RESEARCH PAPER: ASIA/PACIFIC

Everything You’ve Been Told About the History of Australian Archaeology is Wrong!

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This paper challenges the oft-repeated conventional story of the beginning of ‘modern’ Australian archaeology, seen as the era of the professional archaeologist that succeeded an undisciplined phase of indiscriminate collecting of skulls and stone artefacts by ‘amateurs’ who, on the whole, believed that Indigenous Australians had arrived on the continent so recently that any excavation of archaeological sites would be pointless. Cambridge-trained John Mulvaney’s excavations at Fromm’s Landing on the Murray River in South Australia commencing in January 1956 have been seen most recently as marking the decisive break, one between ‘good’, professional and ethical archaeology and the earlier ‘bad’ amateur period of mere antiquarianism, ignoring the concerns of and trampling upon the rights of Indigenous Australians in the spirit of triumphant colonialism. This contrast is inaccurate, overdrawn, and ignores the positive contribution of many earlier conscientious scholars; labelling all of them as ‘amateurs’ confuses rather than enlightens the history of Australian archaeology.

We, as scholars must stand on the shoulders of our predecessors, endeavouring to give to our successors a platform just a bit higher than the one on which we ourselves first stood. We can build on the platform of previous research only if we have taken the trouble to learn about it — Harvey M. Bricker.

The foundation myth of Australian archaeology

The title of this paper may sound a bit extreme; however, it is largely justified when one examines the primary evidence for the history of Australian archaeology compared to the myth of its development promoted by the 1950s’ and 1960s’ generation of academic archaeologists. It is myth unthinkingly repeated by scholars as the standard paradigm for the discipline’s history in Australia today. The myth creates a rupture between the practices of modern ‘professionals’ and past ‘amateurs’ where none in fact existed and ignores a considerable body of earlier archaeological research of a very high standard, work that is now very largely unreferenced and forgotten. It also allows us to disown the more unpleasant aspects of our disciplinary history.

One of Cambridge-trained John Mulvaney’s undoubted achievements was to invent the entire topic of the historiography of Australian archaeology and ideas about the origins of Indigenous Australians (see for instance Mulvaney 1957, 1958, 1959, 1961, 1964a, 1964b, 1966, 1971a, 1971b, and many later papers on the history of archaeology and anthropology). I use the term ‘invent’ advisedly, because as well as seeking to understand and build upon previous archaeological research, he was also establishing an act of distancing his own practice from that of previous generations, an act that was strategic (Moser 1995). He sought to establish the era of the professional archaeologist in contrast to what he typified as an undisciplined phase of indiscriminate collecting of skulls and stone artefacts by ‘amateurs’ who, on the whole, believed that Indigenous Australians had arrived on the continent so recently that any excavation of archaeological sites would be pointless.

Succeeding scholars of the history of the discipline have very largely followed Mulvaney’s lead. For instance, Murray and White wrote:

From 1911 to 1959 archaeology was entirely in the hands of untrained amateurs. Most simply collected artefacts, sincere in the knowledge that Aborigines were an unchanging people with an unchanging technology [...] A few amateurs, notably Norman Tindale and Fred McCarthy at State museums, continued to excavate with some methodological rigour (1981: 256).

There is no doubt that 1961, described by Megaw (1966: 306) as the annum mirabilis and by Mulvaney (1971a: 373) as climactic in Australian prehistoric studies’, or perhaps more inclusively the whole 1960–63 period, was a key moment in the development of Australian archaeology (Allen 2019). But was it the beginning of modern Australian archaeology?

One author often cited for such a view today is Tom Griffiths in his award-winning Hunters and Collectors: The Antiquarian Imagination in Australia (Griffiths 1996a; see also 1996b for a summary). The book was never meant as

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In taking Victorian practice as somehow typical of at least the southern States of Australia (NSW, Victoria and SA), Griffiths is here following Mulvaney's earlier lead. Despite explicitly making the point that by 1957 there had been systematic field survey in NSW and SA (1957: 33), Mulvaney very largely formed his views of the history of archaeology based on his own experience from the late-1940s and 1950s studying and working in Victoria. Had he grown up in the archaeological milieu of Sydney or Adelaide he might have formed a very different view. When citing the period 1960–63 as the birth of modern archaeology in Australia, the intention has generally been to distance university professionals of the 1960s from earlier practices. It established the bona fides of the discipline to government and university administrators as being worthy of institutional support as the university sector expanded following the 1957 Report of the Committee on Australian Universities, known as the ‘Murray Commission Report’ (Murray et al. 1957). It was in that decade that the balance of power in archaeological research shifted decisively from museums to universities. It was promoted as the break between ‘good’, professional and ethical archaeology and the earlier ‘bad’ amateur period of mere antiquarianism that ignored the concerns of and trampled upon the rights of Indigenous Australians in a spirit of triumphant colonialism. This contrast in practice was later restated by Mulvaney over the reburial of the Kow Swamp human remains, to complain that modern archaeologists were being blamed for the sins of previous generations (Mulvaney 1991).

Mulvaney’s excavations at Fromm’s Landing, now Tungawa, on the Murray River in South Australia commencing in January 1956 have been seen more starkly by Billy Griffiths (2017, 2018) as marking the decisive break, constituting ‘the dawn of a new era of research in Australia. It was where the first university-trained archaeologist sank his trowel in Australia’ (2017: 100). Griffiths admits that he is seeking ‘to dissociate the discipline of archaeology from the skulduggery’ of earlier work by opening his recent history of the discipline in this period (2018: 8). Narrowing down the date and the individual constituting the ‘dawn’ of Australian archaeology can also be seen as part of the wider celebration of John Mulvaney as both public intellectual and the grand old man of Australian archaeology and of its history, led by Melbourne-based historians from his alma mater (Bonyhady and Griffiths 1996; Griffiths 1996a). One of his old teachers at Cambridge, J.G.D. Clark, was moved to state that Mulvaney was ‘the virtual founder of modern Australian prehistory’ (1989: 72, cited in Moser 1995: 108).

Debunking the Myth

In contrast, the current paper concentrates on the period from roughly the end of the Great War in 1918 up to 1955 to show that this founding myth of modern Australian archaeology is just that, a myth. I contend that the distinction between ‘professional’ and ‘amateur’ is unhelpful, indeed meaningless in this period, introducing an anachronistic set of judgments and privileging universities over museums as sites of ‘professional’ practice. I will show that there were in fact technically competent and in some cases highly trained specialists working in Australian archaeology well before 1956, detailing the work of some key researchers as illustration, from what is in fact a much larger group. There were coherent research questions being pursued and multidisciplinary programs assembled that are usually seen as being entirely post-1955 phenomena, with issues such as cultural ecology, landscape and climate change being addressed, utilising a range of archaeological science techniques particularly in the area of geoarchaeological investigation of the context of particular key sites. Ingenious arguments were being made for a long history of human settlement on the continent, especially so given the absence of any absolute dating techniques being available before 1950. There were as many voices for a deep-time history in Australia during this period, as there were voices against. Australian archaeology, instead of being an inward-looking scientific backwater, adopted new techniques of investigation with very little appreciable time-lag from their original deployment overseas to their local use. And all of this before January 1956. The rest of the paper seeks to document these points, and to discover the people and practices that have been forgotten by failing to recognise them.

