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## HISTORIOGRAPHICAL REVIEW

### THE DEEP PAST OF PRE-COLONIAL AUSTRALIA\*

**ABSTRACT.** *Human occupation of Australia dates back to at least 65,000 years. Aboriginal ontologies incorporate deep memories of this past, at times accompanied by a conviction that Aboriginal people have always been there. This poses a problem for historians and archaeologists: how to construct meaningful histories that extend across such a long duration of space and time. While earlier generations of scholars interpreted pre-colonial Aboriginal history as static and unchanging, marked by isolation and cultural conservatism, recent historical scholarship presents Australia's deep past as dynamic and often at the cutting-edge of human technological innovation. This historiographical shift places Aboriginal people at the centre of pre-colonial history by incorporating Aboriginal oral histories and material culture, as well as ethnographic and anthropological accounts. This review considers some of the debates within this expansive and expanding field, focusing in particular on questions relating to Aboriginal agriculture and land management and connections between Aboriginal communities and their Southeast Asian neighbours. At the same time, the study of Australia's deep past has become a venue for confronting colonial legacies, while also providing a new disciplinary approach to the question of reconciliation and the future of Aboriginal sovereignty in Australia.*

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In recent years, the intensification of human-induced climate change and the associated rise to prominence of the concept of the Anthropocene has prompted historians to start to think on bigger scales,<sup>1</sup> just as climate change has also led to a deeper appreciation among scholars of Indigenous environmental practices and land management.<sup>2</sup> Nowhere are these two factors more evident than in Australia, a continent with a history steeped in

\* I would like to thank Chris Wilson, Meg Foster, Sujit Sivasundaram, and members of the World History reading group at Cambridge for their thoughtful comments on earlier drafts of this review.

<sup>1</sup> Alison Bashford, 'The Anthropocene is modern history: reflections on climate and Australian deep time', *Australian Historical Studies*, 44 (2013), pp. 341–9.

<sup>2</sup> Douglas Nakashima, Igor Krupnik, and Jennifer T. Rubis, eds., *Indigenous knowledge for climate change assessment and adaptation* (Cambridge, 2018); Cuthbert Casey Makondo and David S. G. Thomas, 'Climate change adaptation: linking Indigenous knowledge with Western science for effective adaptation', *Environmental Science & Policy*, 88 (2018), pp. 83–91.

deep time and an environment shaped by tens of thousands of years of Indigenous ecological interventions.<sup>3</sup> In 2017, archaeologists used luminescence dating techniques on the Madjedbebe rock shelter in Arnhem Land, Northern Territory, one of Australia's oldest known archaeological sites. They determined that humans had inhabited the site 65,000 years ago, establishing the earliest verifiable date confirming the presence of people on the Australian continent.<sup>4</sup> Many Aboriginal people eschew the obsession of Western science with trying to find the earliest date of their arrival, arguing simply that they 'have always been here', and that their culture is the oldest living culture on earth.<sup>5</sup> The extraordinary antiquity of their history continues to challenge long-held assumptions about human societies and the relationship between humans and the environments they inhabited over many millennia.

Telling a meaningful history that stretches across many tens of thousands of years has presented considerable methodological challenges for historians of Australia's deep past. At the same time, the history of Australia's deep past has been unable to escape the legacies of a colonial past and a continuing colonial present. The British colonization of Australia, which began in 1788, initiated a period of frontier violence and dispossession. Aboriginal people were massacred by white settlers, exposed to devastating diseases, and removed from their ancestral lands.<sup>6</sup> Scientific racism underpinned these acts of genocide,<sup>7</sup> leaving an intellectual legacy that depicted Aboriginal people as naturally and civilizationally inferior to Europeans – a 'stone age people' and a dying race, whose history was not worth studying.<sup>8</sup> Even as subsequent

<sup>3</sup> Tom Griffiths, 'Environmental history, Australian style', *Australian Historical Studies*, 46 (2015), pp. 157–73.

<sup>4</sup> Chris Clarkson et al., 'Human occupation of northern Australia by 65,000 years ago', *Nature*, 547 (2017), pp. 306–10.

<sup>5</sup> See, for example, Larissa Behrendt, 'Indigenous Australians know we're the oldest living culture – it's in our Dreamtime', *Guardian*, 22 Sep. 2016, [www.theguardian.com/commentis-free/2016/sep/22/indigenous-australians-know-were-the-oldest-living-culture-its-in-our-dream-time](http://www.theguardian.com/commentis-free/2016/sep/22/indigenous-australians-know-were-the-oldest-living-culture-its-in-our-dream-time) (accessed 4 Nov. 2019). See also Ann McGrath, 'Deep histories in time, or crossing the Great Divide?', in Ann McGrath and Mary Anne Jebb, eds., *Long history, deep time: deepening histories of place* (Canberra, 2015), p. 7; Billy Griffiths, *Deep time Dreaming: uncovering ancient Australia* (Carlton, 2018), p. 7.

<sup>6</sup> Lyndall Ryan, Jennifer Debenham, William Pascoe, and Mark Brown, 'Colonial frontier massacres in eastern Australia 1788–1872' (2017), <https://c21ch.newcastle.edu.au/colonial-massacres/> (accessed 19 Nov. 2019); Henry Reynolds, *Why weren't we told? A personal search for the truth about our history* (Ringwood, 1999).

<sup>7</sup> For a recent summary of the debate around the term 'genocide' within Australia history, see Philip Dwyer and Lyndall Ryan, 'Reflections on genocide and settler-colonial violence', *History Australia*, 13 (2016), pp. 335–50. See also the Special section on 'Genocide?': Australian Aboriginal history in international perspective, in *Aboriginal History*, 25 (2001), pp. 1–172.

<sup>8</sup> Daisy Bates, *The passing of the Aborigines: a lifetime spent among the natives of Australia* (London, 1938); Harry Allen, 'The past in the present? Archaeological narratives and Aboriginal history', in McGrath and Jebb, eds., *Long history, deep time*, pp. 171–202.

generations of scholars have fought to overturn these views, they remain entrenched among some sections of Australian society.

As a result, historians and archaeologists tended over the past century to present Aboriginal culture and society as static and unchanging over the course of many millennia. In recent years, scholars have begun incorporating mixed methodologies that include Aboriginal oral histories and ethnographic and anthropological accounts alongside new archaeological techniques to challenge this view of a static culture.<sup>9</sup> The result has been an extraordinary flourishing of scholarship that has pushed the bounds of our knowledge about Aboriginal society, economics, culture, and religion over thousands of years prior to written records.<sup>10</sup> Archaeologists and historians have demonstrated that not only were Aboriginal cultures dynamic but they were also at the cutting edge of technological innovation for many millennia.<sup>11</sup> The journey towards these conclusions was not straightforward. Archaeologists Anna Florin and Xavier Carah note that racialized progressivist views of human evolution ‘both delayed the development of prehistoric archaeology in Australia and fuelled the research of more recent decades’ as archaeologists disproved outdated theories and demonstrated the dynamism of Aboriginal social and economic structures.<sup>12</sup>

For Aboriginal authors like Bruce Pascoe – as well as many Aboriginal activists and land rights campaigners – the deep history of Australia forms not only a central part of Aboriginal pride in heritage and culture but also offers exciting possibilities for a future Australia.<sup>13</sup> Within this context, archaeologists and historians are also confronting the need to decolonize their own practices. Ann McGrath has noted that academic historians have struggled to incorporate Aboriginal history telling into their practice, because Aboriginal views of the

<sup>9</sup> Ian J. McNiven, ‘Theoretical challenges of Indigenous archaeology: setting an agenda’, *American Antiquity*, 81 (2016), pp. 27–41; Ian J. McNiven, ‘Ethnoarchaeology, epistemology, ethics’, *World Archaeology*, 48 (2016), pp. 683–6.

<sup>10</sup> This review is based primarily on works published in the last ten years; however, this new body of research builds on a well-established canon of works, including Norman B. Tindale, *Aboriginal tribes of Australia: their terrain, environmental controls, distribution, limits, and proper names* (Berkeley, CA, 1974); John Mulvaney and Johan Kamminga, *Prehistory of Australia* (Washington, DC, 1999); Peter Hiscock, *The archaeology of ancient Australia* (London, 2008); Ian Keen, *Aboriginal economy and society: Australia at the threshold of colonisation* (Oxford, 2004); Harry Lourandos, *Continent of hunter-gatherers: new perspectives in Australian prehistory* (Cambridge, 1997); Josephine Flood, *The original Australians: story of the Aboriginal people* (London, 2006).

<sup>11</sup> Christopher Smith et al., ‘Pursuing social justice through collaborative archaeologies in Aboriginal Australia’, *Archaeologies: Journal of the World Archaeological Congress*, 15 (2019), pp. 536–69, at p. 539.

