

Deep Time

There is limited knowledge about what life was like for Aboriginal People during **Deep Time**¹ in the Tamar/Kanamaluka valley because very little archaeological research has been undertaken in this area of Tasmania.² Therefore, conclusions about the lifeways³ of the First Tasmanians before colonisation in the area are based on two sources of information: extrapolation⁴ and informed speculation from **primary sources** written during the colonial period, and **cultural knowledge** from contemporary Tasmanian Aboriginal People.

Much of what we know about Aboriginal People in the distant past is derived from commentary about them made by early explorers and colonists. But we must keep in mind that the opinions of Europeans were formed through the biased lens of 18th and 19th century imperialism, colonisation, Christianity and a belief in their cultural superiority. Ultimately, the colonisers saw the First Tasmanians as 'primitive' and inferior.

The other source is the cultural knowledge that has been passed down through the generations of Tasmanian Aboriginal People who survived the devastating consequences of colonisation. Tasmanian Aboriginal People are culturally and spiritually connected to every aspect of the lands on which they live. They believe everything was created by Ancestral Beings who travelled from the sky-world across the Milky Way to Tasmania. Out of the earth, these beings formed the First People, trees, plants, and animals. They cut the riverways with stone tools, built the mountains and brought fire to the people.⁵

Tasmanian Aboriginal People have a deep, long-standing belief that they have always been here which reflects their ancient and intimate connection with the land. In spite of the devastation caused by colonisation, significant cultural knowledge has been passed down through the generations from survivors to Tasmanian Aboriginal People today.

Absence of evidence not evidence of absence

A problem with finding archaeological evidence of Aboriginal People in the Tamar/Kanamaluka area is that the landscape was – and still is - dominated by rivers. Many places frequented by the First Tasmanians for food gathering and production, social meetings and ceremonies were located along rivers. A general rule in archaeology is that material culture left behind in river landscapes does not survive well in the archaeological record. The few artefacts that have been found could well have been deposited by river water, not humans. Conversely, artefacts that were created by the First Tasmanians and once existed in the archaeological record could have been washed away and destroyed by slow - or even violent - water action like flooding over long periods of time.

Another problem is that much of the material culture of Aboriginal People is organic (e.g., reed watercraft, grass baskets, skin clothing, bark shelters) which means that the materials quickly decomposed and do not survive in the archaeological record. The lifeways of Aboriginal People left little impact on their environment; this was (and still is) an integral part of their philosophy of caring for Country: 'tread lightly and only leave your footprints' and 'only take what you need'.

What types of artefacts have survived in the archaeological record?

Artefacts like these have survived in the archaeological record: bone, stone and some wooden implements and weapons; large shells deposited in heaps after eating seafood meals (living sites or 'middens'); small, delicate *mairreener* shells that were picked from rainbow kelp, cleaned and processed by women to make beautiful necklaces for personal adornment. In many places there is evidence of ochre mines and in the northwest and west coasts, there are depressions that mark the places where Aboriginal People erected circular huts for shelter. Everyday activities and cultural practices like these are subtle traces of the presence of Tasmanian Aboriginal People in the Kanamaluka/Tamar area for thousands of generations.

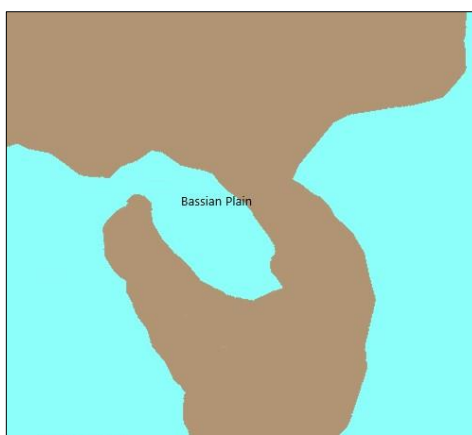
Why are there no Tasmanian Dinosaurs?