The paper originally started with a different emphasis, however. It was going to be about the often-unrecognised wider links of Australian archaeology and the development of Pacific and Southeast Asian archaeology, with often the same characters appearing as both Pacific and Australian specialists. In the interwar period of the 1920s and 30s in particular, there was a whole trope within Australian archaeology attributing many aspects of Indigenous Australian culture to influences from New Guinea and Island Southeast Asia, and in some cases even further afield (cf. McNiven and Russell 2005). At the same time, developments in Australian archaeology had a reciprocal effect on their regional colleagues, with Dutch scholars such as van der Hoop (cited in McCarthy 1984: 75) and van Heekeren (1957: 92, 94) adopting the Aboriginal terms for artefact types, such as muduk for a bone bipoint found widely on Southeast Asian pre-Neolithic sites and also talking of pirri points there. But as I pursued the parallel developments and connections in the history...
of archaeology between Australia and the wider world, I became impressed by some of the early forms of argument made for the antiquity of human settlement of Australia almost from the beginnings of archaeological research on the continent and began to question the conventional history we have all been told.

The works consulted did not fit at all with what histories of Australian archaeology were emphasising as a clear break occurring with the start of Mulvaney's excavations at Tungawa ('The modern era of archaeological investigation began on Friday 13 January 1956'—Griffiths 2017: 106), nor with the *annus mirabilis* of 1961. Mulvaney was seen as Australia's first university-trained professional archaeologist and with a very few notable exceptions—and they were very much seen as exceptions—all previous workers in the field were derided as 'amateurs', mere indiscriminate collectors of stone tools, or worse as grave-robbers, albeit admittedly sometimes university-trained, with a particularly racist agenda. They were collectively judged as the worst sort of 'antiquarians' at a time when the field was rapidly professionalising throughout the world.

To be fair, Mulvaney himself did not usually draw such a clear distinction between his own work and that of his immediate elders. However, his own choice of 1930 – the year of publication of the Ngaut Ngaut (Devon Downs) excavation of Hale and Tindale (Hale and Tindale 1930) – as the decisive turning point for the development of Australian archaeology (Mulvaney 1958: 314) is arguably equally problematic (Horton 1981; White and O’Connell 1982: 24). Even that remarkable excavation had worthy antecedents in the previous decade and its research program similarly continued earlier traditions (Horton 1981: 53–54, 64, 65).

‘Professionals’ versus ‘Amateurs’?

No-one, using a strict definition of ‘professional archaeologist’ as someone employed primarily as an archaeologist and trained as such, held an archaeological position in Australia outside of the Classical and Near Eastern field until 1960 when Jack Golson was appointed to a position at The Australian National University (ANU), arriving to start research there in 1961, and Isabel McBryde took up a position at University of New England (UNE) in Armidale, New South Wales (Allen 2019). In this latter case archaeology may have initially been only a secondary responsibility according to the job description. In 1961 recent Institute of Archaeology, London, diploma graduate, Ian Crawford, was appointed to the first dedicated archaeology position at an Australian museum, becoming a curator at the Western Australian Museum in Perth. At the same time further archaeological appointments were made at the University of Sydney of overseas archaeologists Judy Birmingham, Vincent Megaw (both ostensibly in European prehistory), Richard Wright and, soon after, in 1963, Rhys Jones (Bowdler and Clune 2000; Megaw and Jones 2000; Mulvaney 1962). Mulvaney is often described as being a professional archaeologist in 1956, even though his day job was teaching ancient Greek and Roman history at University of Melbourne. He only offered his first (Honours) course on Pacific archaeology in 1957 (in later years with increasing attention to Australia) and he held no dedicated archaeological position until his appointment to The Australian National University (ANU) in 1965. He had been extensively trained in field archaeology during his archaeological degree at Cambridge, participating in fieldwork and excavations in England, Wales, Ireland, Denmark and most notably in Libya for three months on Charles McBurney’s 1952 excavations at the cave of Haua Fteah (Mulvaney 1986: 98–99).

If he is, quite rightly, to be considered as a professional archaeologist in 1956, then surely so too were the so-called exceptions to the antiquarian rule that he recalled (Mulvaney 1986: 98, 100), including Fred McCarthy (1905–1997) and Norman Tindale (1900–1993). Both of them had conducted excavations of a technically competent nature prior to World War II, but their main professional responsibilities were as curators of ethnology in museums in Sydney and Adelaide respectively. Both had relevant degrees: McCarthy had received a Diploma in Anthropology at the University of Sydney with a 1935 thesis on *The material culture of eastern Australia, a study of factors entering into its composition* (Khan 1993: 2; cf. Mulvaney 1993b), and Tindale had a Bachelor of Science degree from Adelaide, including specialist knowledge in entomology (Zilio 2015: 155–156). Both memoirs of their respective careers stress the continuities in archaeology from the 1920s to the 1980s, providing useful alternatives to the received history (Tindale 1982; McCarthy 1984).

The other two names mentioned by Mulvaney as being competent archaeologists were Dermot Casey (1897–1977) and Edmund Gill (1908–1986). At Tungawa (Fromm’s Landing) by far the most-qualified archaeologist and the only person who had held a professional position in archaeology during their career was, in fact, Dermot Casey, ‘then possibly the only FSA in the country’ (Mulvaney 1986: 100), referring to his Fellowship of the Society of Antiquaries of London, the oldest archaeological organisation in the world. Mulvaney’s acknowledgement of him in the main Fromm’s Landing excavation report says it all:

> My indebtedness to Mr. Dermot Casey, M.C., F.S.A., cannot be adequately expressed. In the field he was indispensable as surveyor, photographer and excavator; he was the draughtsman of most plans, sections and figures in this report [...] I was fortunate to have the sympathetic co-operation of the man of whom Sir Mortimer Wheeler remarked, ‘he became one of the most skilful and peripatetic excavators within my knowledge’ (Mulvaney 1960a: 84).