<sup>12</sup> S. Anna Florin and Xavier Carah, ‘Moving past the “Neolithic problem”: the development and interaction of subsistence systems across northern Sahul’, *Quaternary International*, 489 (2018), pp. 46–62, at p. 48. See also Allen, ‘The past in the present?’.

<sup>13</sup> Bruce Pascoe, *Dark emu: Aboriginal Australia and the birth of agriculture* (London, 2018), pp. 228–9.

past are non-linear. Aboriginal conceptions of history fold both the recent and ancient past together, linking them to present connections with family and landscape. 'Time is multi-layered and mutable. Many view the recent and ancient past as something personal, familial, geological and omnipresent...Many Indigenous Australians do not sense any great chasm dividing the present from the past.'<sup>14</sup> This becomes a problem when dealing with periods of time prior to European colonization, when traditional archives do not exist, and has sometimes contributed to the representation of Aboriginal history as timeless and unchanging.<sup>15</sup> The new historiography of Australia's deep past has required the forging of links with Aboriginal peoples and the foregrounding of Aboriginal perspectives as well as a respect for Aboriginal ways of seeing and utilizing their own histories.<sup>16</sup> The study of Australia's deep past thus offers us more than an insight into the history of human migrations and changing social and economic systems over many millennia. It has also become a central focus for calls for reconciliation and the genuine acknowledgement of Aboriginal sovereignty in present-day Australia.

This review considers some of the recent research undertaken by historians, archaeologists, anthropologists, and ecologists into the pre-colonial history of Australia. I begin by examining prevailing methodological and theoretical questions that researchers in these various disciplines have had to grapple with, including how to incorporate Aboriginal views of the past. I have then selected two debates within this historiography that highlight how researchers have responded to these methodological problems. The first relates to the role of agriculture in pre-colonial Aboriginal communities. Western academia has traditionally categorized Aboriginal societies as hunter-gatherers who never adopted agriculture.<sup>17</sup> Several recent publications have pushed the boundaries of this debate, in turn prompting debates over progressivist views of human development. The second theme questions whether Australia was an isolated continent by looking at evidence for long-term trading connections between northern Australia and maritime Southeast Asia. Debates within this field highlight tensions between historians, anthropologists, and archaeologists over the use of Aboriginal oral testimonies, while also pointing towards new multi-disciplinary approaches to old questions.

## I

Dating the human occupation of the Australian continent has always been at the centre of the study of Australia's deep past. The archaeological findings at

<sup>14</sup> McGrath, 'Deep histories in time', p. 6.

<sup>15</sup> *Ibid.*, pp. 1–2.

<sup>16</sup> Smith et al., 'Pursuing social justice'.

<sup>17</sup> J. P. White, 'New Guinea and Australian prehistory: the "Neolithic problem"', in D. J. Mulvaney and J. Golson, eds., *Aboriginal man and environment in Australia* (Canberra, 1971), pp. 182–95.

Madjedbebe are significant not merely because they establish the earliest such date, but because they extend our knowledge about human migration history and the cultural evolution of Aboriginal society. The findings suggest that people co-existed with megafauna in Australia for more than 20,000 years, challenging earlier suggestions by the scientist Tim Flannery that the arrival of humans led quickly to the extinction of these species.<sup>18</sup> Archaeologists also uncovered ground-edge axes that accompanied the arrival of humans at Madjedbebe 65,000 years ago, which similarly fundamentally shakes our understanding of the story of human social and technological innovation. As Billy Griffiths explains, ‘A tool that was once linked to the origins of agriculture may have been part of the colonising baggage of the first Australians.’<sup>19</sup> At the same time, while these findings are ground-breaking, they are not definitive. In 2018, barely a year after the Madjedbebe findings were published in *Nature*, new archaeological research was released regarding a 120,000-year-old coastal midden site at Moyjil, near Warrnambool in south-western Victoria. Some scientists have cautiously suggested that the site includes a human-made hearth which, if proven accurate, would almost double our estimate for the presence of human ancestors on the Australian continent and challenge many established assumptions about the history of human migration out of Africa.<sup>20</sup> While these suggestions remain cautious and contentious, they demonstrate that our knowledge of pre-colonial Australia – with its diverse and complex communities – is still growing.

Australian archaeologists’ obsession with dating is partly explained by the fact that Australian archaeology began to flourish at the same time that radiocarbon dating was introduced as a ground-breaking technique for dating archaeological sites and artefacts. This coincidence allowed for rapid reassessments pushing the date of human occupation of Australia back to 40,000 years over the course of the 1960s and 1970s.<sup>21</sup> Yet, as Rhys Jones has pointed out, the reliance on this method also posed a problem for Australian archaeologists. Radiocarbon dating has a natural ‘plateau’ at about 50,000 years. Beyond that point, traces of carbon are not detectable. This ‘plateau’ created a stasis in findings that could only be overcome by newer techniques, including the use of luminescence dating, which have allowed archaeologists to find newer dates at places like Madjedbebe.<sup>22</sup>

<sup>18</sup> Clarkson et al., ‘Human occupation of northern Australia’. Human-led extinction of megafauna was most famously proposed by Tim Flannery, *The future eaters: an ecological history of the Australasian lands and peoples* (New York, NY, 1994).

<sup>19</sup> Griffiths, *Deep time Dreaming*, p. 159.

<sup>20</sup> Jim M. Bowler, David M. Pearce, John E. Sherwood, and Stephen P. Carey, ‘The Moyjil site, south-west Victoria, Australia: fire and environment in a 120,000-year coastal midden – nature or people?’, *The Royal Society of Victoria*, 130 (2018), pp. 71–93.

<sup>21</sup> Griffiths, *Deep time Dreaming*, pp. 110–45.

<sup>22</sup> Rhys Jones, ‘Dating the human colonization of Australia: radiocarbon and luminescence revolutions’, *Proceedings of the British Academy*, 99 (1999), pp. 37–65.

Yet the dating of Aboriginal sites has never been a neutral question; the further these dates pushed into the deep past, the more archaeologists began to confront assumptions about the nature of Aboriginal society. Billy Griffiths has adeptly narrated the evolution of Australian archaeology over the course of the twentieth century in his book *Deep time Dreaming*. He notes that many of the archaeological findings in Australia shook the foundational beliefs that scientists had about the primitivity of Australian Aboriginals, often leading to rigid scepticism and disbelief. In particular, the rapidly expanding antiquity of the archaeological record was questioned because it placed Aboriginal people at the ‘cutting edge of Pleistocene technology and challenged the widespread view that Australia was the last continent to be settled by modern humans’.<sup>23</sup> The archaeological record showed Aboriginal society to be dynamic and creative, with a sophisticated set of tools that allowed people to manage the landscape surrounding them.

At the same time, a focus on dating archaeological sites has led to questions about how to interpret change over time within Aboriginal history. This in turn is complicated by the response of many Aboriginal people to the findings of archaeologists. While some find pride in the longevity of the archaeological record – reflected in slogans like ‘You have been here for 200 years, we for 40,000’<sup>24</sup> – others reject it as irrelevant because Aboriginal people have ‘always been here’.<sup>25</sup> Yet both views play into a sense of stasis over time. As Lynette Russell has argued, the term ‘the oldest living culture’ suggests that Aboriginal culture was unchanging and static and conforms to some kind of ‘romantic ideal, for a harmonious society with no outside pressure to change’.<sup>26</sup> While these kinds of statements remain powerful as an expression of Aboriginal identity, Russell is concerned with how they are adopted into a historical framework. She argues that by framing Aboriginal history in this way – focusing only on the longevity of Aboriginal society – we run the risk of adopting a colonialist view that denies the diversity of Aboriginal culture and how it changed over time.<sup>27</sup>

Earlier generations of archaeologists readily found evidence for static cultures that exhibited signs of conservatism and continuity rather than change over time, reflecting dominant views of Aboriginal culture in the mid-twentieth century. More recent generations of archaeologists have been slowly unpicking many of these earlier findings. For example, Griffiths relates the case of the archaeological site at Puntutjarpa in Western Australia, where an early dig by Richard and Betsy Gould in 1969–70 concluded that an Aboriginal community

<sup>23</sup> Griffiths, *Deep time Dreaming*, p. 159.

<sup>24</sup> Jones, ‘Dating the human colonization of Australia’, p. 57.

<sup>25</sup> McGrath, ‘Deep histories in time’, p. 7.

<sup>26</sup> Billy Griffiths and Lynette Russell, ‘What we were told: responses to 65,000 years of Aboriginal history’, *Aboriginal History*, 42 (2018), pp. 31–53, at p. 43; Lynette Russell, *Savaging imaginings: historical and contemporary constructions of Australian Aboriginalities* (Melbourne, 2001).

