

Robert Edwards and the history of Australian rock art research

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Working in the 1960s, Robert (Bob) Edwards was a key figure in the development of research into Australian rock art. He was one of the first rock art scholars to attempt a quantitative and comparative survey of rock engravings in south and central Australia. In this paper, we examine the development of his work on rock engravings, the intellectual context for his research, and the problems he addressed. Edwards’ research took place during a decade when rock art research became more systematic, analytical and quantitative. Although Edwards’ research on rock engravings was influential, his subsequent career shows a shift from an antiquarian interest in which he regarded rock art as an archaeological relic of an ancient Australia, to a more humanist perspective, where he began to appreciate that many of the sites that he regarded as ancient were part of a living tradition.

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Introduction

Working in the 1960s, Robert (Bob) Edwards ([Fig. 1](#)), dubbed ‘the godfather’ by Lesley Maynard,¹ was one of the first rock art scholars in Australia to attempt a systematic, quantitative and comparative survey of rock engravings in south and central Australia, and the legacy of his pioneering work still animates rock art studies today. His work on rock art was seminal in that it took place during a critical decade in the expansion of field archaeology in Australia,² ensuring that the study of rock art would develop as a strong research domain, paralleling stratigraphic archaeology with its focus on excavations, sequence and chronology. Although Edwards began as an antiquarian, with interests in what he saw as archaeological relics of an ancient Australia, by 1970 he had adopted a more humanist perspective and saw rock art as a living contemporary tradition. Subsequently, through his leadership of the Aboriginal Arts Board, he did much to foster the growth of the Papunya Tula art movement and the striking desert acrylics it produced.

Background: a career in art, museums and heritage

Bob Edwards undertook his rock art research mostly between 1962 and 1973 at the South Australian Museum. He was in his 30s at this time, having been born in 1930, and his rock art research is only a small part of what became a much broader career in ‘cultural diplomacy’, with interests in Aboriginal art that went well beyond pre-historic rock art.³

Edwards—a member of an old Adelaide family—emerged from an amateur local tradition of field naturalists and historians. His association with the South Australian Museum and the Royal Geographical Society of Australasia (South Australian Branch) saw his interests in local history and geography extend into Aboriginal history.⁴ He appears not to have had a tertiary education, and, until 1965, was an orchardist and market-gardener on the Adelaide Plains. Contact with the South Australian Museum led to collaboration with Charles Mountford—then a prominent amateur anthropologist⁵—and to joint fieldtrips to record rock art. In 1963, he also joined archaeological excavations at Fromms Landing on the lower Murray River.⁶

¹ Maynard (1988) p. 30.

² Griffiths (2018).

³ National Portrait Gallery (2018). National Museum of Australia (2011).

⁴ Transcript, Dick Richards, 22 March 2011, ‘Bob Edwards: from orchardist to ethnographer’, Bob Edwards: a tribute, National Museum of Australia, Canberra, ACT.

⁵ Mulvaney (2011) p. 312.

⁶ Griffiths (2018) p. 184. Mulvaney (2011) p. 312.

⁷ Edwards (1964, 1965a, 1965b, 1966a, 1968b, 1971). Mountford and Edwards (1962, 1963, 1964).

⁸ Edwards (1966b).



Fig. 1. Bob Edwards in the field in 1969 during excavation of the engravings at Mt Cameron West in Tasmania. Extract from a photograph by Rhys Jones (AIATSIS, Jones R07.CS 000142596, reproduced with permission).

From 1965 to 1973, he was curator of anthropology at the South Australian Museum, where he was amongst a trio of young curators (along with Graeme Pretty and Bob Ellis) who succeeded Norman Tindale. He had joined the museum with established interests in rock engravings, and from 1965 to 1966 developed his work into a major survey of engraving sites in the Olary region in South Australia, centred on Panaramitee station (Fig. 2). He also extended this work into a wide-ranging survey of rock art sites (both paintings and rock engravings) in the Northern Territory. Between 1962 and 1971, he published nine research papers on rock engravings.⁷ To this work, he also brought an expertise in photography that seems to have been a long-standing interest facilitated by the high-quality photographic equipment that had become available in the late 1950s and early 1960s.⁸ His enthusiasm for photography may have been stimulated by his partnership with Charles Mountford, who was himself a keen exponent of high-quality field photography.