There is a creature called '**Tasmaniosaurus**' which was found in 1960 at the **Knocklofty** sandstone quarry west of Hobart. It was like a cross between a dinosaur and a crocodile, but it doesn't really qualify as a 'dinosaur' because it is a type of reptile from which dinosaurs evolved. *Tasmaniosaurus* has been dated to the Triassic period, between 252 to 201 million years ago. Most dinosaur fossils in Australia have been found in Queensland, South Australia, and Victoria during the Cretaceous Period (145 million to 66 million years ago) when the climate was wetter and warmer.⁶

Pleistocene Period, 1.6 million to 11,700 years ago

The Pleistocene period covers an enormous expanse of time: from 1.6 million to 11,700 years ago and is distinguished by a series of Ice Ages that came and went, depending on the climatic conditions.

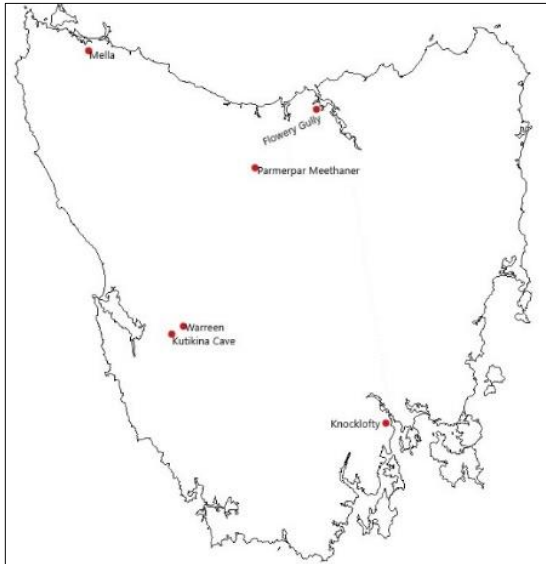
During the Pleistocene, Australia was part of a great, southern megacontinent which scientists call **Sahul**⁷, made up of New Guinea, mainland Australia, and Tasmania. Much of the earth's water had turned to ice, so that sea levels were about 150 meters lower than they are today. Much of what was Sahul's coastline during the Pleistocene is now submerged, forming Australia's current coastline. Giant marsupials called **megafauna**, such as the huge marsupial *Diprotodon*, roamed the landscapes of Sahul.



Southern Sahul around 14,000 years ago
(L. Zarmati)

A genomic⁸ study undertaken in 2016 by an international team of academics and Elders from various Aboriginal communities concluded that the ancestors of the First Australians began moving out of Africa around 72,000 years ago and made their way south across enormous land masses and waterways towards the great southern continent.⁹ There are several theories about how they reached Sahul (by foot, by watercraft) but it is possible we may never know exactly how they arrived.

The earliest archaeological evidence to date of Tasmanian Aboriginal People comes from the Pleistocene period when Tasmania was still connected to the mainland. Archaeological evidence indicates that Aboriginal people occupied **Warreen Cave** and **Parmerpar Meethaner**, located in the Tasmanian Wilderness World Heritage Area (TWWHA), suggesting humans arrived there between 43,000 and 40,000 years ago. This makes them the oldest known Aboriginal sites in Tasmania.¹⁰



Deep Time sites in Tasmania (L. Zarmati)

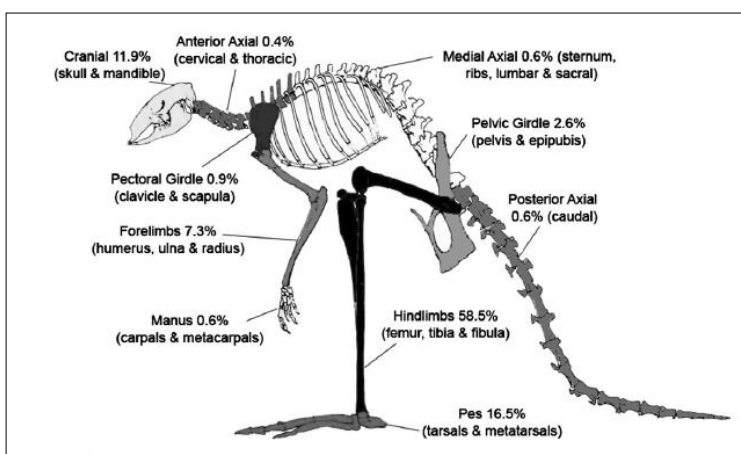
Kutikina Cave

One of the most important sites in Australia for the Pleistocene Period is **Kutikina Cave**, located on the Franklin River in the World Heritage listed Tasmanian wilderness. Kutikina Cave has great spiritual significance for the Tasmanian Aboriginal community today. It is one of several sites returned to the Tasmanian Aboriginal community and they are responsible for its management.