<sup>27</sup> Griffiths and Russell, ‘What we were told’, pp. 44–5.

emerged 10,000 years ago and adapted to the harsh desert environment through resourcefulness, conservatism, and risk minimization. Recent archaeological studies of the site have instead uncovered 'three distinct phases of occupation over the past 12,000 years, as opposed to a single, static culture'.<sup>28</sup> Similar findings are repeated across different archaeological sites across Australia, emphasizing booming populations in response to changing climatic conditions following the end of the last Ice Age.<sup>29</sup> As Mike Smith demonstrates for Australian desert cultures, booming populations also meant an expanding social world. Groups began to confine themselves to designated areas, developing complex technological and economic tools to reap the benefits of the desert environment. One such technological development was the seed grinder.<sup>30</sup>

An interdisciplinary approach has helped tackle perceptions of stasis. One of the greatest challenges facing historians of pre-colonial Australia is to move past the limitations of the archaeological record in search of a fuller description of social life among Aboriginal communities. For this reason, many historians have looked towards the ethnographic record, particularly historical sources depicting Aboriginal society immediately prior to or following European settlement.<sup>31</sup> Yet, this raises the further problem that Aboriginal history becomes defined narrowly by the world that was witnessed at contact and limited by the worldview of those who were doing the witnessing. Nevertheless, ethnographic records do offer unique insights. Griffiths gives the example of archaeologist Josephine Flood who wrote about the seasonal gathering of bogong moths, in which hundreds of people from multiple different Aboriginal groups gathered in the Snowy Mountains to feast on this rich food source. Flood was only able to locate this tradition through oral histories and ethnographic sources, since the evidence for the practice was largely biodegradable. But this ethnography allowed her to reinterpret the archaeological records in a new light.<sup>32</sup>

Alongside innovative usages of the ethnographic record, scholars have urged archaeologists and historians to engage more fully with Aboriginal ways of relating and knowing history. Incorporating Aboriginal ontologies requires a flexibility that Western academia has sometimes been reluctant to adopt. Diana James issues a challenge to historians to 'lift their eyes from the page and attune their aural senses to other ways of knowing history through song and poetic prose, and the visual performative arts of sand and body painting,

<sup>28</sup> Griffiths, *Deep time Dreaming*, pp. 98–9.

<sup>29</sup> Colin Pardoe, 'Riverine, biological and cultural evolution in southeastern Australia', *Antiquity*, 69 (1995), pp. 696–713; Mike Smith, *The archaeology of Australia's deserts* (Cambridge, 2013).

<sup>30</sup> Smith, *The archaeology of Australia's deserts*, pp. 302–41.

<sup>31</sup> Inga Clendinnen, *Dancing with strangers: the true history of the meeting of the British First Fleet and Aboriginal Australians, 1788* (Edinburgh, 2005).

<sup>32</sup> Griffiths, *Deep time Dreaming*, pp. 237–8; Josephine Flood, *The moth hunters: Aboriginal pre-history of the Australian Alps* (Canberra, 1980).

dance and drama'.<sup>33</sup> Writing about the Anangu peoples of Uluru, she notes that the Anangu concept of history is 'inseparable from their creation ontology', which is written into the landscape of 'rocks, hills, waterholes, plants, animals, people and the law of the Anangu Pitjantjatjara Yankunytjatjara lands'.<sup>34</sup> History is recorded within long memorized song sagas, but is also evident in the environment through 'the subtle signs of the human hand in the clearing of vegetation around sacred sites, stone arrangements, engraved or painted marks on rocks or cave walls'.<sup>35</sup> Similarly, Lynne Kelly describes the methods by which the Yolngu of Arnhem Land pass on cultural knowledge through ceremonial songs, ritual dances, and paintings. Within these varied mediums, the Yolngu have inscribed rich information about plants and animals, the tracks they leave, nests and burrows they build, and how humans can interact with and benefit from them. Different information is detailed according to the seasons, with songs rich with 'colours, smells and sounds of flora and fauna...[and] the seasonal characteristics of an animal or plant, or on natural elements such as clouds, wind strength and direction'.<sup>36</sup> By these means, the Yolngu have encoded an extensive botanical knowledge of thousands of plants and how to harvest them, including sophisticated techniques that transform poisonous plants into vital sources of sustenance.<sup>37</sup> Songs also record place names and the histories of ancestors that occurred in each place. This is often referred to as 'songlines' in English, signifying songs, dances, and paintings which represent journeys across the landscape and act as navigational aids that allow the individual to travel through the land both in reality and in the mind.<sup>38</sup>

Archaeologists have been pushed to take Aboriginal ontologies seriously. Often this has been as a result of Aboriginal critiques of the archaeological profession, most famously represented by Rosalind Langford's 1982 article 'Our heritage – your playground'. Langford reflected a view among many Aboriginal people at the time that archaeologists showed little respect for Aboriginal concerns and, in single-mindedly pursuing academic interests, were continuing a long history of cultural dispossession. Aboriginal people like Langford asserted their right to control and define the terms for sharing their heritage.<sup>39</sup> Elsewhere, Aboriginal elders like Alice Kelly in the Willandra Lakes engaged in a 'rich knowledge exchange' with researchers while also forcing archaeologists to take seriously their concerns around respect for

<sup>33</sup> Diana James, 'Tjukurpa time', in McGrath and Jebb, eds., *Long history, deep time*, p. 35.

<sup>34</sup> *Ibid.*, p. 33.

<sup>35</sup> *Ibid.*, p. 33.

<sup>36</sup> Lynne Kelly, *Knowledge and power in prehistoric societies: orality, memory and the transformation of culture* (Cambridge, 2015), p. 134.

<sup>37</sup> *Ibid.*, p. 135.

<sup>38</sup> *Ibid.*, p. 139.

<sup>39</sup> R. F. Langford, 'Our heritage – your playground', *Australian Archaeology*, 16 (1983), pp. 1–6.



ancestral remains.<sup>40</sup> Many archaeologists working across the world now believe that archaeological approaches need be meaningful and relevant to Indigenous communities.<sup>41</sup> As Ian McNiven writes, ‘This epistemological and ontological quest requires not only understanding Indigenous people’s relationships with, and conceptualizations of, the past, but also how people relate to objects, sites and places in the present in the construction of contemporary identity.’<sup>42</sup> Essential to this is an involvement of Indigenous people as research collaborators, leading to ‘creative and ontologically challenging insights’ that enrich the academic process while also making research more relevant to local communities.<sup>43</sup> Aboriginal scholars like the Ngarrindjeri archaeologist Chris Wilson are extending these principles by developing their own Aboriginal-led archaeological projects that seek to place local Aboriginal interests in their own pasts at the centre of any research agenda.<sup>44</sup>

Part of this process requires valuing oral traditions within research, even those traditions that extend deep into the past. Historian Karen Hughes has noted in her conversations with Aboriginal women how manifestations of deep time ‘frequently coursed through their life narratives and storytelling practice’, which she described as an ‘irruption of Dreaming’.<sup>45</sup> Despite this, Nunn and Reid note that until recently the established academic consensus was that oral histories could not survive longer than 500–800 years, ‘largely because the original information (core) has by then become completely obscured by the layers of narrative embellishment needed to sustain transgenerational interest in a particular story’.<sup>46</sup> Their own research on Aboriginal memories of the end of the last Ice Age refutes these assumptions. Nunn and Reid collected twenty-one oral histories from coastal Aboriginal communities across the full circumference of Australia, arguing that these stories collectively demonstrate historical memory of coastal inundation dating back to between 5,300 and 11,120 BC.<sup>47</sup> They suggest that certain characteristics of Aboriginal culture made this possible, including an insistence on telling stories exactly, cultural rules as to who has authority to tell a story, and the relationship between

<sup>40</sup> Malcolm Allbrook and Ann McGrath, ‘Collaborative histories of the Willandra Lakes: deepening histories and the deep past’, in McGrath and Jebb, eds., *Long history, deep time*, pp. 247–8.

<sup>41</sup> McNiven, ‘Theoretical challenges of Indigenous archaeology’.

<sup>42</sup> McNiven, ‘Ethnoarchaeology, epistemology, ethics’, p. 683.

<sup>43</sup> *Ibid.*, p. 686.

<sup>44</sup> Christopher J. Wilson, ‘Holocene archaeology and Ngarrindjeri Ruwe/Ruwar (land, body, spirit): a critical Indigenous approach to understanding the Lower River Murray, South Australia’ (Ph.D. thesis, Flinders University, 2017).

<sup>45</sup> Karen Hughes, ‘Arnhem Land to Adelaide: deep histories in Aboriginal women’s storytelling and historical practice, “irruptions of Dreaming” across contemporary Australia’, in McGrath and Jebb, eds., *Long history, deep time*, pp. 83–100.