The unreferenced quotation is in fact from Sir Mortimer Wheeler’s autobiography *Still Digging* (1955: 98). In later obituaries for Casey, Mulvaney stated ‘he was so modest, that he refused to lend his name as co-author of publications’ (1978: 26; cf. 1977a: 226). Casey had studied archaeology under Wheeler at the University of London. He had been employed by him on major excavations in England from 1929 into the 1930s, directing the Lydney Castle excavation (Casey 1931), and was subsequently called upon to assist with the seminal field school for South Asian archaeologists that Wheeler ran at Taxila during war-
time in 1944–45 (Wheeler 1955: 99–100, 193, 197). Upon his return to Australia from England, Casey had been given the opportunity to work professionally again, when in 1934 he was offered £500 for two years by Melbourne University to undertake archaeological research, on the recommendation of Professor Frederic Wood-Jones (Melbourne Age, 17 May 1934: 7). Presumably he took up this grant as there are scattered records of excavations and surveys carried out by him in Victoria before the War, which could do with far more research.6 In January 1946 Casey jointly led an expedition to Flinders Island in Bass Strait with Dr Leonard Adam of Melbourne University, investigating Aboriginal occupation. He also took part in the Grimwade Expedition to Western Australia in 1947, thus continuing his pre-War archaeological efforts.7

Part of the underappreciation of Casey’s role in Australian archaeology before and after the War was no doubt because of his own excessive modesty – self-describing as an ‘amateur’ and claiming ‘no academic qualifications as an archaeologist.’8 In addition, Casey had a private income and did not feel he needed fame or official position beyond being an Honorary Ethnologist at the National Museum of Victoria, Melbourne (now Museums Victoria) from 1932 until his death in 1977 (Mulvaney 1977a, 1978). There is no doubt he was Mulvaney’s secret weapon from 1956 onwards, taking part in nearly all of Mulvaney’s archaeological expeditions during that time, writing the chapter on surveying and a joint chapter on stone artefacts for Mulvaney for the first Australian Archaeology: A Guide to Field Techniques (Casey 1972; Casey et al. 1972). He played a leading role in the 1965–66 Green Gully excavations, near the classic Keilor site (Bowler et al. 1967; Casey and Darragh 1970).

Griffiths (1996a: 91) has seriously underestimated the importance of Casey in Victorian and Australian archaeology:

A stalwart companion on many of Mulvaney’s digs was Dermot Casey, whose landrover, equipment, draughtsmanship and photography enhanced their pioneer excavations. Casey was a transitional figure, one of the earliest trained archaeologists in the field (he had worked with Sir Mortimer Wheeler in Britain) but a gentleman amateur in style who published little and mixed well with the cabinet collectors […] He may have helped Mulvaney bridge the gap between amateur and professional.

Casey in fact published more than he is usually credited with, at least 14 significant papers between 1934 and 1973 on Australian and New Guinea archaeology (listed in Mulvaney 1977a: 227–8).

Edmund Gill too deserves more attention in the history of Australian archaeology than he is generally given, and again a key part of his career fell in the pre-1956 period. He was employed as a palaeontologist at the National Museum of Victoria, later becoming its Assistant Director (Bowler 1987; see also Carey 1981 for a listing of his publications). Gill was the first in Australia to take advantage of the new radiocarbon dating method. Because of his efforts, Australian radiocarbon dates for midden sites appeared in only the second published date list by the inventor of radiocarbon dating, Willard Libby, along with the first Pacific date for the Kuliu’ou rockshelter on O‘ahu, Hawaii, sent in by Kenneth Emory (Libby 1951). Gill’s work is enjoying something of a renaissance these days with an entire issue of the Proceedings of the Royal Society of Victoria (Volume 130 of 2018) devoted to discussion of his ideas that shell deposits on a 120,000 year-old shoreline feature at Moyilj, near Warrnambool represent archaeological midden deposits.

**Unsung researchers**

What of other highly competent archaeological workers also employed in related fields, such as the dental anthropologist Thomas Draper Campbell (1893–1967), Dean of the Faculty of Dentistry 1938–1958 at the University of Adelaide or the geologist Paul S. Hossfeld (1895–1967), latterly Senior Lecturer in Geology at the same institution? Campbell’s specifically archaeological publications span the period from 1924 to 1966, the year before his death, and Hossfeld’s from 1926 to 1966, the year before he too passed away. Campbell is only mentioned as one of a general group of ‘collectors’ by Griffiths (1996a: 67, 74), and Hossfeld does not receive a mention.

Campbell (for biography see Brown and Rogers 1993) was a major organiser of the South Australian Board of Anthropological Research, established in 1926, and was inspired by the ideas of the American anthropologist Clark Wissler, utilising an ecological framework (Jones 1987: 78). He published with several of the major archaeological and anthropological figures of the time, including J.B. Cleland, Charles Mountford, H.V.V. Noone (see below), Norman Tindle, Frederic Wood-Jones and Hossfeld.

Hossfeld had a long association with the University of Adelaide, receiving his BSc there in 1924 and his PhD in 1952 when he was already on staff as a casual lecturer in geology. He became Lecturer there in 1954 and Senior Lecturer in 1959, retiring the following year. In the late 1920s and 1930s he had been a Government geologist in New Guinea and then in the Northern Territory. A summary of Hossfeld’s career is provided by Twidale (2012) who mentions his early interest in the Aboriginal archaeology of South Australia (Hossfeld 1926; Mawson and Hossfeld 1926). He continued to publish on Australian archaeology throughout his career. Today, Hossfeld is much better known among Pacific archaeologists, and justifiably celebrated, for his discovery in 1929 of the mid-Holocene Aitape skull on the north coast of New Guinea (Fenner 1941; Hossfeld 1949, 1964) and his later return to the site to collect radiocarbon samples in the 1960s when he was nearly 70 (Hossfeld 1965). His Aitape discovery is regularly re-assessed and re-interpreted (Durband and Creel 2011; Goff et al. 2017; Golitko et al. 2016).

Other prominent geologists were also notable for their contributions to the field prior to the mid-1950s. Geomorphologist Jim Bowler observed that Gill was:
Robert Alexander Keble (1884–1963) was a Melbourne-born geologist and palaeontologist, whose many field surveys allowed him to observe and record archaeological in addition to geological sites of interest (for instance, Keble 1928), as well as collect Aboriginal names for locations on his geological maps. He first started working for the State Department of Mines in 1910, later being appointed palaeontologist at the National Museum of Victoria, before finishing his career in 1948–9 as the Senior Field Geologist of the Department of Mines (Darragh 1996). He remained active in publication until 1954. His abovementioned detailed work on the Keilor terraces (Keble and MacPherson 1946) provided a framework for assessing the age of the Keilor skull and artefacts associated with particular formations. In the absence of direct dating techniques, he also attempted to correlate Pleistocene terrace formations in Australia with those described in Europe. Another article of the same year considered the palaeogeography of Port Philip Bay’s ‘Sunklands’ (Keble 1946). His most direct archaeological contribution, however, was in the form of a paper the following year entitled modestly ‘Notes on Australian Quaternary Climates and Migration.’

