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Recognition and value of submerged prehistoric landscape resources in Australia

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ABSTRACT

Maritime cultural heritage is not just restricted to shipwrecks, historic waterfronts and contemporary Indigenous associations with marine and coastal areas, but also includes Indigenous coastal and submerged prehistoric archaeological sites and landscapes. For most of the 65,000 years or so of human occupation in Australia, sea level has been lower than present, yet we know almost nothing about submerged landscapes and their associated cultural heritage. Improved mapping of the physical continental shelf is providing an insight into these landscapes from a geomorphological perspective but the prehistoric cultural potential is as yet unrealised. The unknown nature of this record means that it is overlooked in any pre-development assessment along the intertidal and offshore zones. The result is the potential damage or loss of maritime prehistoric cultural resources, and unrealized socioeconomic benefit. Focused on Western Australia, this article aims to raise awareness of this unrecognised cultural resource, with a view towards developing a more inclusive policy and one that specifically involves Traditional Owners in the protection of maritime cultural heritage in Australia. This is particularly apposite given seascapes are increasingly included in Native Title determinations, Indigenous Protected Areas and co-managed marine parks across Australia.

1. Introduction

In recent decades, ethnographic research has begun to reveal the complex cultural values and connections Australia's Indigenous peoples have with the maritime environments ('sea country') surrounding this island continent. Increasingly, Indigenous peoples' connection to sea country is being formally recognised through native title determinations (Morphy and Morphy, 2006), collaborative governance of Indigenous Protected Areas (IPAs) and Indigenous engagement in marine parks and fisheries management (Smyth and Isherwood, 2016). In the Northern Territory, 80 per cent of the intertidal zone is legally owned by coastal Aboriginal groups under land rights legislation (Fig. 1). Complementing this process of recognition, research has documented traditional knowledge of marine ecosystems and resources, and cultural mapping has revealed the presence of sacred sites and Dreaming tracks (i.e. mythological sites) in the sea, some of which correspond with geographical features such as valleys, rivers and estuaries that are part of ancient landscapes now submerged by rising sea levels over the last 20,000 cal. BP (Bradley, 2010; Nunn and Reid, 2015). Less effort and recognition, however, has been directed towards searching for material or archaeological evidence of Indigenous peoples' occupation, use and management of these landscapes during the millennia before their inundation by the sea.

Across the world there is an increasing awareness of submerged prehistoric landscapes, with over 3000 known sites in the Northern Hemisphere alone (Bailey and Flemming, 2008). By contrast, the prehistoric cultural archaeological record of Australia's continental shelf is largely unknown, and represents an under-researched gap in our understanding of Indigenous peoples' interactions with Australia's palaeoenvironments and resources. This represents a major gap in global narratives not only in coastal archaeology but also in World Prehistory (see also Benjamin and Bailey, 2017). With the rapid expansion of marine commercial developments across many areas of the globe, a key challenge is to minimise the threats to the marine archaeological resource whilst maximising the opportunities for its collaborative monitoring and management (Flemming, 2004; Evans et al., 2009; Ward et al., 2014). To this end Australia is in a privileged situation of being able to build on the collaborative research in the Northern Hemisphere to begin to develop a much needed Australasian insight to the international field of submerged landscape studies and global prehistory.

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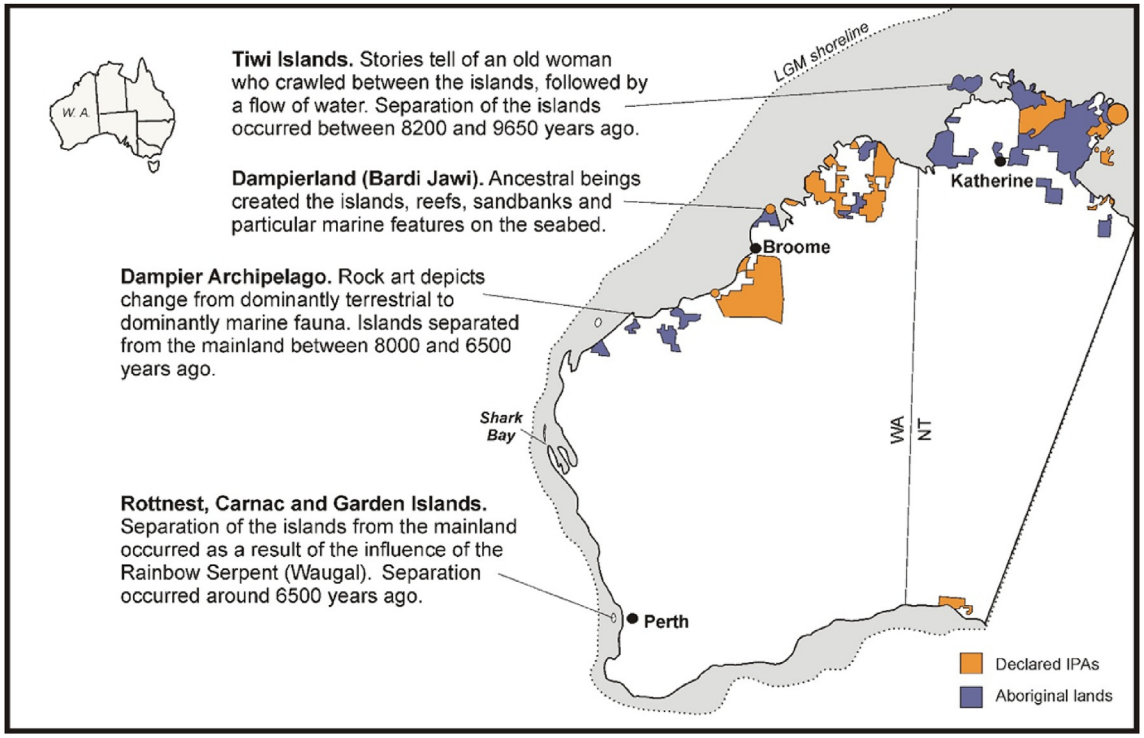

