McConnel 1957:115). In the Eastern Kimberleys, it was a string (Elkin 1945:3), amongst the Wotjobaluk in western New South Wales (Howitt 1904:04) and some Victorian groups (Mathews 1905:0), it was a pine tree (probably callitris sp.). Among the Wuradjeri of western New South Wales, it was a thread (Elkin 1945:5), amongst the Yarralin, lightning strings (Rose 1992:4–5), and at Menindee in New South Wales, and around Lake Alexandrina in South Australia, it was a spear (Berndt and Berndt 1977:03; 1993:29) as it was around Encounter Bay in South Australia (Meyer 1916:62). Amongst the Ngulugwongga people around Daly River in the Northern Territory, the Milky Way which was seen as a rope plaited from grass formed the link (Berndt and Berndt 1989:43-345). Around the Clarence River in New South Wales, it was seen to be the flames of a large fire (Mathews 1889:29). Among groups around the Great Australian Bight, it was a huge totem board, a symbolically decorated sheet of bark (Ker Wilson 1977:1–28), and among the Gundungurra in south-eastern New South Wales, it was a giant turtle (Smith 1992:4).

<sup>13</sup> Mathews 1905:79-80.

<sup>14</sup> Berndt and Berndt 1989:284.

<sup>15</sup> Smith 1880:30.

eternal.<sup>16</sup> It was also possible in some areas to gain access to the skyworld by tunnelling through the earth to the other side of the sea.<sup>17</sup>

A myth explaining the sky-dome structure is told by the Mandalbingu people of northern Arnhem Land. <sup>18</sup> They tell the story of the first sunrise: how long, long ago, the sky was so close to the earth, it shut out all light. Everyone had to crawl around in darkness until the magpies, regarded as one of the more intelligent species of birds, decided that by working together, they could raise the sky. Slowly, using long sticks, they propped it on low boulders, then gradually onto higher boulders above their camp. As they struggled to lift the sky even higher, it suddenly split open to reveal the first sunrise. The beauty, light and warmth delighted the magpies, who burst into their distinctive warble. As they sang, the blanket of darkness broke into fragments and drifted away as clouds. Magpies, it is said, still greet the sunrise with their call.

Another myth from the headwaters of the Murrumbidgee River reiterates this same idea. The people from this region also envisaged the sky as once being very close to the earth, forcing people, plants, birds and animals to crawl. One day, the wife of an important elder ran off with another man. The elder took off after them. The couple took refuge in the waters of the river. In his search for them, the elder found a bright golden rod which when held up grew, pushing the sky upwards. Birds originally loathe to leave their cramped sky also went up. The elder is still somewhere pushing up the sky, and when he gets tired he lets the rod down. Whenever this happens, clouds cover the earth and fogs spread over the ground.<sup>19</sup>

<sup>16</sup> Worms 1986:104.

<sup>17</sup> This was a notion held for example, by the Wuradjeri (Berndt 1946–7:337).

<sup>18</sup> Retold by Mountford (Roberts and Mountford 1974:98) and Gulpilil (Rule and Goodman 1979:15–23).

<sup>19</sup> Peck 1925:30-37.

The people from the Great Australian Bight in South Australia see things a little differently. In one of their myths told to Daisy Bates<sup>20</sup> men and women of the Dreamtime (Dhoogoorr) lived forever. When they grew tired of being on earth, they simply walked back along the huge totem board (Kalligooroo), which joined the earth to Kalbu, the sky-country. They could return to earth whenever they wanted. There was also a third country (Jimbin) which lay beneath the earth. The spirit babies not yet born lived in this country but could only be born on earth. After birth and after their first smile, these spirit children became human children and could also travel with their mothers back and forth to the sky country. As the story goes, this totem board track was destroyed by a group of children who allowed their cooking fire to get out of control when they camped half-way along it.

So now, those who have gone to Kalbu, the sky-country, must remain there forever and those on earth cannot join Kalbu comrades again. Death, it is said, came to humans for the first time.

In other places as well as in the Great Australian Bight, there was a notion of an underworld which could be accessed by digging through the limited thickness of the earth. Amongst the Tiwi of Bathurst and Melville Islands in the Northern Territory, for example, the underworld was a place of complete darkness and contained a valley rimmed by two high stony ridges. Along the valley, the Sun Woman, guided by the light of a glowing bark torch, travelled each night from the western to the eastern horizon. Nothing grew in the underworld. The Sun Woman's act of lighting the fire of the bark torch was the first light of dawn and the clouds of sunrise were reddened by the dust of the powdered ochre she wore to decorate herself. The Moon Man also travellled along in the underworld valley by day and at night gave light to the stars above the earth.<sup>21</sup>

<sup>20</sup> Ker Wilson 1977:21-22.