The scope of this extraordinary 54-page ‘blockbuster’ is given by its first paragraph which reads:

These notes were made, in the first instance, on climates suggested by the texture and fossils of some Victorian deposits that contained artefacts. But to understand the diversity of climates it was found necessary to investigate the effects of the Postglacial and Pleistocene interglacial and glacial stages in the Southern Hemisphere and this led to their further elaboration. Apart from regulating the march of the climatic belts and its effect on habitability, it became evident that the interglacial and glacial stages were responsible for oscillations in sea-level that modified the geographical distribution of land and sea, particularly in northern Australia. Obviously, these oscillations had a profound bearing on immigration to Australia, but in a somewhat different way to that suggested elsewhere; the changing climate has also influenced migration in Australia (Keble 1947: 28).

The various sections of the paper include ‘Deposits containing artefacts’, ‘Bones shaped by man or animals’, ‘Probable landing places’, ‘Critical millennia’ and ‘Migration routes in Australia’. Detailed consideration is given to the stratigraphy of Ngaut Ngaut (Devon Downs) and Tartanga and particularly to claimed artefacts below volcanic deposits in Victoria, their stratigraphic context and dating. One such site at Bushfield was re-excavated by Keble to clarify the stratigraphy and included geological, zoological, palaeobotanical, palaeontological and mineralogical studies, and dating based on climatic indicators from these as well as discussion of Aboriginal traditions of volcanic activity. Extensive discussion on whether cut marks on megafaunal bones were caused by humans or Thylacoleo then follows, before we are treated to reconstruction maps of the Sahul Shelf at two different stages of the Glacial period prior to the modern sea-level being reached (Keble 1947: 65, 67). The date of creation of the Torres Strait is accurately given as 8000BP (1947: 74) and Keble’s best estimate as to Aboriginal settlement is presented as between 21,000 and 15,000 BP, correlating with very particular climatic conditions allowing movement into Australia and dictating probable migration routes within the continent. The latter became a subject of much interest in more recent times (see for instance Bowdler 1977 on the ‘Coastal Colonization’ hypothesis) but with no mention of Keble’s pioneering work. Darragh’s (1996) entry for Keble in the *Australian Dictionary of Biography* makes no mention of his considerable archaeological contribution.

I will mention only two more archaeologists with particular technical skills who were active in Australia in the 1930s and 1940s, again people largely written out of conventional histories of Australian archaeology: Donald Sutherland Davidson (1900–1952) and Herbert Vander Vord Noone (1880–1955).

Davidson’s absence is particularly surprising in recent histories, as Mulvaney listed him as one of his inspirations, and in 1963 Golson and Mulvaney carried out investigation of Northern Territory sites in areas whose archaeology was first investigated by Davidson (Mulvaney 2011: 122). He had been fully trained in four-field anthropology at the University of Pennsylvania (PhD 1928) and taught there almost continuously from 1924 to 1946. As a professional anthropologist who had previously excavated Native American sites in the United States, he first came to Australia in 1930–1, working in the Northern Territory, returning in 1938–40 to conduct research in Western Australia (McCarthy 1981). The article that particularly inspired John Mulvaney was ‘Archaeological Problems in Northern Australia’ (Davidson 1935), based on excavations and surveys in Wardaman country in the Katherine River and Victoria River districts.

Very sadly, Davidson never published his Australian excavations in any detail, dying at a relatively young age in 1952; this may explain why he has been ignored in most conventional histories. His major publications were on rock art, stone tools and other portable material culture distributions, examined within an ‘age-area’ diffusionist framework. A listing of his publications in Hallowell and Gunther (1954) includes some 35 monographs and academic papers on Australian topics. He was influential on Fred McCarthy’s thought – McCarthy wrote his entry in the *Australian Dictionary of Biography* (1981), co-authored a posthumous paper with him.
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The Aboriginal artefacts, including a wooden... available. This was by no means a unique approach at the work in the absence of any direct dating techniques being participation in Australia using a geological and climatic frame.

He was trying to establish the antiquity of human occupation in Australia using a geological and climatic framework. His research in Victoria has already been discussed, and his "self-effacing modesty, quiet humour and never-failing kindness and generosity" (1958: 13).

If these speculations be accepted, the kitchenmiddens would have accumulated in a period lying between seventeen and five thousand years ago. If we assume that half of this period was required for the development of the mud flats, then the earliest of the kitchen-middens would date back about eleven thousand years (quoted in McCarthy 1943: 166).

McCarthy’s study of ‘Trimmed pebble implements of Kortan type from ancient kitchenmiddens at Clybucca, New South Wales’ is a clear example of the same approach (McCarthy 1943). It builds upon earlier geological reconnaissance by A.H. Voisey, beginning in 1928, that noted Aboriginal middens along a 10-foot emerged shoreline and observed therefore that: ‘The emergence which drove the sea eastwards occurred after the advent of the aborigines’ (Voisey 1934: 94). Voisey’s Figure 1, mapping the extent of raised shoreline along the mid-north coast of NSW, is reproduced by McCarthy (1943: 165) as the starting point of his own discussion. He further quotes Professor Leo A. Cotton of the Department of Geology, University of Sydney, in a personal communication regarding the antiquity of the shell middens based on the physiographic changes noted by Voisey and others:

If these speculations be accepted, the kitchen-middens would have accumulated in a period lying between seventeen and five thousand years ago. If we assume that half of this period was required for the development of the mud flats, then the earliest of the kitchen-middens would date back about eleven thousand years (quoted in McCarthy 1943: 166).

McCarthy notes parallel observations by Tindale and Maegraith (1931) of similar pebble artefacts from a former lake shore at Hawk’s Nest on Kangaroo Island, SA and also seemingly associated with a higher-stand beach at Rainy Creek on the same island. He further cites examples from a land surface covered with estuarine and marine deposits at Fulfam, South Australia (Tindale 1937b: 52–4). The organising framework he was using was artefact typology, driven by parallels seen with Hoabinhian culture artefacts known at the time from the Malay Peninsula and Sumatra that had been examined in Southeast Asian museums by McCarthy in 1937–8. The artefact types were linked to geological observations of higher sea stands to provide a tentative date for cultural changes. This was no different to standard archaeological practice throughout the world at this time, trying to relate particular artefact assemblages to known geological events.

The Fulham site was first reported by S.A. White in 1919. It is notable too that he also published with McCarthy’s great rival, Norman Tindale, and with Campbell (Campbell and Noone 1943a, b). Tindale said of him that ‘Australian students in the field of archaeology gained much from his quiet influence’ (quoted in Oakley 1958: 13). A note in Nature by Cambridge prehistorian Miles Burkitt sums up his Australian contribution: ‘The novel feature is the collaboration [with T.D. Campbell] of Mr H.V.V. Noone, who is an expert in the typology and technology of the older stone-age industries of western Europe, and who therefore ensures that descriptive terms used there shall not be employed to describe something different in the Antipodes’ (1945: 185). After the War’s end he retired again to France and England while continuing to publish on Australian topics (for instance, Noone 1949a). Although barely mentioned today, Noone’s influence continued as long as typological approaches to Australian stone artefacts held sway, well into the final quarter of the twentieth century.

