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**To cite this article:** Jonathan Benjamin (2024) Through-water communication: Australian maritime archaeology in a changing world, *Australian Archaeology*, 90:1, 11-13, DOI: [10.1080/03122417.2024.2317518](https://doi.org/10.1080/03122417.2024.2317518)

**To link to this article:** <https://doi.org/10.1080/03122417.2024.2317518>



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Published online: 24 May 2024.



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## Through-water communication: Australian maritime archaeology in a changing world

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In 2002, Charlie Dortch published a piece in *Australian Archaeology* titled ‘Preliminary underwater survey for rock engravings and other sea floor sites in the Dampier Archipelago, Pilbara region, Western Australia’, in which he laid the foundations for the possibility of finding submerged sites:

The investigative potential of underwater survey for submerged Aboriginal sites in the archipelago seems limited to petroglyphs, rock faces flaked in quarrying and perhaps indurated occupation deposits. Surge, storms, sedimentary infilling and marine conditions generally have probably obliterated or buried other kinds of sites (Dortch 2002:37).

In 2019 the Deep History of Sea Country (DHSC) project proved that Dortch was right to search for submerged sites in Murujuga (Dampier Archipelago), but that his assumption that marine conditions would result in complete site destruction was incorrect and did not consider the discrete, protected conditions such as those found in sheltered channels and seabed depressions, which ultimately led to the documentation of two new underwater archaeological sites in the form of lithic scatters (Benjamin et al. 2020, 2023; O’Leary et al. 2023).

The assumption that all ancient archaeological sites were automatically destroyed by postglacial sea-level rise has now been disproven across the world (Bynoe et al. 2023). No doubt many archaeological sites would have been destroyed. But so too would conditions exist in a variety of settings where archaeological sites can be preserved for millennia. In Europe, the SPLASHCOS Network went to great lengths to consolidate the discipline of submerged landscape archaeology, which combines terrestrial archaeology, underwater archaeology, and marine geosciences (Bailey et al. 2020). Similar initiatives have been undertaken in North America such as the Aquaterra Network. With the Australian Research Council (ARC) funding of the DHSC project, we

have now begun to scratch the surface of the seabed in Australian archaeology (Figure 1).

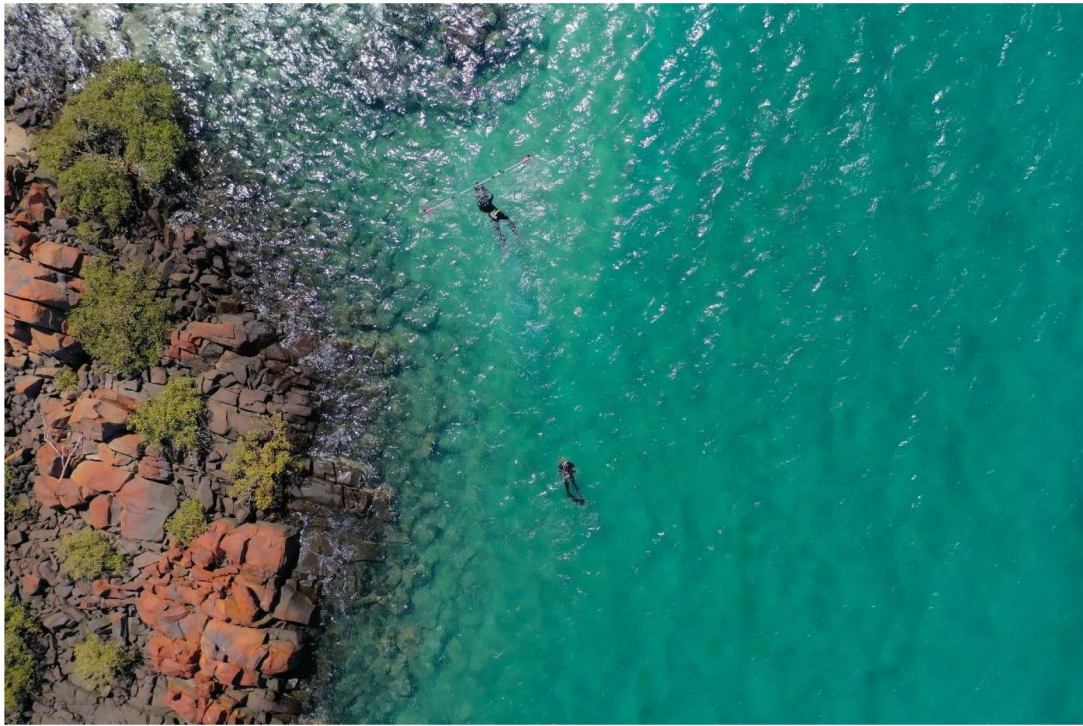
The impacts of the DHSC project results are taking form, with significant interest across a variety of stakeholders and communities, including industry and the pre-development planning process. In Europe and America, pre-development environmental impact assessments have for decades included submerged archaeology. There can be no doubt that offshore developments need to consider Indigenous archaeology. There is now a need for a new generation of practitioners trained to research and manage submerged cultural landscapes.