<sup>46</sup> Patrick D. Nunn and Nicholas J. Reid, ‘Aboriginal memories of inundation of the Australian coast dating from more than 7000 years ago’, *Australian Geographer*, 47 (2016), pp. 11–47, at p. 11.

<sup>47</sup> *Ibid.*, p. 38.

Aboriginal people and land which gave these histories elevated cultural significance. Nunn and Reid conclude that these stories ‘may be some of the world’s earliest extant human memories’.<sup>48</sup> Such findings have inspired other archaeologists and scientists to bring Aboriginal Dreaming stories together with Western geological histories to demonstrate convergences between the two knowledge systems.<sup>49</sup>

Similarly, recent research into the biocultural history of Australia has demonstrated the accuracy of Aboriginal oral histories. For example, Maurizio Rossetto et al. have researched the role of ‘human directed dispersal’ in the current geographic spread of the Moreton Bay Chestnut tree. The seeds of this tree were used by Aboriginal people as a staple food source; although the seeds are toxic, Aboriginal communities developed methods to remove the toxins and often ground the seeds into a highly nutritious meal that could be stored. The scientists were impressed by extensive ethnographic records – both historical and contemporary – that suggested the importance of the Moreton Bay Chestnut as a staple food for Aboriginal communities in northern New South Wales. The tree was also used for fish and animal traps, making spear throwers and even for toy boats for children. Importantly, the researchers used Dreaming stories that mapped Aboriginal interaction with the tree which suggested that an ancestral spirit carried seeds of the tree and left them along a songline that followed from the east coast to mountains in the west. Researchers mapped the songline along ridgelines, finding that it corresponded to the modern-day spread of the tree.<sup>50</sup> Research such as this demonstrates that Aboriginal oral histories deserve to be taken seriously, not least because they have the potential to fill gaps in the historical and archaeological record.

## II

Land and environment lie at the heart of Aboriginal culture and history and considerable research has been conducted into just how Aboriginal people managed land. Two recent works in particular have catapulted this research into public attention: *Dark emu* by Bruce Pascoe and *The biggest estate on earth* by Bill Gammage.<sup>51</sup> Both argue that Aboriginal land management involved such a degree of intervention into the environment that it can be described as agriculture – in Pascoe’s framework – or estate management, according to

<sup>48</sup> *Ibid.*, p. 42.

<sup>49</sup> Francesca Robertson, Glen Stasiuk, Noel Nannup, and Stephen D. Hopper, ‘*Ngalak koora koora djinang* (looking back together): a Nyoongar and scientific collaborative history of ancient Nyoongar boodja’, *Australian Aboriginal Studies*, 1 (2016), pp. 40–54.

<sup>50</sup> Maurizio Rossetto et al., ‘From songlines to genomes: prehistoric assisted migration of a rain forest tree by Australian Aboriginal people’, *PLoS One*, 12 (2017), doi: 10.1371/journal.pone.0186663.

<sup>51</sup> Pascoe, *Dark emu*; Bill Gammage, *The biggest estate on earth: how Aborigines made Australia* (Crows Nest, 2011).

Gammage. These conclusions have sparked considerable controversy and debate among historians.

The question of whether Aboriginal people practised agriculture has long been debated. Florin and Carah note that Aboriginal Australians were often compared to their Melanesian counterparts in New Guinea, who were noted for their adoption of horticultural practices. By contrast, Indigenous Australians were deemed 'neolithic' and 'hunter-gatherers'. Beginning in the 1970s, these assumptions and the presumed dichotomy between Australia and New Guinea were broken down by both ethnographic and archaeological research. It has since become less accepted to presuppose that Aboriginal people did not engage in any form of agriculture.<sup>52</sup> The question of agricultural practice has been linked to European notions of 'progress' or 'civilizational advancement' since the nineteenth century. At the same time, Lesley Head has argued that Western idealizations of particular types of human landscapes blinded Europeans to other examples of human environmental intervention, leading many European settlers to depict the Australian landscape as a type of untouched wilderness.<sup>53</sup> These racialized assumptions meant that many Europeans failed to see or respect Aboriginal land management techniques that involved a very sophisticated level of botanical and ecological knowledge which included the cultivation of crops.

In *Dark emu*, Bruce Pascoe intervenes into this debate by presenting a holistic view of the Aboriginal pre-colonial economy based on early colonial ethnographic accounts combined with recent archaeological evidence. He argues that Aboriginal people practised agriculture; that indeed their intervention into local ecologies fundamentally changed plant evolution. Selection of seed for harvest and trade between groups across long distances fundamentally changed the genetic structure of grains in a similar way to the domestication of plants in Africa and Eurasia.<sup>54</sup> 'This process, conducted over long periods of time, is what scientists call domestication.'<sup>55</sup> Aboriginal people manipulated their environment to the advantage of certain plants necessary for subsistence, while also planting and harvesting crops and developing techniques for grinding, baking, and storing supplies in between harvests. Similarly, Aboriginal people practised sophisticated forms of aquaculture, building impressive eel traps and even developing symbiotic relationships with killer whales who

<sup>52</sup> Florin and Carah, 'Moving past the "Neolithic problem"', pp. 46–7. See also Harry Lourandos, 'Intensification: a late Pleistocene-Holocene archaeological sequence from south-western Victoria', *Archaeology in Oceania*, 18 (1983), pp. 81–97; Peter White, 'Revisiting the "Neolithic problem" in Australia', *Records of the Western Australian Museum*, Supplement 79 (2011), pp. 86–92.

<sup>53</sup> Lesley Head, *Second nature: the history and implications of Australia as Aboriginal landscape* (New York, NY, 2000), pp. 7–8.

<sup>54</sup> Pascoe, *Dark emu*, pp. 30, 39. Citing Rupert Gerritsen, *Australia and the origins of agriculture* (London, 2008), pp. 60, 84.

<sup>55</sup> Pascoe, *Dark emu*, p. 43.

assisted with catching fish near Eden, along the southern coast of New South Wales.<sup>56</sup> Far from being itinerant and opportunistic hunter-gatherers, Pascoe notes many Aboriginal people built houses and had their own methods of storage and preservation of staple crops. Pascoe points out that evidence for Aboriginal adoption of baking predates Egyptian baking by almost 15,000 years. The world's oldest grindstones have been found near Walgett in western New South Wales, dating to 30,000 years. Grindstones of similar antiquity have been found in Kakadu in the Northern Territory.<sup>57</sup> For Pascoe, this evidence demonstrates that Aboriginal communities were at the cutting edge of agriculture, even if their agricultural practices do not conform exactly to practices from elsewhere in the world.

In a similar vein, Bill Gammage looks at Aboriginal land management through the lens of fire regimes. Aboriginal use of fire was recognized by early explorers and colonists; however, it did not receive serious academic attention until the mid-twentieth century. In 1969, Rhys Jones coined the term 'fire-stick farming' to describe the way in which Aboriginal people used fire to shape the environment around them.<sup>58</sup> The first full study of this practice, undertaken by Sylvia Hallam, was published in 1975. By studying a long archaeological history of Aboriginal fire use in south-west Western Australia, Hallam argued that Aboriginal people managed the environment through careful and deliberate use of fire. These traditions were recorded within songs, dances, art, and Aboriginal law. Her insights were used by others to deepen their understanding of Aboriginal botanical knowledge and the role that fire played in Australia's unique ecologies.<sup>59</sup> Gammage extends these arguments to a continent-wide view in his book *The biggest estate on earth*, where he argues that the use of fire

<sup>56</sup> *Ibid.*, pp. 68–96. On Aboriginal botanical knowledge, see Tim Denham, Mark Donohue, and Sara Booth, 'Horticultural experimentation in northern Australia reconsidered', *Antiquity*, 83 (2009), pp. 634–48; Beth Gott, 'Murnong – *Microseris scapigera*: a study of a staple food of Victorian Aborigines', *Australian Aboriginal Studies*, 2 (1983), pp. 2–18; Beth Gott, 'Ecology of root use by the Aborigines of southern Australia', *Archaeology in Oceania*, 17 (1991), pp. 59–67; Nelly Zola and Beth Gott, *Koori plants and Koori people: traditional Aboriginal food, fibre and healing plants of Victoria* (Melbourne, 1992); Fred Cahir, Ian D. Clark, and Philip A. Clarke, *Aboriginal biocultural knowledge in south-eastern Australia: perspective of early colonists* (Clayton, 2018). On Aboriginal Aquaculture, see also Martin Gibbs, 'An Aboriginal fish trap on the Swan coastal plain: the Barragup Mungah', *Records of the Western Australian Museum*, Supp. No. 79 (2011), pp. 4–15; Beryl Cruse, Liddy Stewart, and Sue Norman, *Mutton fish: the surviving culture of Aboriginal people and abalone on the south coast of New South Wales* (Canberra, 2005); Ian Walters, 'Some observations on the material culture of Aboriginal fishing in the Moreton Bay area: implications for archaeology', *Queensland Archaeological Research*, 2 (1985), pp. 50–7; Peter Dargin, *Aboriginal fisheries of the Darling–Barwon Rivers* (Brewarrina, 1976); Jeannette Hope and Gary Vines, *Brewarrina Aboriginal fisheries conservation plan* (Marrickville, 1994).