Unsung Research Programs

Keble’s research in Victoria has already been discussed, examining claimed finds of artefacts under volcanic deposits and re-excavating the Bushfield site using a range of archaeological science techniques (Keble 1947). He was trying to establish the antiquity of human occupation in Australia using a geological and climatic framework in the absence of any direct dating techniques being available. This was by no means a unique approach at the time and can be paralleled both in New South Wales and in South Australia.

The Fulham site was first reported by S.A. White in 1919 with further commentary by Walter Howchin, Honorary Professor of Geology at the University of Adelaide (Howchin 1919; White 1919). Aboriginal artefacts had been found in 1893 at a depth of 10 feet while digging to create an artificial lake and a sedimentary log had been kept along with samples from the different layers encountered. The Aboriginal artefacts, including a wooden object thought to be a spear handle or pointed stick, were found below marine and estuarine deposits, identified by Howchin on the basis of their molluscan composition. Although Howchin did not speculate as to an exact age he did note that:

(a) The sand hills in which the aboriginals formed their camp are now below sea level; (b) in the inter-
val separating that time from the present ... the sand hills gave place to a river course, the sediments of which have since developed stalactitic concretions; after which the river stage passed into that of a swamp; then followed an incursion from the sea; and, in more recent times, the area has been covered with mud laid down by the stagnant waters of the Torrens. These successive changes require a considerable length of time for their accomplishment and an undoubted antiquity for the human remains (Howchin 1919: 84).

Tindale instituted a pioneering archaeological hand-corning in the immediate vicinity of the Fulham site in 1933–4 with other members of the recently formed Anthropological Society of South Australia, to a depth of 2–3 metres and extending over an area of more than a kilometre. He also studied and illustrated the Fulham artefacts, adjudging them to represent his Kartan culture in typology and produced a generalised section of the stratigraphy of the Fulham area (Tindale 1937b: 40, 52–4). The same paper contains detailed stratigraphic descriptions of various Kangaroo Island locations, whose suggested dates were again interpreted in a geological framework linked to artefact typology. It ends with a diagram providing a 'Tentative correlation of some implement series in Australia and Tasmania' (1937b: 42, 54, 56).

In an earlier extremely detailed paper on the stratigraphy of caves with megafauna and marine deposits at Tantanoola in South Australia, Tindale had made the approach explicit:

Man must have entered Australia some time during the latter part of the period when the dunes were being formed. The laws of mammalian dispersal suggest that once he had attained the continent he would rapidly (from a geological point of view, almost instantaneously) have spread to all parts of his extended domain. Thus a careful scrutiny of the series of marine beaches from the most recent backward is likely to eventually reveal to us an indication of the period of man’s advent in South Australia, and then enable us to interpret it in terms of physiographic changes. Hence the interest which the general problem may prove to have for the anthropologist (Tindale 1933: 142).

Murray and White (1981: 256) attribute such an approach by Tindale only to 1938 (they mean Tindale 1937b), noting that he ‘advanced the possibility of environmental changes having occurred during the period of Aboriginal occupation – an idea which was only taken up again much later’. However, we have already noted McCarthy’s 1943 paper, and a paper later that same year by Campbell and Noone (1943a) on ‘Some Aboriginal camp sites of the Woakwine Range Region of the South East of South Australia’ contained a discussion of eustasy (‘progressive land uplift and ocean recession’ [1943a: 385]) and noted Cotton’s dating of the Clybucca middens (in McCarthy 1943). It called for similar studies in South Australia, criticising ‘unscientific and unrecorded collecting’ and concluded: ‘Only extensive study, aided we hope by opportunities for excavation will help to clarify such matters’ (1943a: 385, 386). This project continued with additional fieldwork in 1944–45, published the following year as ‘Aborigines of the Lower South-East of South Australia’ (Campbell, Cleland and Hossfeld 1946). This ecologically-focused paper utilised ethnographical information, detailed discussion of available animal and plant foods, analysis of midden contents, required meat weight per person in order to calculate population, and considered soil fertility and geology as ways to assess the age of sites discussed. Superb perspective drawings of sites and stratigraphic exposures and of stone artefacts add to the ‘modern’ appearance of the work, executed by Miss Gwen D. Welch of the South Australian Museum with input from Hossfeld. She also drew the many artefacts illustrated in the earlier Campbell and Noone (1943a) paper. The aims of the later paper are clearly stated on its first page:

The present work was planned to amplify previous investigation into more of an ecological approach; that is by correlating available recorded information of the once living aboriginal with an intensive study of the present day remnants of his material culture and indigenous environment. By this means we can learn something of his reactions and adjustments to his particular geographical circumstances; and, in short, endeavour to reconstruct a picture of his ways of living (1946: 445).

Today, we would call this a cultural ecology approach; it is certainly a long way from the ‘byways of antiquarianism and the haphazard fringes of lunacy’ (Mulvaney 1971b: 229) said to be typical of the pre-1956 period. These pre-1950s research programs—and other examples could have been chosen—also contradict a key aspect of the myth exemplified by the following statement from Griffiths (2017: 107; general references removed):

The methods pioneered at Fromm’s Landing which combined environmental data about river levels with archaeological information, history and ethnography, have become standard research methodology in Australian archaeology [...] It marked the dawn of a new phase of archaeological research in Australia: ‘an approach,’ McConroy wrote (1964: 5) wrote, based on controlled stratigraphic excavation and systematic survey work, rather than random digging and collecting.’

**Archaeological Science: quick uptake of new techniques**

A further way to look at the development of archaeology is to examine the adoption of new archaeological science techniques and practices: scientific dating techniques, thin-sectioning of adzes to determine source, palaeobotanical analysis, and so on. Time-lags in taking on new techniques tell us whether the field in any one place is connected to new developments elsewhere or is provincial, isolated or ill-prepared to embrace change (for a Pacific example see Spriggs 2019). To an extent this topic
has been dealt with above, with archaeologists seen to be taking a close interest in developments in geology and geomorphology relating to eustatic changes in sea level, and correlating terrace and raised beach formations with those in the United States and Europe in an attempt to date those with evidence of human occupation on them. Indeed, much of this work in south east Australia was carried out by or at least driven by the demands of those with a committed archaeological interest such as McCarthy and Tindale.