Fig. 1. Overview of ethnographic links with offshore landscapes in Western Australia (content sourced from Green, 1988; Mulvaney, 2015; Nunn and Reid, 2015). Map also shows declared Indigenous Protected Areas (IPAs) and Aboriginal lands along the coast (inland areas not depicted).

Moreover, we have the opportunity to collaborate with contemporary Indigenous cultures to assist in the quest for, and understanding of, any archaeological evidence that may have survived marine inundation of the continental shelf.

In this paper we wish to raise awareness of the significant potential for submerged maritime cultural resources on the Australian continental shelf as part of acknowledging Indigenous people's interests across the current land and sea boundaries. We focus mainly on coastal Western Australia (WA) where some of the earliest records of human occupation exist (O'Connor, 1999; Przywolnik, 2002, 2005; Veth et al., 2017) amongst areas of intense active commercial development (e.g. Mulvaney, 2011, 2015; Ward et al., 2016). Here large areas of the continental margin are currently being developed for natural reserves of oil and gas, and billions of dollars committed to further development at the coastline (Oceans Policy Science Advisory Group, 2013; The Blueprint for Marine Science 2050 Report, 2015). Given this forward commitment, the need to understand those areas subject to potential development from both environmental and cultural perspectives is paramount. At the same time, research tied to such development offers considerable potential for the discovery and greater understanding of submerged landscapes along WA's vast coastline (20,871 km), which might otherwise be too costly to investigate as pure research. This submerged resource effectively represents *aqua incognita* and the cost of ignoring this unrecognised (and untapped) resource is arguably high and not aligned to international Environmental Impact Statement (EIS) standards.

2. Sea country

> *"Indigenous people still relate to land that was inundated by sea during the last ice age and regard it as their own"* (Anon. in Smyth, 2002: 11).

When considering Australia's marine cultural heritage, it is vital to incorporate the ongoing connection Aboriginal and Torres Strait Islander peoples have to a living heritage.[1] To maritime Indigenous groups, 'Sea Country' or 'Saltwater Country' includes coastal, island and marine environments (McNiven, 2008; Smyth, 2002, 2007). This connection is not only contemporary but also relates to many millennia of sea-level changes, which at their lowest ~22,000 years ago saw relative sea levels ~130 m below present and coastlines up to 300 km or more farther offshore than today. Recently collected Indigenous histories around Australia recount the rise of the ocean and indicate that this connection may extend to the late Pleistocene (Bradley, 2010; Nunn and Reid, 2015). Green (1988), for example, reported that Bardi and Jawi people of the Dampier Peninsula and Buccaneer Archipelago (Fig. 1) believe that ancestral beings travelled the seas and created the islands, reefs, sandbanks and marine species found within the sea (see also Smyth, 2007). These ancestral beings named all the features in the environment *including particular places on the seabed* [our emphasis] where certain ritual activities occurred which, in some cases, resulted in ritual paraphernalia being left behind metamorphosing into particular marine features (Green, 1988). These rituals passed through the islands and the Dampierland Peninsula and travelled south along the coast, and south-east into the interior. In other words, Indigenous Australians view both onshore (present) and offshore (past) components of Sea Country as a continuum.

In NW Australia many traditional marine activities revolve around the huge tidal range and gently sloping seabed that result in vast areas of intertidal land and reef flats available for exploitation (Smyth, 2007), and retrodictive modelling indicates such intertidal areas were as great or greater in the past (Ward et al., 2013). Such resource-rich contexts were as important to Aboriginal people both past (McNiven, 2003; Manne and Veth, 2015; Veth et al., 2017) and present (Jackson et al., 2012) and are critical in linking land and sea (see also Khakzad et al., 2015). In the Shark Bay area (Fig. 1), deeply held knowledge about the land and the sea country informs where people continue to hunt fish and gather today. Cultural knowledge about the connections between, for example Point Peron and Dirk Hartog Island, informs the traditional knowledge of contemporary reef features which are rich maritime resources and favoured fishing grounds. Knowledge about freshwater sources and soaks (i.e. freshwater found by digging in sand) in the

[1] See also https://australianmuseum.net.au/event/garrigarrang-sea-country.