<sup>21</sup> Sims 1978:166.

## The Sky-World

Beyond the sky-dome or canopy is the sky-world. It is a dynamic and lively place, if somewhat mysterious. The sky-world of the Yarralin people of the Northern Territory, for example, is conceived as being above the stars but below the sun and the moon. It is the home of the Lightning People. When lightning is seen in the sky, it is known that the Lightning People are active, probably fighting. This sky-world is also the world of the dead, but after some time the spirit of a deceased person merges to become part of the collective Lightning People. A former healer from this area has described how he was taken to the sky-country for a fortnight when he was young. He described the place as peopled by men, women and children: "The women had long hair, smooth skin "like a snake", and "very strong eyes" but had different insides - "no fat, just grease; no blood". He said the sky-country was far away and it was dark and very windy. He was made 'clever by lightning', giving him powers of healing.<sup>22</sup>

The Tiwi of Melville and Bathurst Islands divided their universe into four levels, the underworld, the earth on which they live, the upper world, and beyond that, the sky-world. The upper world had two seasons annually, a wet and a dry. In the dry season, the upper world was the home for the man of thunderstorms, the woman of the monsoonal rains and the woman of lightning. At the end of the dry season, these three moved to the sky-world and, in doing so, shed rain on the dry earth. While this was happening, the trees and plants of the upper world used the raindrops to send their spirits to the ground where they grew into plants. Hence all vegetation on the islands emanated from spirits dropped from the upper world. The sky-world was the place of the stars, the moon and the sun.<sup>23</sup>

The Aranda of Central Australia viewed the sky-world of the ancestors as being a land of natural riches and plenty, with an abundance of

<sup>22</sup> Rose 1992:94.

<sup>23</sup> Roberts and Mountford 1974:66; Sims 1978:166.

food. The linguist Ted Strehlow, who grew up at Hermannsburg with Aranda people, describes a kind of utopia from northern Aranda legends and chant verses.

Young hunters in the sky-world come home every night weighed down to the limit of their strength with slaughtered wallabies tied together in bundles. The ... men ... "charm" the playful bandicoots by twirling their bull-roarers so that they approach fearlessly and allow themselves to be caught and killed without any attempt to escape from their hunters ... the whole mulga thicket is crowded with peacefully grazing kangaroos ... the banks of the little creek are densely lined with dark green native orange trees, and the gleam of their golden fruit shines far and wide ... Every creek and rill contains water. The plain is green with herbs and grasses; the mountains are decked brightly with a multi-coloured covering of wildflowers. The air is heavy with the scent of eucalypts and acacia buds. Clustering swarms of native bees hum around the pale yellow blossoms of the bloodwood trees, eager to collect the sweet honey. The rocky caves are filled with nimble wallabies; and in the burrows on the plains the sharp-nosed bandicoots are sporting carelessly. Full-throated choirs of cicadas sing in the tall, white-barked rivergums, and their red-golden bodies suffuse the dark foliage of the trees with a bright gleam, as though the gums themselves were all dripping with blood. From the clear sky the eagle swoops down on his shrieking prey when the day stands at high noon; when the shadows of the waning day lengthen out towards the eastern horizon, the euros hop down nimbly from the stone-hills and come down to graze at the edge of the plain. Then the sun covers its face with hair-string ornaments and darkness draws on. The moon comes forth from the mountains, like a proud young man; he wears a chaplet of gleaming white bandicoots' tails; he stands at the edges of a claypan and watches his bright face mirrored in the silver ripples, and is lost in admiration at his own youthful comeliness. In the thick salt-bush the ceaseless plaintive chirp of the lonely cricket is sounding on into the silence of the night; and the emus shake their long

necks as they come to the rock-holes for a deep cool draught. The red plain kangaroos assemble in groups to hold converse with their aunts, the mulga parrots.<sup>24</sup>

Furthermore, men and women there never age, 'those above live forever, immortal into all eternity'. <sup>25</sup>

The sky-world was frequently envisaged as containing much quartz crystal and fresh water, both being highly valued resources. There is also an intriguing suggestion that it was represented among New South Wales groups by the Bora Ring of secret initiation grounds.<sup>26</sup> The Dieri of Lake Eyre also described their sky-country as being a beautiful and abundant place, full of trees and birds.<sup>27</sup> It has also been described by some as a 'land of exquisite beauty with flowers blooming everywhere, massed together in brilliant colours like hundreds of rainbows laid out on the grass'. The flowers neither faded nor died. The perception of the sky-world, as an eternal place or space of plenty, beauty and peacefulness was not uncommon.<sup>28</sup>