This methodological framework for examining the dating of Aboriginal occupation was very largely overtaken in the early 1950s by the advent of radiocarbon dating. Again, there is no evidence of any lag in its use by Australian archaeologists. As already noted, the first Australian radiocarbon dates appeared in only the second published date-list by the inventor of the technique (Libby 1951). Ideas for a radiocarbon dating laboratory in Melbourne were first mooted in 1951, and work began in 1954. The laboratory was officially opened in 1961 after protracted development problems that continued until its closure in 1970 (Rae 2018). By then, however, other radiocarbon dating laboratories were in operation in Canberra and Sydney.

In 1927 Lloyd Warner, attempting to date the advent of the Macassans along the Arnhemland Coast cut down tamarind trees, introduced from Southeast Asia, that were associated with sites he was digging, in order to attempt tree-ring dating: ‘Unfortunately, according to competent botanists, it is impossible to date a tamarind tree by its tree rings’ (Warner 1969: 455). Although the attempt was a failure, it should be remembered that the first expedition to pueblo structures in New Mexico to sample for tree-ring dates to be analysed by the pioneer of dendrochronology, A.E. Douglass, had only taken place some 11 years previously, with the first significant publication on the archaeological application of the technique published only in 1921 (Douglass 1921). This represented the first scientific direct dating technique developed in archaeology; it was the paper that was cited by Warner as his inspiration (1969: 444).

Fluorine analysis, a fleetingly popular relative dating technique, was first used archaeologically in the UK on the Galley Hill skeleton from Swanscombe, Kent (Oakley and Montagu 1949), showing it to be intrusive to the layer in which it was found. Oakley had suggested in 1947 that the technique could be used on the infamous Piltdown specimen, and its application showed that Piltdown was a fake (Weiner et al. 1953). In that same year Gill reported on the use of the technique to evaluate the stratigraphic integrity of the Keilor skull, Victoria, adjudged to be in situ (Gill 1953b, 1955). As with his early adoption of radiocarbon dating, Gill was completely up to date with the latest developments.

Australian archaeological geochemistry was particularly precocious, beginning with a comparative oxide composition analysis of two stone axe quarry specimens from Mount William, Victoria and Chatsworth, Queensland by P.G.W. Bayley of the Geological Survey Laboratory in Melbourne in 1914. This was featured in an exhibition catalogue for the Australian meetings of the British Association for the Advancement of Science of that year (Kenyon and Mahony 1914: 14; cited with a reproduction of the relevant page in Richards et al. 2019).

H.H. Thomas, petrographer to the UK Geological Survey between 1911 and 1935 had an early role in characterising stone axes using petrological thin-sections (Thomas in Warren 1919, 1921). The time lag between his pioneering efforts and the earliest archaeological use of the technique in Australia was only about a decade. In 1929 WW. Thorpe, a predecessor of Elsie Bramell and McCarthy as ethnologist at the Australian Museum, commissioned thin sections of exotic, presumed Pacific, stone adzes found on the NSW coast. These were analysed by the Museum’s mineralogist and petrologist T. Hodge-Smith and compared with a New Zealand specimen. Given the lack of available comparative material from the wider region, all that Smith could conclude was that similar basalts were very widely distributed in the Pacific regions’ (quoted in Thorpe 1929: 126).

The anthropologist Bronislaw Malinowski called upon Professor of Geology E.W. Skeats of Melbourne University for petrological examination of eastern New Guinea stone artefacts but no details were published of the study (Malinowski 1934: 190). While none of the specimens listed above were from a local rock source, these examples show Australian knowledge of petrological analysis of archaeological specimens at an equivalent time to their general adoption in the UK (cf. Spriggs 2019: 16–17).

The timely deployment of many other scientific techniques can also be documented. There was early Australian consideration of what is now known as desert or rock varnish with a rough absolute date argued for, based on comparison of such ‘glazed surface film’ from the Egyptian pyramids believed to be dated to 3000BC (Basedow 1914: 199). Consideration was also given to patination of artefacts and whether that could be used as a relative form of dating (for example, Campbell and Noone 1943a). In 1926 the esteemed geologist Sir Douglas Mawson and his student Hossfeld used a *camera lucida* to record rock art in the Olary District of SA (Mawson and Hossfeld 1926), although this was very much 19th century science as an aid to drawing. Palaeobotany was often used in analysing plant remains from dry caves, such as in Tindale and Mountford’s 1934 excavation of Kongarati Cave, SA, where identifications were made by Miss C.M. Eardley (Tindale and Mountford 1936). A zooarchaeological interest in identifying megafauna in supposed association with artefacts or human bones can be traced back to the 1830s in Australia (Minard 2018; Moyal 1975), and faunal identifications were commonly provided by museum zoologists and palaeontologists for archaeological excavations from that time on.

As noted by Spriggs (2019), understanding the timing of availability and use of particular archaeological science practices and techniques expands our ways of organising disciplinary history in a way that allows us ‘to understand what it was possible to know at any particular moment about a region’s past’ (2019: 21). It provides a useful addition to histories based on theoretical ‘schools,’ discussion of professionalisation of the discipline, or dating the
deployment of stratigraphic excavation techniques. Tom Griffiths suggested that ‘Mulvaney was often identified as “the scientist,” bringing objective techniques to a world dominated by conjecture and prejudice’ (in Mulvaney 2011: x). He may indeed have been so identified, but such an identification is, again, merely part of the conventional foundational myth and clearly incorrect.

Discussion
When John Mulvaney began to study the history of archaeology in Australia, his was very much a practical project according to Billy Griffiths (2018: 21), to find sites to dig, preferably in his home state of Victoria. He tended, despite his own occasional protestations, to depict this history very much from a Victorian perspective, and particularly to contrast his own practice to that of the many amateur artefact collectors. Mulvaney’s early research on disciplinary history seemed largely blind to the considerable body of more scientific archaeological research that already existed, not only in the major centres of Adelaide and Sydney, but in Victoria as well. He mentions Tindale and McCarthy, Gill and Casey as exceptions to his strictures on the indiscriminate stone and bone collectors, but largely ignores the contributions many other key figures.

Mulvaney was a young scholar in his late 20s/early 30s in the mid-late 1950s and his research in this field was still developing; for instance, it doesn’t seem that he really understood the geological frameworks within which many scholars were already working. In addition, he had a particular strategic ideological purpose – earlier work had to be deficient to contrast with his own attempts at professionalising the discipline and growing it within the new context provided by the ‘Murray Commission’ report on Australian university education.