Edwards' involvement with Central Australia began in 1965, the year he received a grant from the then Australian Institute of Aboriginal Studies (AIAS) to photograph and record rock art sites

across the Northern Territory. In this, he had the support of the existing principal of AIAS, Fred McCarthy, who had strong interests in rock art. The following year, in 1966, Edwards was also asked by the institute to film traditional 'increase' ceremonies at the important Warlpiri site of Rugari near Yuendumu, in the Northern Territory. Similarly, in 1967, he was commissioned by the institute to visit Thomas Reservoir in the Cleland Hills, west of Alice Springs, to investigate reports by prospector, Michael Terry, of unusual—possibly non-Aboriginal—rock engravings there.⁹ On this Cleland Hills visit, he recorded the first of a series of engravings of faces (Fig. 3), a type of motif now widely known from the interior.¹⁰

In 1968, Edwards' work was included in an important interdisciplinary seminar series on Aboriginal prehistory held at the Australian National University.¹¹ This was a watershed event. Edwards' inclusion marked the extent to which he had become part of the inner circle in Australian archaeology. It also shows that his work on rock engravings was considered by academic colleagues to be part of a 'modern' approach towards understanding ancient Australia.

To allow his research to develop into a more systematic survey of rock art sites in Central Australia, Edwards convinced a newly established newspaper—*The Australian* (first published in July 1964)—to fund an expedition across the Centre in return for a six-part serialised account of his fieldwork.¹² As a result, he was able to embark on an extensive ten-week journey through Central Australia in 1969.¹³ During this, he travelled north into the Tanami, into the area west of Alice Springs (including a second trip to the Cleland Hills—this time guided by a Kukatja-Luritja man, Timmy Tjukadai) and into the Anangu-Pitjantjatjara-Yankunytjatjara lands (APY lands) across to Blackstone Range. On his second visit to the Cleland Hills, he also made a series of latex casts of the distinctive 'face' designs, after first testing his casting methods at a local quarry in the Alice Springs district.¹⁴

As Edwards' ideas about the antiquity of rock engravings took shape, the possibility that this was an archaic rock art was reinforced by his visit in 1966 to John Mulvaney's excavations at Ingaladdi (Yingalarri), Northern Territory,¹⁵ where Mulvaney had explicitly set out to investigate the antiquity of an engraved frieze on the wall of this rock shelter. Edwards' notion that this was an archaic art form was further strengthened by his involvement with the AIAS excavations in 1969 at the Mt Cameron West engraving site, Tasmania,¹⁶ and his work with rock art doyenne, Lesley Maynard, on ancient wall markings in Koonalda Cave, South Australia, in 1967.¹⁷

After 1969, however, his interests, which were initially antiquarian in nature, began to shift towards a more humanist appreciation of traditional Aboriginal society as well as the formal management of its

⁷ Edwards (1964, 1965a, 1965b, 1966a, 1968b, 1971). Mountford and Edwards (1962, 1963, 1964).

⁸ Edwards (1966b).

⁹ Edwards (1968a, 1968b).

¹⁰ Brady and Carson (2012). Ross and Smith (2009). Smith (2013) pp. 252–253.

¹¹ Mulvaney and Golson (1971).

¹² Edwards (1970).

¹³ Edwards (1970).

¹⁴ Edwards (1968a, 1968b).

¹⁵ Mulvaney (1969), Mulvaney (1975) pp. 184–188.

¹⁶ McCarthy (1969).

¹⁷ Edwards and Maynard (1967).