### The Land of the Dead

Over much of Australia and in particular, parts of the west and north-west, the spirits of the dead went to and resided in the sky-world with the ancestral heroes,<sup>29</sup> but as frequently, there was a specially designated earthly place of sojourn for the dead, always located well away from that of the living. Sometimes, it was located at the eastern or western edge of the sky, or on faraway islands. It could be located behind one or more of the fixed stars, as in Arnhem Land where it was held to be

<sup>24</sup> In Elkin 1976:36-37.

<sup>25</sup> Robinson 1966:84-85.

<sup>26</sup> Elkin 1976:253.

<sup>27</sup> Howitt 1904:358-59.

<sup>28</sup> Reed 1985:13-14.

<sup>29</sup> Berndt 1974:117.

in a cave on an island behind *Barnumbir*, the morning star.<sup>30</sup> On the island, it is believed that the spirits dance, sending out morning stars to different parts of Arnhem Land. Because the spirits send out their stars attached to strings which they pull in again at dawn, the humans imitate these actions in their mourning rituals. They represent the morning star, using a large pole with feathered strings and balls.<sup>31</sup>

In central and northeast Arnhem Land, mortuary or morning star ceremonies (known as 'sorry business') are performed to ensure the safe passage and transition of the deceased souls to the Land of the Dead. The ceremonies are associated with an ancestral being known as *Wulumumu*, who it was believed, hunted stingrays and gathered yams at Gakulu on Elcho Island. With the vines from the yams, *Wulumumu* made the feather-covered strings that he then attached to the Morning Star, Barnumbir. The feathered strings are believed to guide a person's spirit or soul back to its final resting place. *Wulumumu* is capable of of recalling the soul after it has finished its journey across the heavens guided by and attached to the Morning Star. When the Morning Star is seen in the sky, it serves as a form of communication between spirits of deceased ancestors and those still living on the earth.

<sup>30</sup> The land of the dead is sited in a cave behind the rising sun among the Moil of the Lower Daly River (Worms 1968:169). Among the Kurnai of Eastern Victoria, it was located where the sun touches the western horizon, and could be reached via the rays of the setting sun (Howitt 1904:173). In the Kimberleys, the place of the dead was also in the west (Kaberry 1939:211), and amongst people of the Lower River Murray, it was believed spirits of the dead travelled by a well-defined coastal track and then across the sea to an island (Berndt and Berndt 1974:117). In the eyes of the Kamilaroi of northwest New South Wales, the spirits of the dead go to the Magellanic Clouds (Howitt 1904:431). The Milky Way was also seen as a place of the dead, as in parts of Arnhem Land (Maymuru 1978, Murphy 1991:267–8) and in some areas of the Kimberleys (Durack 1969:242). Amongst the Bibbulmun of Western Australia, the spirits of the dead had to journey under 'father sea', west to the land of the dead (Bates 1992:169).

<sup>31</sup> Worms 1968:169.

A deceased person's spirit could also return to a particular place where he or she originated. Amongst the Yarralin<sup>32</sup> for example, one aspect of a person is identified with his or her breath or wind, and when a person dies, life leaves with the wind. If the person dies far away from home, the breath or wind can be seen as a shooting star returning to its own country. If the person dies in his own country, the wind or breath may be associated with a particular star as it passes over to another body to be born again. These people also have a sky-country where the spirits of the dead are people transferred with the aid of ceremonial mourning rituals. The long streaks of light from the setting sun are roads or strings on which the dead travel, escorted by custodians of the dead.

A shooting star also signals death amongst the Kwadji people of eastern Cape York.<sup>33</sup> The people follow the passage of the shooting star across the sky and, if as most often happens, the star merely crosses the sky, they say someone from another area has died, but if a report is heard in conjunction with a shooting star, the people know someone from their own area is dead.

Amongst the Karadjeri in north-western Australia<sup>34</sup> too, shooting stars also indicated death, usually the death of an important man, the direction the shooting star takes indicating where the death had occurred. Amongst the Gundungurra of the Blue Mountains area in New South Wales, the place of the dead was at the end of the sky towards the sea. 'On arrival at the other side (the spirits of the dead) find a large bridge which they cross, and then dive down through a tunnel, at the end of which is a fiery mountain, they pass over this and then meet their friends.'<sup>35</sup>

<sup>32</sup> Rose 1992:70.