In re-reading Mulvaney’s classic early summary of ‘The Stone Age of Australia’ (Mulvaney 1961), what strikes one is the continually negative judgment on earlier work, largely through scepticism of claims made for human associations with Pleistocene contexts and/or radiocarbon dates, even when collected by competent specialists. In fact, he later admitted that the paper ‘may read negatively today’ (1986: 100). Without making such over-zealous contrasts between earlier work and his own, he would not have been able to establish the contrast in practice of which he was seeking to persuade the Academy. Basically, it had to be seen to be there for the distancing he was enacting to be persuasive.16 There is no doubt too that Mulvaney, along with many other archaeologists of the earliest decade or so of radiocarbon dating, saw the technique as having definitively answered any and all previous chronological questions – recall his first paper published on radiocarbon was published only two years after the technique became available to archaeologists (Mulvaney 1952). This faith in the ‘new time machine’ allowed him to completely disregard the considerable investment of earlier researchers in geological methods of dating sites by comparison with eustatic changes and comparisons with European palaeoclimatic/palaeoenvironmental data, as examined above. Later work on the history of Australian archaeology carried out by historians with a very limited understanding of archaeological practice shows they have been content to follow Mulvaney’s early lead somewhat uncritically.

Discussion of past ‘amateurs’ as opposed to modern ‘professionals’ is unhelpful and largely meaningless before the post-WWII expansion of tertiary education. Quite a few earlier researchers either did have degrees in relevant subjects (anthropology, geology, science, etc.) or had years of employment in such areas and a wealth of practical field experience. Both McCarthy and Tindale had enormous experience from their wide-ranging museum work and anthropology and science degrees respectively. Casey, Davidson and Warner, among others, had certainly gained academic experience directly in archaeology, for the latter two as part of 4-field anthropology degrees. Noone had worked closely with some of the most experienced French and American Palaeolithic archaeologists before coming to Australia. And those scholars with a strong academic or on-the-job training in geology and/or palaeontology would have had probably a greater grasp of archaeological issues relating to association and chronology than most ‘professional’ archaeologists of their day. One thinks here of figures such as Gill, Hossfeld and Keble.

Critical discussion of other parts of the foundation myth of Australian archaeology equally deserve treatment but are left out here because of lack of space. Listings of stratigraphic excavations by or derived from Mulvaney (1971b) significantly under-report work prior to his own first excavation, including some which he had already mentioned elsewhere. A corrected list needs compiling. Similarly, the active involvement of Indigenous Australians in the archaeological enterprise since at least the 1830s has been largely ignored or its importance minimised – this subaltern story also needs to be told.17 There were also significant international networks of mentors, colleagues and friends that pre-1950s’ archaeologists participated in; Australia was never isolated from world developments in archaeology as is sometimes claimed. This is further demonstrated by the lack of any significant time-lag in the taking up of new techniques and practices in dating, artefact characterisation, and other scientific developments in the field.

Conclusion
The need for a chronological line in the sand, a break to distance ‘good’ professional archaeologists from the ‘bad’ amateur archaeologists and their skill-collecting proclivities was part of the need to establish archaeology’s bona fides within the Academy and within universities in particular. Mulvaney was not alone in stressing such a break; it was bought into widely by the archaeologists who were the first university teachers and students in dedicated archaeology units in Australia in the 1960s and 1970s and very much remains the ‘official’ view today. It is, however, a modernist fantasy engaged in for perfectly understandable reasons: the need to capture resources at a time when universities were expanding in Australia and thus grab a slice of the (academic) action. But it was done by forgetting the real history of the discipline; something we now need to redress. We require critical histories of
Australian archaeology that examine the entire period from 1788 to the present. We must recognise and own all of Australia’s archaeological history, not just that from the 1950s onwards. It is a single story, bound up very much with Australia’s own, where invasion and dispossession of Indigenous lands have very often been justified by expressions of racial superiority that are themselves underwritten by particular strands of social evolutionary thought (cf. McNiven and Russell 2005). Even starting around 1918, as done here for reasons of brevity, distorts the picture and also tends to obscure ongoing legacies of alienation and dispossession. Claiming that ‘modern’ archaeology started in 1956 or 1960/1961 is completely misleading; if that is the story you have been told then it is indeed the case that everything that you know about the history of Australian is wrong.

Notes

1 HM. Bricker (2007). The quotation is on page 255, referring to ideas that Movius stressed to his students.
2 David Horton (1981, 1991), however, has been a notable exception to the conventional narrative. Norman Tindale (1982) provides a very different perspective from South Australia as do Fred McCarthy (1984) and Hilary Du Cros (1984 1993) for New South Wales.
3 In 1993 Mulvaney wrote that archaeologists ‘have been labelled together with an earlier generation of “diggers” whom archaeologists disown. These were the biological scientists, vainly optimistic and racially biased, who equated non-whites with evolutionary primitiveness, and who promoted eugenics and comparative racial studies, while throughout the first half of this century they removed burials to museums in their hundreds’ (1993a: 122).
4 Mulvaney (1981: 17) notes that Donald Tugby also taught ‘some prehistory’ at University of Queensland in 1960, albeit from within the Psychology Department. Tugby’s career deserves more attention, beginning in Australia sometime between October 1947 and December 1949 when he was hired as Ethnologist at the National Museum of Victoria in Melbourne. He is listed in that position for the first time in the front matter of Memoirs of the National Museum of Victoria, 16, issued December 1949, and left the Museum sometime between May 1953 and 1955 (between Volumes 18 and 19 of the Memoirs). He is noted as having excavated Glenisla 1 rockshelter, now Billimina, and Cave of Hands, now Manja shelter in the Grampians-Gariwerd region of Western Victoria in 1953 when at the Museum but few records have survived (Bird and Frankel 2005: 41–42, 104–105; Bird et al. 1998: 32). He also made an innovative contribution to statistical approaches in archaeology, being probably the first Australian-based researcher to contribute to American Antiquity (Tugby 1958).
5 See Smith (2000) for an appreciation of Tindale’s work at Ngaut Ngaut, McCarthy (1978) for a reflection on the Lapstone Creek excavations, and Nelson (2007) for further details on the 1935–6 excavations there and identification of all those involved. For the original publication see McCarthy (1948).
6 References to this project occur in The Herald, 11 May 1934: 1, The Argus 12 May 1934: 22, The Melbourne Age, 12 May 1934: 18, the aforementioned Melbourne Age article, 17 May 1934: 7 appointing Casey, and a further reference to the start of the project in The Argus, 8 June 1934: 3 (all newspaper references here and in other footnotes retrieved from TROVE – https://trove.nla.gov.au, accessed 10 March 2019). Casey (1937) reports on a visit to Warren, Marthaguy Shire, Vic. in February 1936 to examine the site where a millstone was found buried in a gravel deposit. An excavation by Casey and DJ. Mahony at a reported burial mound at Sunbury sometime after 18 April 1934 is briefly reported (Casey 1956), following on from a visit made before the grant was announced (The Argus, 18 April 1934: 6). Both of these pieces of fieldwork could have been part of the University of Melbourne project. Occurring after its official end was a 1937 visit to an Aboriginal ceremonial ground at Lake Wongan, near Streatham, Vic. (Casey 1938) and Casey’s 1939 test excavation of Sandy Waterholes Cave, Victoria (Mulvaney 1957: 39).
7 For Flinders Island see The Herald, 30 January 1946: 5 and The Melbourne Age, 20 July 1946: 28. His participation in the 1947 Grimwade Expedition is noted in The Argus, 12 February 1955: 40 and 6 October 1956: 11.
8 The self-description and quotation are from Kenneth Joachim, ‘Fossils are fun to him’, The Herald, 11 September 1965: page not recorded on clipping.
9 The modern myth of Australian archaeology suggests that Hale and Tindale’s (1930) excavation at Ngaut Ngaut had very little effect on scholarship in the decades following publication (see Mulvaney 1957: 35); later writers such as McBryde (1964) and Davidson (1983) simply repeat his original claim. Clearly it was not the case with Keble, as seen here, that the site’s significance was ignored, and Mulvaney (1964a) does Mahony (1943) somewhat of a disservice in suggesting that he did not fully appreciate the importance of the site. Joseph Shellshear, Honorary Archaeologist at the Australian Museum, discussed the site, albeit somewhat critically (Shellshear 1937: 173) and it was also referred to by McCarthy (1949: 308–310; McCarthy, Bramell and Noone 1946); in this latter work the stone tool types at the site are extensively referred to. Thus, the site’s significance was known both in Victoria and in NSW. It goes without saying that Hale and Tindale’s work was also discussed in SA (for instance Campbell and Noone 1943b and Noone 1943). Mulvaney’s (1964a) claim that Davidson (1935) was unique in grasping Ngaut Ngaut’s significance is incorrect.
10 When Mulvaney (1960b: 153) claimed his January 1960 excavation at Glen Aire was the ‘first systematic excavation of a stratified site conducted in Victoria’ he failed to take account of Keble’s work, and had forgotten DA. Casey’s 1939 test excavation of Sandy Waterholes Cave, which had revealed a lower artefact-bearing layer sealed by a band of cemented limestone, the notes from which were in Mulvaney’s possession (Mulvaney 1957: 39 and fn. 34). Keble’s
work at Bushfield and Pejark Swamp was followed up by Gill (1953a).