<sup>57</sup> Pascoe, *Dark emu*, p. 30.

<sup>58</sup> Griffiths, *Deep time Dreaming*, pp. 242–3; Rhys Jones, 'Fire-stick farming', *Australian Natural History*, 16 (1969), pp. 224–8.

<sup>59</sup> Griffiths, *Deep time Dreaming*, p. 243; Sylvia Hallam, *Fire and hearth: a study of Aboriginal usage and European usurpation in south-western Australia* (Canberra, 1975). For a discussion of the use of fire by desert communities, see Smith, *The archaeology of Australia's deserts*, pp. 324–5.

by Aboriginal communities had common purposes across the continent, despite diverse environmental conditions.

Gammage argues provocatively that there was not a corner of the Australian continent that was not subjected to deliberate human intervention by Aboriginal communities, who used fire as a farming technique to encourage the growth of particular plants, to control others, and to create traps for hunting kangaroo.<sup>60</sup> Precise botanical knowledge of how plants responded to fire allowed them to use fire very strategically to promote or control different types of plants. This use of fire was by no means uniform and ranged from seasonal burns to burns only once every five, twenty-five, or even several hundred years according to the specific needs of the environment. As a consequence, the ecology of Australia was uniquely shaped by human intervention. As Gammage argues,

Over seventy per cent of Australia's plant species tolerate fire, many need it to seed or germinate, and eucalypts, acacias and spinifex use it to dominate the continent... Dominant perennial grasses re-sprout green after fire, which attracts animals, whereas if you burn Europe's annuals they die. Eucalypts and acacias regenerate, and with the right fire, cycads all fruit at the same time so people could gather and feast.<sup>61</sup>

Significantly, the removal of this form of land management after colonization has led to devastating consequences, including catastrophic bushfires and the loss of life and property.<sup>62</sup>

While the evidence base behind Pascoe's and Gammage's works is broadly supported by the wider research community,<sup>63</sup> historians and archaeologists have balked at their provocative conclusions. Griffiths and Russell argue that Pascoe is 'captivated by the enduring myth of progress' that sets agriculture as a step above other ways of organizing the economy of a society. They ask, 'What is "mere" about a hunter-gatherer way of life?... Is it necessary to turn to Eurocentric language and ideas to acknowledge the richness and complexity of Indigenous economies? Is it meaningful to define "agriculture" as a stable category that transcends space and time?'<sup>64</sup> Instead, they note alternative terms used by scholars to avoid the language of agriculture, such as the term 'intensification' first used by Harry Lourandos in 1987 to describe the evolution of sophisticated forms of food processing, including eel traps and holding ponds developed by Aboriginal communities in south-western Victoria.

<sup>60</sup> Gammage, *The biggest estate on earth*.

<sup>61</sup> Bill Gammage, 'Fire in 1788: the closest ally', *Australian Historical Studies*, 42 (2011), pp. 277–88, at p. 278.

<sup>62</sup> Timothy Neale, Rodney Carter, Trent Nelson, and Mick Bourke, 'Walking together: a decolonising experiment in bushfire management on Dja Dja Wurrung country', *Cultural Geographies*, 26 (2019), pp. 341–59, at pp. 344–5.

<sup>63</sup> Alistair Paterson, 'Once were foragers: the archaeology of agrarian Australia and the fate of Aboriginal land management', *Quaternary International*, 489 (2018), pp. 4–16, at p. 6.

<sup>64</sup> Griffiths and Russell, 'What we were told', p. 41.

Lourandos used this term instead of agriculture, which he believed carried the baggage of European narratives of progress and denied appropriate levels of agency, sophistication, or economic complexity to hunter-gatherer societies.<sup>65</sup>

Much of this critique centres on language and whether the term ‘agriculture’ helps or hinders understanding of the diversity, sophistication, and dynamism of Aboriginal land management practices. Alistair Paterson, following Peter Hiscock, prefers the term ‘foragers’ to ‘agriculturalists’,<sup>66</sup> while Peter Veth et al. argue that the distinction between ‘foragers’ and ‘farmers’ is unhelpful and arbitrary. Instead, they argue that it is more helpful to ‘use material evidence from the past to fully consider the roles of plants in peoples’ economic, social and symbolic lives’.<sup>67</sup> They use evidence from rock art in the Kimberley region to argue that certain plants were highly regarded and formed essential parts of subsistence across tens of thousands of years.<sup>68</sup> Beth Gott has used the terms ‘wild harvesting’ and ‘natural cultivation’ to describe Aboriginal deployments of fire and other methods for not only harvesting but increasing the abundance and productivity of certain plants.<sup>69</sup>

Gammage’s continent-wide approach along with his choice to focus on the year 1788 due to his reliance on ethnohistorical sources has similarly exposed him to considerable criticism for essentializing and flattening the diversity of Aboriginal practices and ‘telescoping’ them into a single point of time. Hallam and others have argued that a more fruitful approach is to look at regional diversity and the specificities of Aboriginal burning techniques. A focus on commonality also denies the reality that some burning techniques could be environmentally destructive by encouraging erosion or altering soil nutrients.<sup>70</sup> Grace Karskens is critical of Gammage’s adoption of nineteenth-century language of ‘estate, Eden, garden, and farm’ which she views as an example of applying the European imagination to Aboriginal land management practices. Like Hallam, she suggests that he has used localized, specific examples to make a sweeping claim about an entire continent and argues that future research should focus on accounting for local specificities.<sup>71</sup>

While academics continue to debate the validity of terms like agriculture and estate management, it is nevertheless true that both Pascoe and Gammage have

<sup>65</sup> *Ibid.*, pp. 41–2; Lourandos, *Continent of hunter-gatherers*.

<sup>66</sup> Paterson, ‘Once were foragers’, p. 9.

<sup>67</sup> Peter Veth, Cecilia Myers, Pauline Heaney, and Sven Ouzman, ‘Plants before farming: the deep history of plant-use and representation in the rock art of Australia’s Kimberley region’, *Quaternary International*, 489 (2018), pp. 26–45, at pp. 27–8.

<sup>68</sup> *Ibid.*, pp. 26–45.

<sup>69</sup> Paterson, ‘Once were foragers’, p. 6; Gott, ‘Ecology of root use’.

<sup>70</sup> Sylvia J. Hallam, ‘The biggest estate on earth: how Aborigines made Australia [review]’, *Australian Aboriginal Studies*, 2 (2011), pp. 123–6; Peter Hiscock, ‘Creators or destroyers? The burning question of human impact in ancient Aboriginal Australia’, *Humanities Australia*, 5 (2014), pp. 40–52.

<sup>71</sup> Grace Karskens, ‘Fire in the forests? Exploring the human-ecological history of Australia’s first frontier’, *Environment and History*, 25 (2019), pp. 391–419.

been enormously successful in popularizing knowledge about pre-colonial Aboriginal land management practices. Their research has been effectively translated into contemporary political and scientific debates. One area where this is evident is within environmental and ecological sciences.<sup>72</sup> This is an example of the success of academic historians in reaching to a wider audience and manifests itself in growing public support for the reintroduction of Aboriginal land management techniques to reduce the risk of catastrophic bushfire. At the same time, appreciation has also grown for other forms of Indigenous land management and biocultural work. Paterson notes that the shift from Aboriginal modes of land management to intensive industrial farming, including introduced flora and fauna, had a significant and deleterious impact on Australia's ecology, seen through 'deforestation, increased erosion, topsoil loss, flooding, soil degradation, increased salinity, water catchment degradation, reduced aquifer levels, degradation of natural springs, reduced water flows and poorer water quality including algal outbreaks and stagnant waters'.<sup>73</sup> Marcia Langton has similarly demonstrated that the introduction of livestock in particular had a dramatic impact on local ecologies, leading to the eradication of plants that both Aboriginal people and Australian fauna relied upon. Botanists contributed directly to this ecological colonization process through their study of indigenous plants for the purposes of selecting grazing crops.<sup>74</sup> A consequence of these debates is that it is now widely understood by sections of the public that the Australian landscape was radically changed by colonization, particularly through the elimination of traditional Aboriginal land management practices that helped to manage a combustible environment while ensuring access to a variety of edible plants and animals.<sup>75</sup>

Environmental scientists and ecologists are increasingly looking towards Aboriginal knowledge to develop responses to environmental changes. For example, Indigenous coastal ranger groups have been important in recording and understanding widespread changes to landscapes such as the Melaleuca dieback. Aboriginal elders are able to provide local environmental history as well as a cultural context for changes to the landscape. In northern Australia, this kind of knowledge is applied to halt saltwater intrusion into coastal environments.<sup>76</sup> Emilie J. Ens et al. note that 'biological diversity is increasingly being

<sup>72</sup> Gammage, *The biggest estate on earth*; Hallam, *Fire and hearth*; Stephen Pyne, *Burning bush: a fire history of Australia* (New York, NY, 1991); Jones, 'Fire-stick farming', pp. 224–8.