Flinders University’s postgraduate degree in Maritime Archaeology program (FUMAP) celebrated its 20th anniversary in 2022. This means that I have been a part of the FUMAP community for nearly half of its formal existence. With a prior background in submerged European archaeology, when I accepted the position in 2013, I had a lot to learn and have been fortunate enough to work with both mentors and students, local communities, rangers and Elders, all the while staying focused on how we can deliver a well-rounded educational environment in a maritime program that includes all chronological periods of coastal and underwater archaeology, spanning from the Pleistocene to World War II. There are many people who have contributed to the development of the discipline of submerged landscape archaeology in Australia (too many to list here). But I particularly acknowledge Mick O’Leary of the University of Western Australia who has crossed over into underwater cultural heritage (UCH) from marine geosciences and without whom the DHSC project would not have been a success. Similarly, it was Wendy van Duivenvoorde who had the vision to hire into the position of Lecturer of Maritime Archaeology in 2013, someone who knew relatively

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**Figure 1.** Archaeologists must work to erase the divide between land and sea on what was previously a seamless cultural landscape. Image shows a diver-based, multicamera photogrammetric survey undertaken in 2022 by John McCarthy (Photograph: Jonathan Benjamin, 2022).

little about historical-era maritime sites, and wholeheartedly intended to take the program into a new direction: the maritime archaeology of deep time. This was a major change for FUMAP, and we have not looked back, now teaching a semester-long postgraduate module on *The Archaeology of Submerged Landscapes*.

A sustainable maritime archaeological community requires a culture focused on safe diving and an understanding of the responsibilities that come from diving while classified as a worker. The late Professor George Bass, who authored the benchmark *Archaeology Under Water* (1966) is often credited for having said it is easier to teach an archaeologist to dive than it is to teach a diver to become an archaeologist, an observation also made by Professor John Goggin in 1959 (Goggin 1960:350). In modern maritime archaeology, we require professionalism in aspects of both diving and archaeological training, and consider qualification, competencies, compliance and work health and safety regulations which Bass would not have encountered at the beginning of his career as a diving archaeologist. In Australia, diving for archaeology has been complicated by several factors, including regulatory requirements which vary from state-to-state and a national standard for scientific diving (AS/NZS 2299.2) that has not been updated (to keep up with the changing regulations) since 2002. To many organisations, including universities, government agencies and heritage professionals, the

questions of who is allowed to dive for archaeology and which qualifications are fit-for-purpose, have been confusing. This has only served to deter archaeological training and project work, which has stunted the development of the discipline, particularly in training underwater excavation methods.

It is now clear that recreational diving qualifications may be suitable for entry-level, restricted student divers, but that more serious consideration of responsibilities as part of the workforce requires further training and experience. However, the normal training route for 'occupational divers' (which meets the Australian Standard series 2815, referenced in most state regulations) has typically been undertaken by private commercial diving schools, accredited through a private registered training organisation. Training in commercial diving, however, does not necessarily prepare one for a career in underwater archaeology or marine science. Skills, risks, and pressures are different, and the cultures of the sectors are often contrasting. Scientific divers and underwater archaeologists, for the most part, work on SCUBA, with small hand tools, and light powered water dredges or airlifts. There are risks associated with these kinds of activities, and they must be managed in line with regulation and cultural expectations. It is refreshing to see some movement in this space, with more interest in a revitalised scientific diving sector than in past decades and a promise of new scientific diving standards over the horizon.

Recently, the Northern Territory Heritage Branch hosted a workshop on submerged Indigenous heritage immediately prior to the 2022 Australian Archaeological Association Inc. (AAA) Annual Conference in Darwin. This was an important step in recognising that Indigenous UCH needs appropriate treatment in planning and development consents. That prompted the Victorian Government to hold a major symposium in March of 2023, which was attended by over 300 participants, including archaeologists, regulators from the states and the Commonwealth, development proponents, heritage and environmental consultants, researchers, students, and Indigenous participants. In between the events in Darwin and Melbourne, the Commonwealth Government hosted an important milestone for UCH in Australia in February 2023 when the House of Representatives Joint Standing Committee, Treaties held a public hearing on the potential for ratification of the UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001). Anecdotally, much of the attention of UCH protection during the day focused on submerged Indigenous heritage.

With ratification of the UNESCO Convention finally within reach, the laws protecting UCH would change. Australia's current *Underwater Cultural Heritage Act 2018* provides automatic protection to historic shipwrecks, but not submerged Indigenous sites. However, UNESCO's language sets the standard for the automatic protection of *all* UCH sites that are at least 100 years old. This should serve to enshrine equal protection for colonial and Indigenous heritage sites.

I am optimistic for the discipline of maritime archaeology in Australia. There is a new generation of graduates who will leave university with accredited qualifications as professional scientific divers embedded in their postgraduate degrees, who will have been trained to be well-rounded archaeologists, with foundations in how to record historic shipwrecks, anchors and cannon, as well as ancient

submerged palaeosols and stone tools. The discipline of maritime archaeology is expanding in exciting directions that will help shape culture and society for the better.

## Disclosure statement

No potential conflict of interest was reported by the author.

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