13 I could mention several others, including the well-known Harvard archaeologist, Hallam L. Movius (1907–1987). He visited Australia in 1936 and was involved in excavation of a c. 1819–1836 sealers’ hut at Hawks Bay on Kangaroo Island in the company of Norman Tindale and Nancy Champion de Crespigny, the latter an Australian student of archaeology at Cambridge University whom Movius married later in that year (see Tindale 1937a; for Movius’ career see Bricker 2007). This was probably the first piece of Historical Archaeology undertaken in Australia.

12 Tindale listed Davidson in Philadelphia as one of the people he wanted to visit in his 1935 application to the Carnegie Foundation to travel to the United States and Europe during 1936 (South Australian Museum Archives, Tindale Correspondence 1933–5, AA338/88, letter to President, Carnegie Corporation, 11 April 1935).

11 Tindale (1982: 94) reports that at the time ‘Howchin was the only local researcher who had taken part in archaeological work in Europe. As a young geologist in Newcastle-on-Tyne he had retrieved relics from early wells along the Roman Wall’, i.e. Hadrian’s Wall. Mulvaney (1977b: 265) further notes that he had published too on northern British stone tools before his arrival in Adelaide in 1881 but provides no reference.

10 Mulvaney (1961: 70–71) seriously garbles the account of the Fulham site, suggesting it was excavated only in 1919 and generally disparaging claims of it being a ‘stratigraphic’ study, claiming that his scepticism came from ‘uncontrolled features’ of the recording: ‘The first concerns the discovery of the artefacts, presumably by unskilled navvies, followed only later by Howchin’s arrival and geological reconstruction.’ In fact, the site was dug in 1893 in the presence of SA. White (author of the 1919 paper) who made records of the work, collected the stone artefacts and observed their context. White took sediment samples that Howchin analysed many years later from each layer. Howchin was not present at all during the excavation. The ‘uncontrolled features’ are very largely a chimera. Even the Howchin bibliographic reference is wrong.

15 ‘I have come to the conclusion that the films from the southern hemisphere are quite as thick as those from Egypt, perhaps a little thicker. I would therefore attribute to the Australian designs a very considerable antiquity’ (Basedow 1914: 199–200). The article further suggests that the tracks of extinct megafauna, including Diprotodon and Genyornis, were being represented in the petroglyphs, another indication to Basedow of the existence of such animals (Basedow 1914: 200). He also quotes JW. Gregory’s recording of Aboriginal stories purporting to discuss the former existence of such animals (Basedow 1914: 200).

16 It is notable that his judgment on some earlier work changed between 1961 and 1964. In 1961 he expressed strong scepticism about Keble’s (1947) results from Bushfield: ‘But like all isolated and accidental discoveries, the real antiquity of the object is subject to the qualification that its precise stratigraphic provenance cannot be established. In this instance, the position is complicated further by the doubts attached to the identification of the specimen as an edge-ground type’ (Mulvaney 1961: 95). But in 1964 he noted ‘The initial discovery was accidental, but there seems to be no reason for doubting the authenticity of the discovery’ (Mulvaney 1964b: 430). By 1964 archaeology’s legitimate place within the universities was much more assured.

17 The story might begin with JD. Lang’s observations in a letter labelled ‘Interesting Discovery’ in the Sydney Gazette and NSW Advertiser (Sydney), 25 May 1830, p. 3, that: ‘It is quite evident that the greater number of the bones in question [at Wellington Cave] are not those of animals of the species at present inhabiting this territory. The aborigines are very good authority on this point in the absence of such men such as M. le Baron Ouvier [sic – Cuvier], Professor Jamieson [sic – Robert Jameson], or Professor Buckland, for when shown several of the bones, and asked if they belonged to any of the species at present inhabiting the territory, they uniformly replied, Bail that belongit to kangaroo, Bail that belongit to emu, & &c’ (as quoted in Minard 2018: 94, passage expanded and spelling corrected with reference to http://nla.gov.au/nla.news-article2195206, accessed 13 September 2019). In this context the NSW Pidgin quotation means ‘They are not from a kangaroo, they are not from an emu,’ implying certainty by using the negative ‘bail’; I am grateful for elucidation of this quotation from discussion with linguists Harold Koch and David Nash.

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among others, for very useful comments on the paper at that forum. Finally, in the March 2019 CBAP Annual Conference at ANU a version somewhat wider in scope than presented here was given, with the title ‘It just gets worse! How can they have got the history of Australian archaeology so wrong?’. The current paper was very largely written in the Vila Rose Hotel, Port Vila, Vanuatu during July and August 2019 and revised there in January 2020, and the patience of Rosemary Leona with its production is most appreciated. The comments of the editors and two anonymous reviewers have hopefully helped to sharpen the arguments presented.

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The author has no competing interests to declare.

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