<sup>73</sup> Paterson, 'Once were foragers', p. 9.

<sup>74</sup> Marcia Langton, 'Botanists, Aborigines and native plants on the Queensland frontier', in Jean-Cristophe Verstraete and Diane Hafner, eds., *Land and language in Cape York Peninsula and the Gulf country* (Amsterdam, 2016), pp. 221–40.

<sup>75</sup> Griffiths and Russell, 'What we were told', pp. 39–40.

<sup>76</sup> Daniel R. Sloane et al., 'Western and Indigenous knowledge converge to explain *Melaleuca* forest dieback on Aboriginal land in northern Australia', *Marine and Freshwater Research*, 70 (2019), pp. 125–39, at p. 136.

linked to cultural diversity suggesting that combined biocultural resources are integral to the survival of life on Earth'.<sup>77</sup> Such an approach nevertheless requires scientists to be aware of the colonial implications for transferring Indigenous knowledge into scientific settings, at the risk of divorcing it from its Indigenous practitioners. Ens et al. note the continuation of cross-cultural tensions in the application of Indigenous land management even in jointly managed areas – tensions which they attribute to 'the continual privileging of "Western" scientific approaches'.<sup>78</sup> In a similar vein Timothy Neale et al. argue that incorporating Aboriginal people and their biocultural knowledge into land management practices 'is not some straightforward revival of a technical practice. Rather, such collaborations are open-ended social and ecological experiments in decolonising, the results and effects of which cannot be fully known in advance'.<sup>79</sup>

These examples demonstrate the impact that historical research into Australia's deep past has already had on contemporary Australian society. While much of this research has been conducted within a Western academic framework, researchers in this field increasingly accept that their findings will be translated into a politicized public discourse on the impacts of colonization and the future of Aboriginal sovereignty. Uncovering the deep past has also become part of a process of defining the future, as many of these debates around ecological management and climate change reveal. The importance of this for a contemporary Australia still grappling with the colonial legacy cannot be overstated. Pascoe argues that the crucial question is not really 'whether the Aboriginal economy was a hunter-gatherer system or one of burgeoning agriculture' but about how the contemporary Australian nation relates itself to the history of Aboriginal deep past. The labelling of Aboriginal people as hunter-gatherers and the denial of their sophisticated economic systems has 'been used as a political tool to justify dispossession' by suggesting that 'the Indigenous population did not own or use the land'.<sup>80</sup> Although more limited in scope, Gammage's work similarly argues that Aboriginal people developed unprecedented knowledge of country, knowing every rock and tree intimately in their efforts to manage and shape the land effectively. He calls this nothing short of extraordinary: 'Australia was not natural, but made. This was the greatest achievement in our history'.<sup>81</sup>

<sup>77</sup> Emilie J. Ens et al., 'Indigenous biocultural knowledge in ecosystem science and management: review and insight from Australia', *Biological Conservation*, 181 (2015), pp. 133–49, at p. 134.

<sup>78</sup> *Ibid.*, pp. 134–5.

<sup>79</sup> Neale, Carter, Nelson, and Bourke, 'Walking together', p. 344.

<sup>80</sup> Pascoe, *Dark emu*, p. 183.

<sup>81</sup> Gammage, 'Fire in 1788', p. 278.



## III

The debate over the emergence of agriculture within Aboriginal societies is linked to arguments over how isolated Australia was from the rest of the world. The assumption of isolation—long taken for granted—has recently been challenged particularly by archaeologists and historians working in northern Australia and the Torres Strait. Over the last thousand years, contact between northern Australia and maritime Southeast Asia intensified. The most well-known example is the Macassan trepang trade that boomed along the coasts of Arnhem Land in the late eighteenth century.<sup>82</sup> These voyages were directed by Macassans and involved Macassan and Bugis crews who sailed aboard wooden sailing ships known as praus, beginning with the north-west monsoon in December each year. They came in search of trepang, or sea cucumber—which, by the eighteenth century, was a prized commodity in China—but also traded with Aboriginal people for pearl shells, beeswax, and ironwood.<sup>83</sup> They would return to Makassar when the trade winds changed in March or April. The voyage to the Kimberley region was known as Kayu Jawa, while that to Arnhem Land was known as Marege'.<sup>84</sup> Regina Ganter argues that this 'history of mobility interrupts the assumptions of indigenous people as fixed and local that have been so central to colonial discourses of indigeneity'.<sup>85</sup> Work by historians in this field thus challenges the long-held belief that Aboriginal culture remained isolated and was essentially conservative by nature. At the same time, questions surrounding the origins, scope, and extent of cultural contact and exchange, particularly among northern Australian communities, once again reveals methodological tensions between historians, archaeologists, and anthropologists.

Among archaeologists, Ian McNiven argues that the Macassan trade is just one example of a long history of a globalized Aboriginal Australia, which is

<sup>82</sup> This field is dominated by the work of Campbell Macknight, who was the first archaeologist to explore in detail Macassan trepanging sites in Arnhem Land. See C. C. Macknight, 'Macassans and Aborigines', *Oceania*, 42 (1972), pp. 283–321; C. C. Macknight, *Voyage to Marege': Macassan trepangers in northern Australia* (Carlton, 1976); C. C. Macknight, 'Macassans and the Aboriginal past', *Archaeology in Oceania*, 21 (1986), pp. 69–75. Campbell Macknight, 'Harvesting the memory: open beaches in Makassar and Arnhem Land', in Peter Veth, Peter Sutton, and Margo Neale, eds., *Strangers on the shore: early coastal contacts in Australia* (Canberra, 2008), pp. 133–47; Campbell Macknight, 'The view from Marege': Australian knowledge of Makassar and the impact of the trepang industry across two centuries', *Aboriginal History*, 35 (2011), pp. 121–43.

<sup>83</sup> Marshall Clark and Sally K. May, 'Understanding the Macassans: a regional approach', in Marshall Clark and Sally K. May, eds., *Macassan history and heritage: journeys, encounters and influences* (Canberra, 2013), p. 2.

<sup>84</sup> The majority of research on the trepang trade centres on Arnhem Land; however, the trade also took place with Aboriginal communities in the Kimberley. See M. J. Morwood and D. R. Hobbs, 'The Asian connection: preliminary report on Indonesian trepang sites on the Kimberley coast, N. W. Australia', *Archaeology in Oceania*, 32 (1997), pp. 197–206.

<sup>85</sup> Regina Ganter, 'Reconnecting with South-East Asia', in Rachel Standfield, ed., *Indigenous mobilities: across and beyond the Antipodes* (Canberra, 2018), p. 255.

defined by cultural contact and diffusion especially via the Torres Strait.<sup>86</sup> He points to the appearance of dogs on the continent 4,000 years ago, the spread of the use of the Melanesian outrigger canoe along Australian coasts 3,300 years ago, and the trade in turtle shells 500 years ago.<sup>87</sup> The archaeological record suggests that Torres Strait islander society changed dramatically approximately 2,600 years ago as a result of the influx of migrants from Papua New Guinea. Evidence of Lapita culture links the Torres Strait to broader developments in the migratory spread of Pacific cultures around that period.<sup>88</sup> Indigenous communities traded goods such as spears, ochre, and pearl and turtle shells and received in exchange canoes, drums, weapons, and other prestige items. Other research has suggested that cultural diffusion can be witnessed through the style of Torres Strait rock art, which demonstrates motifs and design elements from both mainland Australia and Papua New Guinea.<sup>89</sup> At the same time, new evidence is emerging to suggest that the Torres Strait remained connected to the expanding trading entrepôts such as the Maluku sultanates active in Maritime Southeast Asia in the sixteenth and seventeenth centuries. Torres Strait languages incorporate many Malay loan words, indicating that the cultural interaction was considerable.<sup>90</sup> Peter Grave and Ian McNiven have discovered pottery sherds of Chinese origin in the Torres Strait and suggest that it is possible that Chinese traders made rare trips to the Torres Strait in the sixteenth century.<sup>91</sup>

Although the Torres Strait offers exciting new perspectives on cultural contact between Aboriginal and Asian communities, the majority of research in this field has focused on the Macassan trade, 800 kilometres to the west. In part, this is because the presence of Macassans in northern Australia has left an indelible mark on Aboriginal communities like the Yolngu.<sup>92</sup> Yolngu public dances and ceremonies incorporate many symbols imported by the Macassans, including ‘flags, samurai swords, long-barrelled pipes, prayer calls to Allah and references to South-East Asian ports like Djakapura (Singapore),

<sup>86</sup> Ian J. McNiven, ‘Edges of worlds: Torres Strait islander peripheral participation in ancient globalizations’, in T. Hodos, ed., *The Routledge handbook of globalization and archaeology* (New York, NY, 2017), pp. 319–34. See also Michael J. Rowland, ‘65,000 years of isolation in Aboriginal Australia or continuity and external contacts? An assessment of the evidence with an emphasis on the Queensland coast’, *Journal of the Anthropological Society of South Australia*, 42 (2018), pp. 211–40.