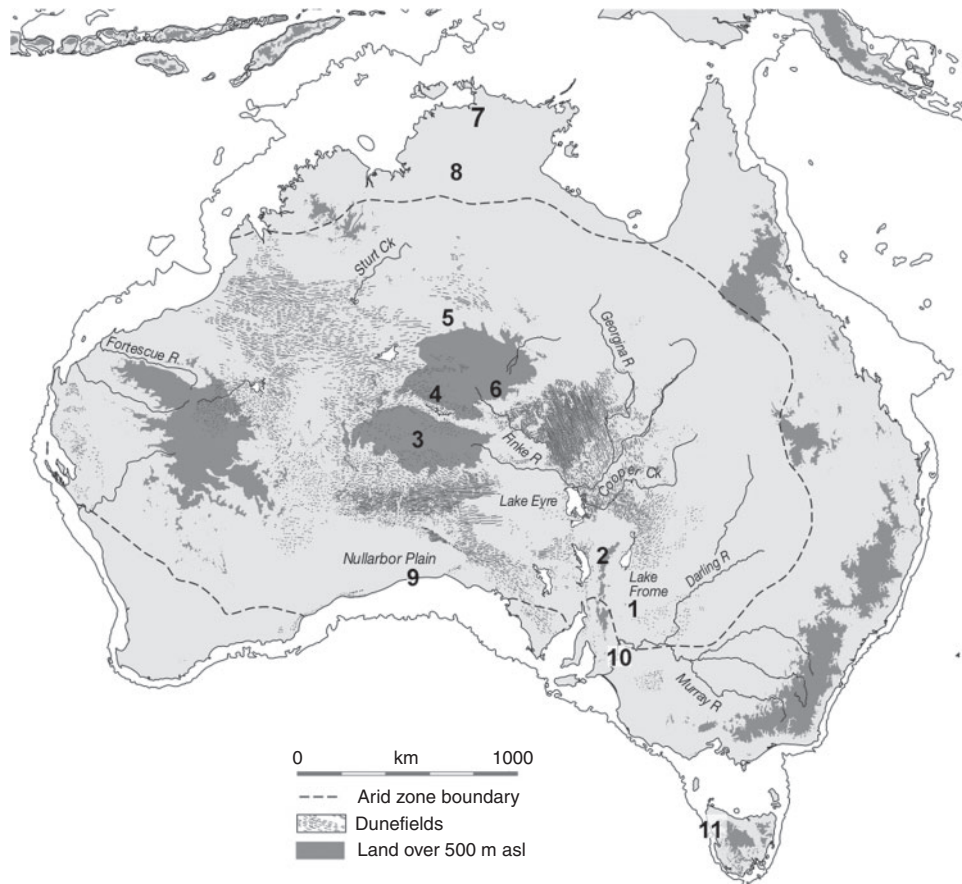


Fig. 2. Location map showing Edwards' key field sites (1: Olary Region including Panaramitee station, 2: Flinders Ranges engraving sites, 3: the Anangu-Pitjantjatjara-Yankunytjatjara lands, 4: Cleland Hills, 5: Yuendumu, 6: Central Australian engraving sites, 7: Kakadu National Park) and archaeological sites that he visited (8: Ingaladdi, 9: Koonalda Cave, 10: Fromms Landing, 11: Mt Cameron West).

cultural heritage. At the South Australian Museum, he drew on his contacts with senior men in the APY lands to develop a keeping place in the basement of the South Australian Museum, where Aboriginal elders could inspect their secret-sacred objects. This was the first time that any museum had done this. His interests in cultural heritage led to his involvement with UNESCO, as well as an ill-fated proposal in 1972 for a site-museum of desert art at a prominent rock painting site at Cave Hill (Walinynga) in the APY lands.¹⁸ Ironically, after initial community concern about public access to Walinynga had sunk this proposal, local Aboriginal people were to operate public tours to this painting site. In 1973, Edwards was commissioned by the Commonwealth to carry out a survey of rock art in western Arnhem Land, as part of the *Alligator Rivers Environmental Fact-Finding Study*, in the lead-up to the establishment of Kakadu National Park.¹⁹ This was effectively the end of his rock art research as his career then shifted substantially towards 'cultural diplomacy', site management and

heritage. From 1973 to 1975, he was deputy principal of AIAS, where he drew up some of the first guidelines for dealing with restricted secret-sacred materials held in institutional collections. During this period, Edwards also became involved in Commonwealth Government enquiries into heritage and museums in Australia. For instance, he was a contributor to the 1974 Hope enquiry that was commissioned by the Whitlam government to investigate the extent and condition of the national estate.²⁰ This report led to the formation of the Australian Heritage Commission in 1975.²¹ He continued this work as one of the authors of a governmental report into the formation of a gallery of Aboriginal Australia, as part of the Pigott Inquiry into museums and national collections.²²

These interests led to a pivotal role as founding director of the Aboriginal Arts Board (Australia Council) from 1975 to 1980. His experience with Aboriginal people in remote Australia, his appreciation of the graphic tradition encapsulated in Central Australian rock

¹⁸ Edwards (1975).

¹⁹ Edwards (1974).

²⁰ Hope (1974).

²¹ Commonwealth of Australia (1975).

²² *Committee of Inquiry on Museums and National Collections* (1975).



