

Aboriginal Memories of Inundation of the Australian Coast Dating from More than 7000 Years Ago

Date: 7 September, 2015

Source: [Australian Geographer](#)

Authors: Patrick D. Nunn & Nicholas J. Reid

Map of Australia showing the 21 coastal locations from which Aboriginal stories about coastal inundation are described in the *Australian Geographer* paper; also shown is the extent of the continental shelf that was exposed during the low sea-level stage of the Last Glacial Maximum, about 20,000 years ago. Image credit: Patrick Nunn / Nicholas Reid.



The research paper 'Aboriginal Memories of Inundation of the Australian Coast Dating from More than 7000 Years Ago' by Patrick D. Nunn and Nicholas J. Reid explores the Australian Aboriginal oral traditions that recall coastal inundations from over 7,000 years ago. By analysing narratives from 21 coastal locations across Australia, such as the stories from the Nganguraku people of Spencer Gulf who remember when their land was "a valley filled with a line of fresh-water lagoons" before the sea's arrival, and the Yolngu of Elcho Island, who tell of the creation of their island through dramatic sea-level rises, the study illustrates the precision with which these communities have preserved environmental histories.

Aboriginal storytelling practices, which value the accuracy and the ritual importance of transmitting knowledge, have enabled the preservation of detailed environmental changes over millennia. The stories are often taught systematically, where "a particular society places great importance on traditional knowledge and evolves effective culturally embedded ways of transmitting it to each new generation." This cultural framework has not only kept the stories alive but has ensured they remain a valuable source of historical and environmental understanding.

The authors note that the oral traditions, "...despite deriving from almost every part of the Australian coast, say essentially the same thing," demonstrating a remarkable consistency and breadth across Aboriginal cultures. The paper systematically correlates these oral histories with geological data on past sea levels, connecting these ancient stories to environmental events identifiable in the geological records. The joining of these two histories supports both forms of recording as accurate and potent historical accounts.

The study highlights Aboriginal oral histories' extraordinary capability to serve as precise records of historical sea-level changes. This collaboration of First Nations peoples' knowledge and scientific research opens new avenues for understanding past climatic events and emphasises the importance of preserving these oral traditions as a resource for future generations.¹

Human refugia in Australia During the Last Glacial Maximum and Terminal Pleistocene: A Geospatial Analysis of the 25e12 ka Australian Archaeological Record

Date: 13 February, 2013

Source: Journal of Archaeological Science

Authors: Alan N Williams et.al.



The research paper by Alan N. Williams and colleagues presents a detailed analysis of how Aboriginal Australian populations responded to climatic challenges during the Last Glacial Maximum (LGM) and the Antarctic Cold Reversal (ACR) by examining archaeological evidence and geospatial data. The study focuses on identifying refugia, which are areas where populations survived during harsh climatic conditions.

Specific examples of archaeological evidence are crucial in illustrating these demographic patterns. For instance, the study notes that "during the LGM many archaeological sites were abandoned and not re-occupied until the early Holocene" such as Cloggs Cave, Serpent's Glen rockshelter and Mandu Mandu rockshelter. The paper states, "sites that contain archaeological deposits dating to the Terminal Pleistocene typically reveal discrete hearths and/or low numbers of artefacts, suggesting only ephemeral use of the landscape." This indicates a significant reduction in population and activity during these periods, reflecting the environmental stresses experienced.

The authors detail that "a large number of the refugia were in close proximity to glaciated areas during the LGM, and probably benefitted from increased summer snowmelt along the major river systems." This relationship between environmental features and human settlement patterns highlights how Aboriginal populations adapted to their changing surroundings. The Tasmanian Central Highlands are cited as a key refugium due to their glaciated conditions, which likely provided reliable water sources.

Williams and his colleagues encapsulate the significance of their findings in the broader context of Aboriginal resilience and adaptation to climate change, stating: "This study demonstrates a methodology for identifying refugia and suggests a model for understanding dynamic human-landscape interactions in prehistoric contexts, which may be applicable in other regions experiencing similar climatic fluctuations."

By weaving together geospatial data, archaeological evidence and historical climatology, the paper provides a nuanced understanding of the survival strategies of Aboriginal populations during the Late Pleistocene in Australia.²

Murujuga Desert, Tide and Dreaming: Understanding Early Rock Art Production and Lifeways in Northwest Australia

Date: 2018

Source: [The University of Western Australia](#)

Author: Dr Megan Berry



Dr. Megan Berry's PhD thesis titled, "*Murujuga Desert, Tide, and Dreaming: Understanding Early Rock Art Production and Lifeways in Northwest Australia*," examines ancient rock art on Australia's northwest coast, specifically within the Murujuga area, also known as the Dampier Archipelago. This study sheds light on how Aboriginal people in ancient times responded to environmental and social changes through their art.

Murujuga's rock art is one of the world's most extensive collections, with engravings dating back to the Pleistocene era. These engravings are crucial for understanding how early inhabitants lived and adapted over thousands of years. Berry emphasises, "*rock art is symbolic behaviour that reflects the in situ response of Indigenous populations to extreme environmental, climatic, and social change*" (p. ii).

One fascinating aspect of Berry's research is how the rock art depicts changes in the landscape and animal life, which were closely tied to climate shifts. For example, the thesis discusses engravings of marine animals and scenes of hunting, which not only reflect the rich biodiversity of the area but also the adaptation to rising sea levels and shifting coastlines. The thesis suggests these artworks "*mapped onto and engraved motifs that mitigated and reflected their changing world*" (p. iii).

Berry also highlights specific motifs that respond to environmental transformations, such as the engravings at Rosemary Island. These artworks, which include detailed depictions of marine life, demonstrate the community's shift toward coastal resources as sea levels rose after the Last Glacial Maximum. Berry explains, "*there is evidence for continued, ephemeral occupation after the sundering of the outer landscapes*" (p. ii), indicating a sustained but altered human presence in response to changing geographic conditions.

Throughout the thesis, Berry uses stylistic, spatial and archaeological analysis to show how the rock art of Murujuga is not just artistic expression but also a historical record of human adaptation to a transforming environment. This insight is significant for understanding the broader impacts of climate change on human societies.

Berry's thesis not only documents the enduring heritage of Aboriginal people but also illustrates the importance of traditional knowledges in understanding the past. This research provides a vital perspective on how ancient communities observed and responded to the world around them through the medium of rock art.³

References

1. Patrick D. Nunn & Nicholas J. Reid (2016) Aboriginal Memories of Inundation of the Australian Coast Dating from More than 7000 Years Ago, *Australian Geographer*, 47:1, 11-47, DOI: 10.1080/00049182.2015.1077539
2. Alan N. Williams, et. al. (2013) Human refugia in Australia during the Last Glacial Maximum and Terminal Pleistocene: a geospatial analysis of the 25e12 ka Australian archaeological record, *Journal of Archeological Science*, 40 (2013) 4612-4625
3. Berry, M. R. (2018). *Murujuga Desert, Tide, and Dreaming: Understanding Early Rock Art Production and Lifeways in Northwest Australia* [Doctoral dissertation, University of Western Australia]. University of Western Australia Research Repository.