



Lake Eacham was once a volcano that erupted 9000 years ago. The story describing this event is still told, having been passed down to warn each new generation about what had happened so they could be prepared for another eruption. [Glpww \(CC BY-SA 4.0\)](#)

Evidence that the Oral Stories of First Nations Australians May Be Thousands of Years Old

Oral accounts across Australia tell the story of ocean levels rising at the end of the last glacial period, and these can be cross-checked against reconstructions of the coastline receding and land bridges disappearing.

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In 1970, an Indigenous Australian (Lardil) man named Goobalathaldin, more commonly known today as Dick Roughsey, completed the manuscript of his autobiography, *Moon and Rainbow*. In it, he recounted many of his ancestors' stories, including those about the time when the North Wellesley islands, where his people had lived for thousands of years, were once connected to the Australian mainland. These are his words:

In the beginning, our home islands, now called the North Wellesleys were not islands at all, but part of a peninsula running out from the mainland. Geologists ... thought that the peninsula might have been divided into islands by a big flood which took place about 12,000 years ago. But our people say that the channels were caused by Garnguur, a sea-gull woman who dragged a big walpa or raft, back and forth across the peninsula.¹

Is it possible that this represents an authentic oral tradition, passed down across hundreds of generations about the creation of islands in the Gulf of Carpentaria long, long ago? Our instinct might be to say 'of course not' but recent research suggests otherwise.

Most of us have been conditioned to think of the deep past, thousands of years ago, as understandable only through the written word. Of course we can wander through 2000-year-old Roman ruins and listen to the accounts of scholars who have read far more than we have about the people who once occupied them. But what of the world 10,000 years back? Must we rely solely on the soulless deductions of science, or are there voices from these times that can bring these ancient worlds to life and populate them with people and events to which we can relate?

» Patrick Nunn and Nicholas Reid, 'Evidence that the Oral Stories of First Nations Australians May Be Thousands of Years Old,' *Agora* 58:2 (2023), 9-13 «

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Increasing numbers of respectable scientists now argue that some ‘myths and legends’, which literate people often dismiss as fanciful, in fact represent the observations of people long ago who witnessed memorable happenings—such as volcanic eruptions and giant waves—and encoded these observations into stories passed orally from one generation to the next hundreds of times over thousands of years. Many of us today instinctively reject this idea on the grounds that we often cannot accurately render the same story across ten minutes of retelling, let alone a decade or even a thousand years. But that is the experience of people who can read and write, not those who had never learned to. As Socrates had it, writing ‘destroys memory’.²

There is mounting and compelling evidence that oral societies acquired, organised and communicated a massive amount of knowledge orally, often through what today we term ‘stories’ told by ‘storytellers’. Since these ancient storytellers’ worldviews differed from the rationalist/mechanistic ones most of us hold today, the oral knowledges that have survived often appear to us irrational—all that talk of giants and mermaids, and of improbable creatures with superhuman powers—so that we regard them as fictions. But in some cases they are not.

Tales from Deep Time: Storytellers as History Teachers

Sometimes people look at the past as static—as two-dimensional as the words and pictures on the printed page that describe it. We need imagination to bring it to life because we are literate, but in pre-literate times the descriptions of the past were quite different. They were dynamic, no one version was the same, and they were communicated in ways that engaged audiences through the use of performance and dance, song and poetry, and even rock art. Storytellers were the history teachers of ancient times, intent on capturing the interest of their audiences and telling them things about their past that gave them context—a sense of where they fitted

within the effervescent waters of the river of time.

Yet this was no game. In harsh environments like those that exist in most parts of Australia, multiple dangers exist that might once have snuffed out your tribe in an instant—a prolonged drought, a massive flood, even a volcanic eruption or the submergence of the land’s fringes by the ocean. The learning of history was key. If you did not learn everything that your ancestors knew about where you lived, its possibilities and its perils, then your chances of survival were less than optimal. If you had not learned how your ancestors had survived the last great flood to wash across your homelands, how would you know what to do when the next great flood came along? So, you paid attention to the storytellers, and your knowledge was cross-checked with as much rigour as any test is marked in today’s education system. How might this have been done?