The site was excavated by a team led by archaeologists Dr Rhys Jones and Don Ranson in the 1980s. Over 250,000 fragments of bone and 75,000 stone artefacts were recovered from a small area. The cave has yielded evidence of Aboriginal People who sheltered there around 30,000 years ago.

Archaeologists uncovered a complex and sophisticated system of hearths and fireplaces, dated to around 28,000 years ago, which suggests that Aboriginal People were skilled in the use of fire for cooking and warmth. A variety of stone tools, including knives, scrapers, grindstones, anvils and hammerstones, as well as flaked and ground stone tools were also found. They were probably used for hunting and food preparation.

Analysis of the animal bones by zooarchaeologists¹¹ in the 1990s and early 2000s revealed that they belonged to two species: **Bennett's Wallaby** (*Macropus rufogriseus*) and the **Common Wombat** (*Vombatus ursinus*). However, only certain body parts, not complete skeletons of the two animals were found.



Outline of Bennett's wallaby skeleton showing body parts most frequently eaten by Aboriginal People (Garvey 2010, p.145).

The scientists noticed there were more discarded wallaby than wombat bones. Eleven of the wallaby bones had been deliberately broken and shaped into points. Some of the wallaby bones were worn at the end, showing frequent use, possibly to make clothing.

Examination of the wombat bones revealed there were more bones from the front of the wombat's body (front legs, head, and chest) than its meaty back legs. This suggests that Aboriginal People chose to eat more wallaby than wombat because they wanted the nutrients from the wallaby's fat stores. The fat contained healthier, unsaturated fats that tasted better and kept them satisfied for longer. They also chose not to eat the wombat's meaty-hindlimbs and pelvis, instead preferring the meat on the forequarter of the animal. This fatty area may have been easier to access.¹²

Professor Sandra Bowdler uses archaeological evidence to paint a compelling picture of what life may have been like for Aboriginal People at this time:

The Aboriginal people of Tasmania have had a long and complex association with the Bass Strait Islands. An early interaction with the exposed Bassian Plain was manifested in the establishment of the Bassian Nation, a possibly unique human-land relationship with a now vanished environment. The archaeological record only hints at what this culture was like, when Tasmanian Aboriginal people grappled with an arid windy plain, with sparse and scattered resources away from the ancient coast, between 23,000 and 18,000 years ago. As sea levels rose with the melting of the glacial ice, the people retreated to what became increasingly isolated land masses and finally the islands as they are today. Dense archaeological deposits which appear with archaeological abruptness between 8000 and 6000 years ago at Rocky Cape and Cave Bay Cave suggest people who were closely familiar with the resources of the sea. There is no evidence to tell us whether this marine adaptation was in place 23,000 years ago and supported the Bassian Nation, or whether it developed some time after 18,000 years ago. It seems in any case that these people were able to survive for some time on their new island homes.¹³

Holocene Period, 11,700 years ago to the present

Around 11,700 years ago, the climate became much warmer which caused the polar ice caps to melt and sea levels to rise. As a result, Tasmania and New Guinea were cut off from mainland Australia by the great expanse of water we know today as Bass Strait. Tasmanian Aboriginal People were separated from the rest of the world for around 11,000 years before colonisation.

What was the landscape like when the First Tasmanians lived in the Tamar/Kanamaluka river area?

Between 14,000 and 11,000 years ago, temperatures increased, the ice melted and seas gradually rose separating Tasmania from Victoria. The sea reached its present level by about 6,500 years ago.