<sup>87</sup> McNiven, ‘Edges of worlds’, p. 319; Rowland, ‘65,000 years of isolation’, pp. 224–5.

<sup>88</sup> McNiven, ‘Edges of worlds’, p. 326.

<sup>89</sup> Rowland, ‘65,000 years of isolation’, pp. 223–4.

<sup>90</sup> McNiven, ‘Edges of worlds’, pp. 327–8; Peter Grave and Ian J. McNiven, ‘Geochemical provenience of 16th–19th century C.E. Asian ceramics from Torres Strait, northeast Australia’, *Journal of Archaeological Science*, 40 (2013), pp. 4538–51; Pamela Swadling, *Plumes from paradise: trade cycles in outer Southeast Asia and their impact on New Guinea and nearby islands until 1920* (Sydney, 2019), p. 159.

<sup>91</sup> Grave and McNiven, ‘Geochemical provenience’, pp. 4538–51.

<sup>92</sup> Regina Ganter, ‘Turning the map upside down’, *History Compass*, 4 (2006), pp. 26–35, at p. 28.

Djumaynga (Macassar) and Banda'. The strength of this connection is apparent within Yolngu traditions even after nearly a century since the voyages ceased. The Yolngu find a degree of pride within this history of contact with the Malay world, and over recent decades mutual expeditions of rediscovery and exchange have taken place between the Yolngu and Macassans.<sup>93</sup>

While the impact of this trade on Aboriginal communities is clear, historians continue to disagree on when this cultural contact began and how long it continued. The historical, archaeological, and ethnographic records all provide conflicting evidence. The pre-eminent scholar of the field, Campbell Macknight, initially dated the origins of the trade to between 1650 and 1750, but later revised this estimate forwards to the 1780s.<sup>94</sup> Macknight believes this latter date best reflects the point at which the trade was properly established, based on Gerrit Knaap and Heather Sutherland's research with eighteenth-century Dutch records relating to the trepang trade.<sup>95</sup> Macknight argues that since trepang was always a trade commodity, its appearance or absence within trade records gives an indication of when the trade began. Trepang is completely absent from Portuguese, Dutch, or English records prior to the 1780s, while British records suggest that the trepang industry accelerated in intensity at the beginning of the nineteenth century.<sup>96</sup> Several archaeologists have disputed these conclusions, with radiocarbon dating of fireplaces used by the trepangers returning dates ranging from 1170 to 1520, while other evidence suggests even older dates are possible.<sup>97</sup> Recent archaeological work done on rock art paintings relating to the trade date the artworks to between 1517 and 1664, while the discovery of two skeletons of Southeast Asian origin dated the death of these individuals to before 1730.<sup>98</sup>

<sup>93</sup> Ganter, 'Reconnecting with South-East Asia', pp. 255–80.

<sup>94</sup> Macknight, 'Harvesting the memory', pp. 133–47.

<sup>95</sup> *Ibid.*, p. 136. Macknight, 'The view from Marege', p. 134; Gerrit Knaap and Heather Sutherland, *Monsoon traders: ships, skippers, and commodities in eighteenth-century Makassar* (Leiden, 2004).

<sup>96</sup> Campbell Macknight, 'Studying trepangers', in Clark and May, eds., *Macassan history*, pp. 19–22.

<sup>97</sup> Paul S. C. Taçon, Sally K. May, Stewart J. Fallon, Meg Travers, Daryl Wesley, and Ronald Lamilami, 'A minimum age for early depictions of Southeast Asian praus in the rock art of Arnhem Land, Northern Territory', *Australia Archaeology*, 71 (2010), pp. 7–8; Sandra Bowdler, 'Hunters and traders in northern Australia', in Kathleen D. Morrison and Laura L. Junker, eds., *Forager-traders in South and Southeast Asia: long-term histories* (Cambridge, 2002), p. 169; Macknight believes that the radiocarbon dates that he himself initially established were erroneous. See Clark and May, 'Understanding the Macassans', pp. 2–3.

<sup>98</sup> Taçon, May, Fallon, Travers, Wesley, and Lamilami, 'A minimum age', pp. 1–10; Paul S. C. Taçon and Sally K. May, 'Rock art evidence for Macassan–Aboriginal contact in north-western Arnhem Land', in Clark and May, eds., *Macassan history*, pp. 127–8; Clark and May, 'Understanding the Macassans', p. 3; Sally K. May, Paul S. C. Taçon, Alistair Paterson, and Meg Travers, 'The world from Malarrak: depictions of South-East Asian and European subjects in rock art from the Wellington Range, Australia', *Australian Aboriginal Studies*, 1 (2013), pp. 45–56, at pp. 46–7.

While the debate over the timing of the trepang trade may seem largely innocuous, it in fact reveals a divide over the weight that certain scholars grant to evidence drawn from Aboriginal oral and material culture – including rock art – by comparison to European- or Asian-derived sources. Whereas Macknight views the written archive as definitive, other scholars point to anthropological evidence for pre-Macassan visitors to Arnhem Land. Known as the Bayini, these people appear within Aboriginal oral histories as a ‘copper-coloured’ people who arrived in Australia prior to the Macassan period of contact.<sup>99</sup> The descriptions of the Bayini provided to the anthropologists Ronald and Catherine Berndt in the 1950s suggests that they were considerably different to the later Macassan traders, having settled in Arnhem Land, bringing women with them, constructing houses, cultivating crops, and weaving cloth. Aboriginal songs record these activities, while Aboriginal people provided the Berndts with detailed topographic maps relating to the settlements of the Bayini. Some scholars have hypothesized that the Bayini may have been the Sama Bajau, who were itinerant maritime communities active in Maritime Southeast Asia in the early modern period. The Sama Bajau were an essential component to the extensive trading networks that existed across the region, and scholars like Sandra Bowdler believe that it is unlikely that these skilled and mobile trading mariners never ventured further south beyond the Indonesian archipelago.<sup>100</sup> Despite this, Macknight remains dismissive of these stories, arguing instead that they demonstrate a level of confusion that has entered into the oral record over time.<sup>101</sup>

The anthropologist Ian McIntosh suggests that present-day Aboriginal attitudes towards the Bayini sheds light on past interactions between Aboriginal people and Southeast Asian visitors. Working in particular with Dholtji elder Burrumurra, McIntosh notes that many Yolngu stories relating to the Bayini idealized a pre-Macassan age as characterized by ‘equality and reciprocity, the sharing of resources and knowledge, and joint participation in sacred ceremonies honouring the land’.<sup>102</sup> At the same time, oral history contains evidence that the later Macassan trade was at times accompanied with violence and wreaked havoc on a number of Aboriginal communities. The introduction of diseases such as smallpox into communities likely wiped out a number of groups. McIntosh argues that Aboriginal communities in Arnhem Land were

<sup>99</sup> Macknight, ‘The view from Marege’, p. 130.

<sup>100</sup> Bowdler, ‘Hunters and traders’, p. 183.

<sup>101</sup> As Macknight argued in 1972: ‘It is my opinion that the Baiini myths are totally derived from Aboriginal experience in South Celebes and possibly other areas, obtained during visits with the Macassans. The remarkable associations with particular sites are the product of complicated transference mechanisms, while the temporal element is a more or less inevitable rationalization.’ Macknight, ‘Macassans and Aborigines’, p. 313. He repeated this opinion in 2008 and 2011. See Macknight, ‘Harvesting the memory’, p. 144; Macknight, ‘The view from Marege’, p. 136.