<sup>33</sup> Montagu 1974:155.

<sup>34</sup> Piddington 1932:394.

<sup>35</sup> Feld in Smith 1992:84.

### The Nature of Stars

As to the nature of stars themselves, opinions differed. Some Aboriginal groups envisaged them as the tracks, campfires or representations of the sky people. Others saw them as spirits of the dead, and yet others, the Karadjeri<sup>36</sup> for example, thought that, as well as being representations of the spirits of dead men and women, they were globules of light individual nautilus shells with fish still alive inside them. In this view, shooting stars were seen to be the result of the death of the fish and the discarding of its shell. Every star represented the spirit of some deceased Karadjeri man or woman, while more important stars and even constellations represented objects and persons of myth. Theoretically, all individuals had a place in the sky but the stars to which they corresponded were known only by a few Karadjeri.

Among the Walbiri in the Northern Territory, there was a notion that neighbouring but unknown Mudbara ancestor heroes chopped up the Milky Way, or parts of it, to form the individual stars of the night sky.<sup>37</sup> Amongst the Western Aranda in Central Australia, the stars were seen to be like fires - 'just like fires that glint and gleam as they move along, they hover (above), flashing like lightning as they burn.'<sup>38</sup> In what could well be a humorous throw-away line, the Awabagal of coastal New South Wales were heard to remark that they saw the sun, moon and stars as originating from the head-lice thrown by a man into the fire.<sup>39</sup>

One highly imaginative narrative explains the origin and nature of the stars:

Beyond the horizon, where no-one has ever been, there is a beautiful land with grassy valleys and tree-covered hills. Streams trickle down the green slopes and join together to form a broad placid river, where flowers nod their heads over

<sup>36</sup> Piddington 1932:394.

<sup>37</sup> Meggitt 1966:124.

<sup>38</sup> Robinson 1966:84.

<sup>39</sup> Gunson 1974:47.

the banks. The inhabitants of that land are moons - big, shining, globular moons. They have no arms or legs, but they can move quickly across the grass by rolling over and over. It is a pleasant life in that green, watered land, but sometimes the moons grow restless, and when night comes they have the urge to explore farther afield and stroll across the sky. Only one moon ever goes on such a journey at a time ... but ... outside the valley there lives a giant. He catches the wandering moon, and with his flint knife, cuts a slice from it each night, until after many nights there is nothing left but a number of shining slivers. The giant cuts them up very finely and throws them all over the sky. They are timid little creatures, the cutup moons which have become stars. During the day, when a sun goes striding across the sky, they hide. Who knows but that, if they showed themselves then, another sun might not creep out and catch them unawares. At night there are no suns ... So, in the velvety blackness of the night, they frolic and play until the hungry sun again stamps across the sky.<sup>40</sup>

Ancestral creative spirits having a bird form, which have subsequently become stars is not an uncommon notion. According to Paddy Roe,<sup>41</sup> an Aboriginal elder from the Western Kimberley region, the stars came about after *Djaringgalong*, who was a 'monster bird', stole babies to take home to his nest and eat. Pursuing the babies, two men went to *Djaringgalong's* nest and found two eggs. They consulted with two elders who were healers. They went back to the nest and waited for the monster bird. At dawn he returned. They attacked and speared him and the eggs. The bird subsequently turned into the stars.

A similar ancestral spirit among the Kulin of Victoria<sup>42</sup> is represented as the great eaglehawk, *Bungil*. He was a creative spirit having two wives and a son, *Binbeal*, the rainbow. After he had finished creating the mountains and rivers, the animals and insects, and instructing men, he became tired of earth. So he told *Bellin-bellin*, the crow, to open

<sup>40</sup> Reed (1965:132) does not locate the place where this story originated.

<sup>41</sup> Roe and Muecke 1983:76-82.

<sup>42</sup> Massola 1968:109.

the wind which was stored in bags. The wind escaped the bags and blew *Bungil* and his people to the sky where they remain now as stars. From an Arnhem Land<sup>43</sup> myth, *Kakan*, an old hawk, discovers how to make fire by twirling one stick upon another. In a subsequent dispute with a white hawk, the country was set on fire, burning a pine tree which the people have habitually used to climb up to and down from the sky. So the people up in the sky at the time of the fire had to remain. Starlight, as the story goes, comes from the crystals implanted in their heads, elbows, knees and joints.