In the narrative cultures of contemporary Aboriginal Australia, we find cross-checking practices that might explain how Aboriginal sea-level rise stories were transmitted with such accuracy. In many parts of Australia, knowledge of stories, songs, and other forms of cultural knowledge are mediated between ‘knowledge owners’ and ‘knowledge managers’ as a key part of people’s kin-based responsibilities. Figure 1 shows the patriline of an Aboriginal man running through four generations, and this patriline might

1 Dick Roughsey, *Moon and Rainbow: The Autobiography of an Aboriginal* (Sydney: Reed, 1971), 20.
2 Plato, *Phaedrus*, 274c.

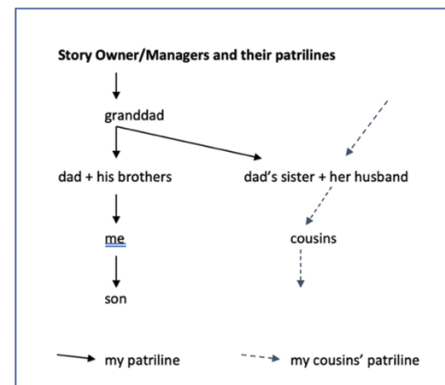


Figure 1. How patrines own and manage stories across generations.



Figure 2. Locations of groups of 'submergence stories' from around the Australian coast. Reid, *Deep Water Knowledge*⁷

own the knowledge of certain stories. Let's assume his position as 'me' and note that the children of my dad's sister (my cousins) belong to their dad's dotted patriline, not my solid one, and their patriline has the role of manager of my patriline's stories. In real terms, this means that my cousins' job is to cross-check that my son has proper knowledge of the stories told by me, and my dad, and my grandfather if he's still alive.

While we have to be careful to not assume that features of contemporary Aboriginal culture apply at deep time depths, this kind of owner/manager system, which requires a story to be discussed explicitly across three or four generations of a patriline, constitutes a mechanism that may be particularly successful at maximising the precision by which a story is told across successive generations.

Consider the story about Lake Eacham in northern Queensland, which was first written down by Australian linguist Bob Dixon via Jack Doolan following his conversations with Mamu (Dyirbal) speaker George Watson on Palm Island in 1964.³ The story tells that two

newly-initiated young men, required by law to stay in camp while their elders went hunting, broke the taboo and caused a retributive catastrophe.

The camping-place began to change, the earth under the camp roaring like thunder. The wind started to blow down, as if a cyclone were coming. The camping place began to twist and crack. While this was happening there was in the sky a red cloud, of a hue never seen before. The people tried to run from side to side but were swallowed by a crack which opened in the ground.⁴

Clearly this is a memory of the volcanic eruption that created the maar volcano, which is now water-filled and known as Lake Eacham. We propose that this story was passed down through the ages to warn each new generation of people living in the area about what once happened ... and might happen again. Geologists dated the eruption of this volcano to just over 9000 years ago, the same amount of time over which this story must have been passed along George Watson's bloodline to reach us today. Other oral accounts of comparable stories are known from elsewhere in Australia and other parts of the world.⁵

3 Bob Dixon, *Searching for Aboriginal Languages* (Brisbane: University of Queensland Press, 1963), 153–154.

4 Bob Dixon, *The Dyirbal Language of Northern Queensland* (London: Cambridge University Press, 1972), 29.

5 Patrick Nunn, 'Firepits of the Gods: Ancient Memories of Maar Volcanoes,' *The Conversation*, June 4, 2019 <https://theconversation.com/firepits-of-the-gods-ancient-memories-of-maar-volcanoes-116808/>