<sup>102</sup> Ian S. McIntosh, ‘Pre-Macassans at Dholtji? Exploring one of north-east Arnhem Land’s great conundrums’, in Veth, Sutton, and Neale, eds., *Strangers on the shore*, p. 166.

able to confront these tragedies through ‘extensive cultural borrowings and innovations in the Dreamings’.<sup>103</sup> He suggests that the disjunction between the Bayini legends and the memory of the Macassan trepang trade probably signifies a substantial shift that occurred in the relationships between Aboriginal people and Southeast Asian visitors, which generated a view of an earlier interaction as a golden age of prosperity and peaceful cultural exchange.<sup>104</sup>

While historians continue to disagree on how to use and interpret Aboriginal oral histories, new research based on Aboriginal rock art provides a fresh perspective on this debate. Sally K. May et al. point to rock art as a way of understanding the impact of the Macassan trade on the material culture of Aboriginal communities. For instance, the prau painting at Malarrak in Arnhem Land shows an in depth knowledge by the artist of Macassan ships and how they sailed.<sup>105</sup> They also argue that the rock art of the Wellington Range demonstrated ‘a significant shift [that] occurred to take advantage of the new economy and restructured Indigenous land-use that strengthened traditional practices but also created new social capital’. This shift took place alongside the emergence of the trepang trade.<sup>106</sup> The Macassan trade encouraged Indigenous groups to restrict their mobility, occupying fewer sites over the course of the year. May et al. argue that this allowed them to control Macassan corridors of movement while also facilitating trade with other groups and controlling the introduction of new technologies and the flow of goods. The new technologies helped them to develop patterns of subsistence that allowed them to occupy sites for longer periods of time. The researchers believe that these changes took place rapidly.<sup>107</sup> At the same time, the results of this research with rock art has pushed Paul S. C. Taçon et al. towards accepting the ethnographic evidence that suggest the Bayini were Southeast Asians that came to Arnhem Land prior to the expansion of the Macassan trade. As they note,

Ironically, archaeological excavation evidence has long pointed to this contact occurring prior to the 1700s but has generally been dismissed due to contradiction with the historical records. This reliance on historical records is unusual given that one of the strengths of archaeology is the ability to add to or contradict historical records, which are often flawed, biased, selective and missing in detail.<sup>108</sup>

<sup>103</sup> Ibid., pp. 165–6.

<sup>104</sup> Ibid., pp. 177–8.

<sup>105</sup> May, Taçon, Paterson, and Travers, ‘The world from Malarrak’, pp. 51–2.

<sup>106</sup> Sally K. May, Paul S. C. Taçon, Daryl Wesley, and Meg Travers, ‘Painting history: Indigenous observations and depictions of the “other” in northwestern Arnhem Land, Australia’, *Australian Archaeology*, (2010), p. 64.

<sup>107</sup> Ibid., p. 64.

<sup>108</sup> Taçon, May, Fallon, Travers, Wesley, and Lamilami, ‘A minimum age’, p. 8.

Aboriginal traditional landowners like Ronald Lamilami of western Arnhem Land see rock art sites ‘like his people’s history books’ that ‘will help wider Australia understand this shared history and give greater voice to Indigenous perceptions of this important time period’.<sup>109</sup> Paul Taçon and Sally May note that the study of rock art relating to the Macassan trade has as yet received relatively little attention. They suggest that future research may well reveal further contact between Australia and Southeast Asia, enlivening our understanding of a connected Aboriginal Australia not just in the past five hundred years but across several millennia:

Indeed, there is evidence in the form of ancient stencilled objects in various parts of Arnhem Land, including the Wellington Range, that are unlike any forms of material culture known from Australian Indigenous ethnographic records. Once they are better dated and interpreted, and further genetic research highlights other forms of ancient cross-cultural encounter, a whole new picture of Aboriginal Australian contact with Asia will finally refute the long-held theory that Aboriginal Australians were isolated from the rest of the world until just a few hundred years ago.<sup>110</sup>

#### IV

The study of Australia’s deep past continues to push the boundaries of knowledge of human migration, evolutionary history, and non-European cultures and societies. It challenges historians to expand their disciplinary horizons and, most importantly, to place Aboriginal people at the heart of this story. Griffiths argues that one of the consequences of delving into the deep past of Australia’s history is that ‘the Australian nation quickly becomes a shallow stratum in a richly layered Indigenous place’.<sup>111</sup> This is why the history of ancient Aboriginal Australia is so confronting to some Australians that are wedded to a nation-state founded on principles of European superiority. Yet, Australia’s deep past reveals an Australian landscape shaped by culture. Recognizing the complexity and sophistication of Aboriginal cultures, economies, and forms of knowledge inevitably confronts the legacy of colonization.<sup>112</sup>

Australia’s deep past has given Aboriginal campaigners space to emphasize their pride in a long, dynamic, and unique history rather than focusing only on the trauma that has accompanied centuries of dispossession and genocide. Aboriginal representatives like Bruce Pascoe and Wayne Nannup argue that this offers a new future for reconciliation in Australia,<sup>113</sup> while Aboriginal

<sup>109</sup> May, Taçon, Wesley, and Travers, ‘Painting history’, p. 64.

<sup>110</sup> Taçon and May, ‘Rock art evidence’, p. 136.

<sup>111</sup> Griffiths, *Deep time Dreaming*, p. 293.

<sup>112</sup> *Ibid.*, pp. 295–6.

<sup>113</sup> Pascoe, *Dark emu*; Robertson, Stasiuk, Nannup, and Hopper, ‘*Ngalak koora koora djinang* (looking back together)’, p. 51.

climate activists like Philip Winzer argue it is only Aboriginal custodians of the land that can protect the fragile Australian environment from impending climate catastrophe.<sup>114</sup> The recent unprecedented bushfire season that saw more than 12.6 million hectares of land burnt across the Australian continent has only amplified this conversation.<sup>115</sup> As one historian of Aboriginal fire regimes has provocatively argued, the Anthropocene is quickly giving way to the Pyrocene: our earth is literally on fire.<sup>116</sup> Within this context, Aboriginal land management practices have received heightened attention, reflecting the infiltration into popular discourse of a growing academic consensus that settler-colonial modes of agricultural and ecological management have failed in the unique Australian environment, leading to catastrophic consequences in the course of just a few generations.<sup>117</sup> Never before has the history of Australia's deep past been so relevant and urgent to the present – a fact that invites Australians to confront the social, political, and ecological legacy of colonization. As Pascoe argues, reconciliation is not just a matter of saying sorry for past wrongs, but also learning to say thanks: to recognize what is extraordinary, innovative, and vital in Aboriginal economic, social, and cultural histories that radically shaped the Australian landscape over millennia.<sup>118</sup>

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<sup>114</sup> Philip Winzer, 'We need a Blak New Deal to fight the climate crisis', *Overland*, 19 Sep. 2019, <https://overland.org.au/2019/09/we-need-a-blak-new-deal-to-fight-the-climate-crisis/> (accessed 28 Oct. 2019).

<sup>115</sup> Tom Griffiths, 'Season of reckoning', *Australian Book Review*, 419, Mar. 2020, [www.australianbookreview.com.au/abr-online/current-issue/758-commentary/6243-season-of-reckoning-by-tom-griffiths](http://www.australianbookreview.com.au/abr-online/current-issue/758-commentary/6243-season-of-reckoning-by-tom-griffiths) (accessed 29 Apr. 2020).

<sup>116</sup> Stephen J. Pyne, 'The planet is burning', *Aeon*, 20 Nov. 2019, <https://aeon.co/essays/the-planet-is-burning-around-us-is-it-time-to-declare-the-pyrocene> (accessed 29 Apr. 2020).

<sup>117</sup> See for example Joe Morrison, 'How first Australians' ancient knowledge can help us survive the bushfires of the future', *Guardian*, 11 Jan. 2020, [www.theguardian.com/commentis-free/2020/jan/11/how-first-australians-ancient-knowledge-can-help-us-survive-the-bushfires-of-the-future](http://www.theguardian.com/commentis-free/2020/jan/11/how-first-australians-ancient-knowledge-can-help-us-survive-the-bushfires-of-the-future) (accessed 29 Apr. 2020); Jack Pascoe, 'Our first peoples already have a blueprint to remake the fire-ravaged land, it's in our country's bones', *Guardian*, 21 Jan. 2020, [www.theguardian.com/commentisfree/2020/jan/21/our-first-peoples-already-have-a-blueprint-to-remake-the-fire-ravaged-land-its-in-our-countrys-bones](http://www.theguardian.com/commentisfree/2020/jan/21/our-first-peoples-already-have-a-blueprint-to-remake-the-fire-ravaged-land-its-in-our-countrys-bones) (accessed 29 Apr. 2020).

<sup>118</sup> Pascoe, *Dark emu*, pp. 228–9.