## Stars and the Terrestrial Landscape

The landscape for Aboriginal people was seen as having been created by ancestral spirits and, in many cases, it is still imbued with their presence. Most of the myths which involve the stars have their dramatic starting points or episodes on the earth, so that all over the continent, the terrestrial environment is intrinsically linked with the celestial environment. Many sky-based ancestral heroes and heroines are also associated with particular places on earth.

So, for example, a painted door in the primary school at Yuendumu in Central Australia documents the notion that sacred places on earth fell out of the Milky Way as shooting stars. <sup>44</sup> In another example, Gosse Bluff, also located in Central Australia, is seen as being the result of a group of ancestral women who were dancing across the sky as the Milky Way, when one of them put down her baby in its carrier. The carrier and baby toppled over the edge of the dancing area and both were transformed into a ring of tortured rock walls. To this day the boy's mother and father, as the evening star and the morning star, still search for their child. <sup>45</sup>

<sup>43</sup> Maddock (1970) in Isaacs 1980105.

<sup>44</sup> Warlukurlangu Artists 1987:127.

<sup>45</sup> Beale (1994:43) indicates that one scientific explanation for the crater is that the bluff is the site of a direct hit on earth by a comet 130 million

According to the great Bruny Island storyteller, *Wooraddy*, there is a large standing stone behind the great sweeping strand known as Cox Bight on the far south-west of Tasmania. It is the petrified form of *Moinee*, an important creator-ancestor who cut the rivers and cleaved the land of *Trowenna*, the place we now call Tasmania. *Moinee*, originally a gleaming white star, was a boy born to *Parnuen*, the sun, and his wife *Vena*, the moon. *Moinee* created the first human being, but his brother *Dromerdene* intervened to remodel the human's anatomy. So furious was *Moinee* at this intervention that he fought a tremendous battle in the heavens with *Dromerdene*. As a result, *Dromerdene* tumbled into the sea and *Moinee* fell to earth, his landfall being in the far south-west, where he then lived as a man.<sup>46</sup>

At Glen Helen Gap in the western MacDonnell Ranges the stories associated with Orion and the Pleiades are represented in the rocks. The man of Orion pursued the women of the Pleiades to these rocks where they are clustered together in fright, desperately hoping that he would not see them. The women have since been transformed into the rocks which cling to the side of the Finke Gorge. The oldest sister took up a position where she could watch *Nirunja's* (Orion's) movements, and her body is now a spectacular outcrop of vertically bedded rocks. Despite the oldest sister's precautions, however, the man of Orion captured and raped one of the women. At the mouth of the Glen Helen Gorge, there are rows of vertically bedded rocks. It is thought that these were created by the feet of the dancing Pleiades-women as they performed a women's ceremony.<sup>47</sup>

There is a myriad of these associations, between celestial objects and particular terrestrial places spread far and wide across the Australian landscape. In Queensland, in the Tully area, a rather bare place known as Green Hill (between Gordonvale and the sea) is thought to be the site

years ago which would have changed the whole planet like a bell. It left a crater 20 kilometres wide, the walls of which have eroded by more than 2000 metres.

<sup>46</sup> Plomley 1956:118.

<sup>47</sup> Mountford 1976b:480-82.

where, long ago, the moon (*Carcurrah*), feeling dizzy, fell from its place in the heavens. It skimmed over the thick forest, from the top of the hill down into a large swamp and there it lay, held tight despite the pulling and shoving of the many animals around. So exhausted were they that they left the moon to its fate. Enraged at being deserted, *Carcurrah* called out a vengeful curse: 'Henceforth, one of you shall die every second year. All the birds and animals who live near Redbank, Wright's Creek and Yatee Station shall suffer the same fate, and never more shall the trees grow on the Green Hill.' And so it happened, goes the story. <sup>48</sup>

There has been speculation about the possibility of ground recordings of celestial maps throughout the country. On the Elvina Track at West Head in the Kur-ring-gai Chase National Park, for example, there is a tesselated rock platform marked by holes, which may well represent the position of astronomical bodies. According to Stanbury and Clegg (1990), Cairns (1993), and Cairns and Branagan (1992), the whole area may be a celestial map. Cairns and Branagan go so far as to assert that, based on ethnographic accounts, '6' cognitive intellectual mapping' did occur. Moreover argues Cairns, 'abstract physical mapping of lunar phase(s) complemented by isomorphic representation of star patterns' was likely and could well be found in rock engravings and paintings. This is clearly a possibility, but at this stage, is still speculative. '50

<sup>48</sup> Henry 1967:38.

<sup>49</sup> By the Berndts, Dawson, Elkin, Howitt, Mountford, Roth and Strehlow.

<sup>50</sup> Cairns 1993:148-49.