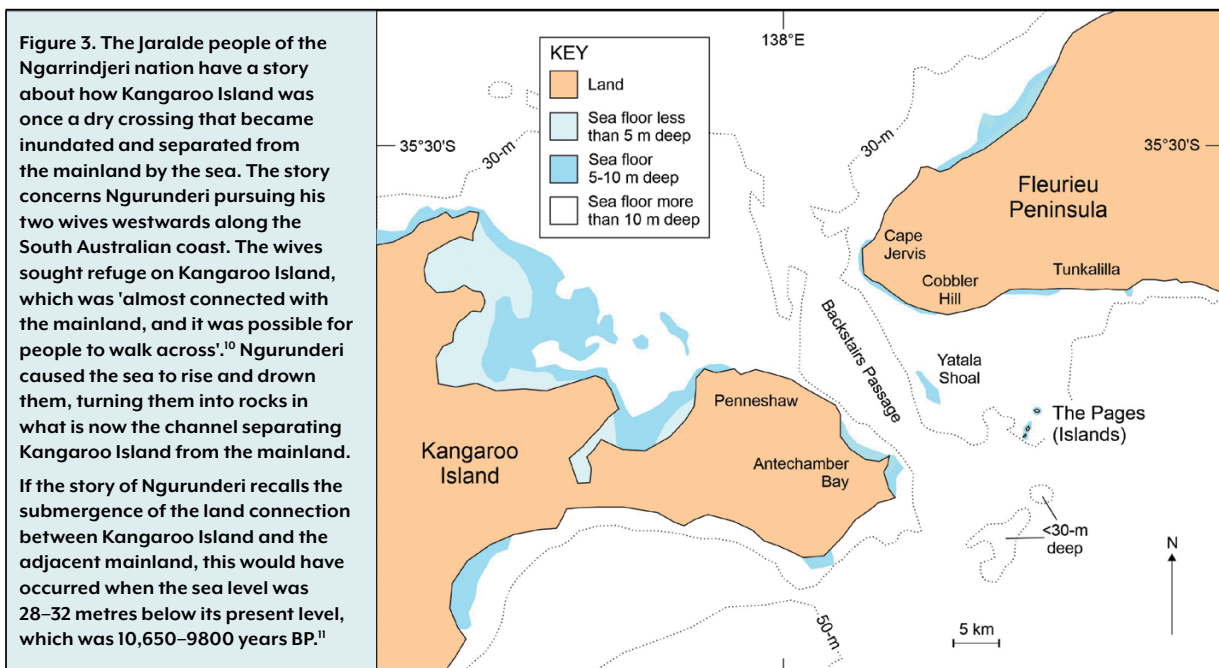
Since we know fairly precisely how the ocean surface around Australia changed throughout the post-glacial period, we can in each instance estimate the time at which the ocean would have been low enough to make a particular story true.

Our research has focused on compiling and analysing stories of coastal land loss in Australia (and elsewhere) that is attributable to the rise of the ocean surface following the coldest time of the last great ice age about 20,000 years ago.⁶ At this time, massive ice sheets covered many continents, especially in the northern hemisphere, and the surface of the ocean (from which the water to create these ice sheets had been drawn) lay 125 metres below its present level. The geography of the world was different. Australia was overall much drier than today, its inhabitants driven to the wetter fringes from its mostly unliveable centre at the time. When the ice age ended, the continental ice sheets melted and their water poured into the ocean, raising its level by the same 125 metres within 10,000 years or so. This was a transformative event, felt especially by those people living along the fringes of the land. These generations were driven ever further inland, deprived of the lands their ancestors had utilised.

It is no surprise that Indigenous Australians living along this continent's fringes developed stories about this ocean-surface rise, but what is somewhat surprising is

that many of these stories survived seven millennia after the ocean surface stabilised to reach us today. We have now identified groups of these 'submergence stories' from more than thirty locations around Australia (Fig. 2).⁷ All can be interpreted similarly—the coast was once much further seawards than it is today, our ancestors occupied and utilised the land, and key features they named are all now underwater.

For most of these stories it is possible to reconstruct the geography of the coastline at the most recent time the story would have been true. Since we know fairly precisely how the ocean surface around Australia changed throughout the post-glacial period, we can in each instance estimate the time at which the ocean would have been low enough to make a particular story true. Thus the Ngarrindjeri nation stories about how people were once able to walk between what is now Kangaroo Island and the Fleurieu Peninsula on today's mainland depend on the existence of a land bridge between the two. Research suggests the last land bridge here disappeared around 10,100 years ago, giving a minimum age for these stories (Fig. 3).⁸



History was important to the survival of ancient pre-literate peoples, but so too was geography. Often the divisions between the two were far less pronounced than they appear today. One example comes from the Central Desert, and concerns a rather elaborately-decorated spear-thrower (lankurru) belonging to a group of the Pintupi-speaking people at Labbi-Labbi with whom anthropologist Donald Thomson stayed several weeks in 1957. The group's leader, Tjapanangka, carefully explained that what Thomson had supposed to be decoration on the spear-thrower was in fact a map of forty-nine named waterholes (Fig. 4)—essential information for survival in this dry part of the continent. This type of information was routinely passed to each new generation to assure their survival. Losing the map or losing the ability to interpret it could be fatal.