The Tamar River was once a small freshwater stream that flowed into a central area in the centre of the present-day Bass Strait. This lake was ringed to the east and west by bands of land above sea level that linked Tasmania to the mainland. The western arm of land around the central lake gradually became submerged as the sea level rose, giving way to the formation of a west-facing saltwater harbour. Later, with the submersion of the higher eastern arm, Tasmania would be completely cut off, creating Bass Strait. The Furneaux Islands serve as a reminder of the previous link. The Yarra in Victoria may have been a tributary of the larger Tamar River.¹⁴ Port Dalrymple probably became a tidal river area about 14,000 to 9,000 years ago, which considerably changed the ecology. As the river widened the people on the western side of the river became separated from the eastern people. The coastal and riverine camp sites and any archaeological evidence of human occupation of the area up to at least 6,000 years ago is now likely submerged underwater; there may still be undiscovered sites inland that may still yield evidence of occupation.

An Aboriginal bone artefact was found amongst a fossil bone deposit in a limestone cave near **Flowery Gully** on the east bank of the northern reaches of the Tamar River. It was radiocarbon dated to 7,080 years ago and is so far the earliest and only dated evidence of Aboriginal People in the Tamar Valley.¹⁵

Notes and references

¹ When applied to Australia's past, 'Deep Time' describes the interval between the arrival of First Nations Peoples to the land now called 'Australia' (currently estimated to be around 65,000 years ago), and the establishment of the first British colony at Sydney Cove in January 1788.

² An Aboriginal bone artefact found amongst a fossil bone deposit in a limestone cave situated on the east bank of the northern reaches of the Tamar River was radiocarbon dated to 7,000 years ago and to date is the earliest and only dated evidence of occupation in the Tamar Valley (Sue Kee, *Midlands Aboriginal Archaeological Site Survey*, Occasional Paper 26, Tasmania: Department of Parks, Wildlife and Heritage, 1990, p. vii).

³ The practices and customs of a group of people.

⁴ 'Extrapolation' is making a conclusion about something unknown based on what is known.

⁵ See 'Confluence: Cataract Gorge', *The Orb*,
<https://cataractgorge.theorb.tas.gov.au/view/confluence/becoming-and-being/1>

⁶ Kean, Z. (2022). 'Looking back at a time when Tasmania's ancient reptiles and dinosaurs packed a bite', ABC News. <https://www.abc.net.au/news/2022-12-10/ancient-tasmanian-reptiles-and-dinosaurs-tasmaniosaurus/101748220>

⁷ The name 'Sahul' comes from 'Sahoel', the name of a submerged sandbank between Australia and Timor that appeared on Dutch maps of the 17th century.

⁸ A study of the complete set of genes in a cell or organism.

⁹ Malaspina, A.S., Westaway, M., Muller, C. et al. (2016). A genomic history of Aboriginal Australia. *Nature* 538, 207–214. <https://doi.org/10.1038/nature18299>

¹⁰ 'Firm evidence for early people in Tasmania derives from Southwest Tasmania, from several sites (e.g., Warreen, Parmerpar Meethaner) with a time frame of 35,000 (40,000 cal BP) to 10,000 years ago', (p. 211). Bowdler, S. (2015). The Bass Strait Islands revisited, *Quaternary International* 385, 206-218.

¹¹ Zooarchaeologists specialise in the study of animal remains in archaeological contexts.

¹² Garvey, J. (2010). Economic anatomy of the Bennett's wallaby (*Macropus rufogriseus*): Implications for understanding human hunting strategies in late Pleistocene Tasmania, *Quaternary International* 211, 144–156.

¹³ Bowdler, S. (2015). The Bass Strait Islands revisited, *Quaternary International* 385, p. 216.

¹⁴ The Tamar River is a drowned river valley and is technically an estuary, not a river. An estuary is the place where the water meets the sea.

¹⁵ Kee, S. (1990). *Midlands Aboriginal Archaeological Site Survey*, Occasional Paper 26, Tasmania: Department of Parks, Wildlife and Heritage, p. 51.