The Edge of Memory: How Long Were Ancient Stories Preserved?

As many ancient stories refer to events that can be dated, often with considerable precision using techniques like radiocarbon dating, it is possible to assign ages to the oral stories describing those events. The Dyrbal stories of the formation of Lake Eacham are likely to be more than 9000 years old, and they are not alone in this antiquity. For instance, the Klamath peoples of modern Oregon (western USA) have stories about the formation of Crater Lake after the eruption of Mt Mazama 7600 years ago, while stories about the hero Amirani in the Caucasus Mountains of the Republic of Georgia are plausibly related to the most recent eruption of Mt Kasbek 6000 years ago.⁹

The Australian stories about coastal land loss are older than this because the ocean surface around Australia reached its present level about 7000 years ago after around ten millennia of sea-surface rise following the last great ice age. The stories about the submergence of Backstairs Passage, between Kangaroo Island and the Fleurieu Peninsula, are estimated to be just over 10,000 years old.

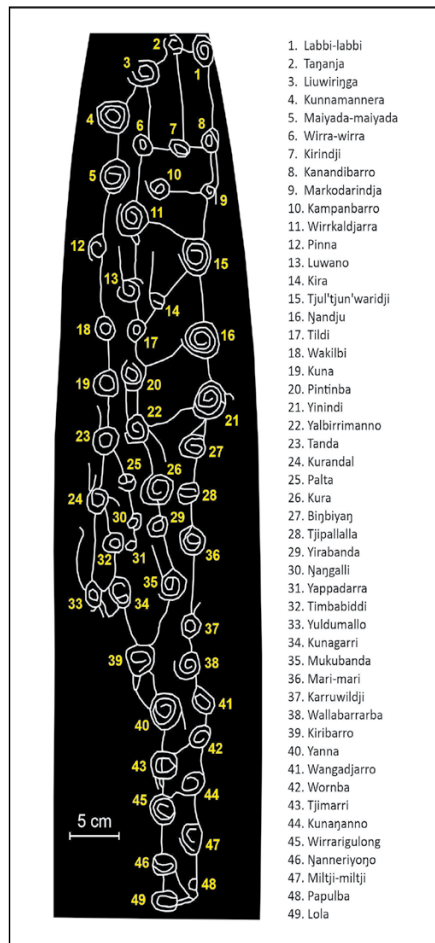


Figure 4. Redrawing of a carved spear-thrower of the Pitjantjatjara people showing the locations of forty-nine waterholes in the surrounding desert.

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- 6 Patrick Nunn and Nick Reid, 'Ancient Aboriginal Stories Preserve History of a Rise in Sea Level,' *The Conversation*, January 13, 2015, <https://theconversation.com/ancient-aboriginal-stories-preserve-history-of-a-rise-in-sea-level-36010/>
- 7 Nick Reid, 'Deep Water Knowledge: Indigenous Recollections of Rising Ocean Levels,' in *Australian Perspectives on Indigenous Knowledge*, eds. M. Langton and M-S. Fletcher (Melbourne: University of Melbourne Press, in press).
- 8 Patrick Nunn, unpublished research.
- 9 Patrick Nunn, *The Edge of Memory: Ancient Stories, Oral Tradition and the Post-Glacial World* (London: Bloomsbury, 2018).
- 10 R. M. Berndt, 'Some Aspects of Jaralde Culture, South Australia,' *Oceania* 11:2 (1940): 164-185.
- 11 Patrick D. Nunn & Nicholas J. Reid, 'Aboriginal Memories of Inundation of the Australian Coast Dating from More than 7000 Years Ago,' *Australian Geographer* 47:1 (2016): 11-47, <https://doi.org/10.1080/00049182.2015.1077539>. Note that BP means years Before Present, where 'present' is the year 1950.

That figure seems to be close to the 'edge of memory', the maximum time in optimal conditions that people in oral societies can retain their memories of particular historical events. One factor is the isolation of particular societies—the more mixing you have with people from other places, the more diluted your traditions become. Australia ticks this box as most Australians remained isolated from the world beyond for almost all of the 70,000 years they have lived there.

For such traditions to remain alive for so long you also need an excellent system for passing them on, something that is both a product of cultural practice but also helped by an ongoing need for knowledge to survive. And Australia, owing largely to its aridity, was an uncommonly harsh place for people to live. Knowledge was key to survival.