Fig. 3. Edwards' photograph of one of the unusual 'face' engravings that he recorded in the Cleland Hills, (NT) in 1967. Scale bar: 15 cm. (Photograph courtesy of Bob Edwards).

art, as well as his growing sense that this was a living tradition, led to his role in fostering development of the Papunya Tula acrylic art movement. He did this by purchasing many of the early works as well as facilitating museum acquisition of a representative collection of these artworks.²³ He also promoted this art to major national and international galleries, where exhibitions of it offered the first opportunity for metropolitan audiences to explore the subtleties and sophistication of desert societies in remote parts of Australia.

He further developed his interests in museums and art in 1980, when he became founding executive director of the International Cultural Corporation of Australia,²⁴ which became Art Exhibitions Australia, a body that brokers major international art exhibitions in Australia and that organises the Commonwealth Government indemnity for loaning high-value cultural treasures. By this time, it is clear that his role in 'cultural diplomacy' had largely superseded his interests in Aboriginal rock art. His work with museums and

exhibitions continued from 1984 to 1990 as first director of the new Museum of Victoria,²⁵ and from 1997 to 2000 as inaugural chair of the board of the National Portrait Gallery, a role that once again brought together his interests in museums, art and photography.

The intellectual context for Edwards' rock art research

Edwards' work on ancient rock engravings constitutes part of a long South Australian tradition extending back to the late nineteenth century. His work took place in the context of long-standing interests in this rock art by scholars based in Adelaide. Much of this early work focused on either the Flinders Ranges or Olary District, as both areas were relatively accessible to metropolitan researchers.

As early as 1883, H. Y. L. Brown, the South Australian government geologist, had been asked to assess rock engravings in the northern Flinders Ranges to determine if they were actually fossil tracks, a notion he quickly dismissed, writing:

On some of the hard blocks of quartzite and quartzose sandstone near this place there are marks somewhat resembling the impressions of the feet of human beings, kangaroo, birds, etc., which are considered to be fossil tracks. On examination they appear to be merely rough imitations of such, the smooth surface of the rock having been removed by some hard instrument to a slight depth, the pitted marks of such action being plainly visible. Besides this, in one case, the plane of the supposed impression is at an angle with the planes of bedding of the rock.²⁶

In 1902, a local policeman, Mounted-Constable Waterhouse, had also sent part of a rock engraving from Manna Hill in the Olary region to the Royal Society of South Australia, in Adelaide, for advice as to whether 'the markings, on it have been done by aborigines' and was advised that 'these were due to the action of certain algae and lichens.'²⁷

Serious scientific work on rock engravings, in these areas, began 1906–14 with Herbert Basedow.²⁸ He initiated interest in the antiquity of rock engravings in the Flinders Ranges, concluding from their patination and desert varnish that they were of 'a very considerable antiquity.'²⁹ Working only a few years after the manus and pes of *Diprotodon* had been described from fossils at nearby Lake Callabonna,³⁰ Basedow had thought he could recognise the tracks of this extinct animal amongst the engravings.³¹ To corroborate the likely antiquity of the engravings, he had corresponded with German scholars working on desert varnish in north Africa and had obtained reference samples of varnished rock of known age (3000 BC) from ancient Egyptian monuments. These, he determined, had a similar thickness of desert varnish to that found on engravings in the Flinders Ranges.³²

Over the next fifty years, South Australian scholars recorded rock engravings and debated not only their antiquity, but whether or not they included representations of extinct megafauna and locally extinct marine species.³³ Although Edwards' own work on rock

²³ Bardon (1979).

²⁴ Commonwealth of Australia (1980).

²⁵ National Museum of Australia (2011). Museums Victoria (2020).

²⁶ Brown (1883) p. 5.

²⁷ Tepper (1902) p. 326.

²⁸ Basedow (1907, 1914).

²⁹ Basedow (1914) p. 200.

³⁰ Stirling and Zeitz (1899).

³¹ Basedow (1907) p. 716–717. Basedow (1914) p. 204, figures 1 and 2.

³² Basedow (1914) pp. 199–200.

³³ Campbell (1925). Hall and others (1951). Hale and Tindale (1925). Mountford (1929, 1960). Pulleine (1926). Tindale (1951).



Fig. 4. Weathered panel of Panaramitee-style rock engravings on Florina station, Olary region, South Australia. This panel shows a range of common motifs, including bird and macropod tracks, and circles. Scale: Small circles are ~15 cm diameter. (Photograph: M. A. Smith).

engravings fell within this tradition, it quickly developed into a more systematic program of research, extending into a comparative analysis of engraving sites.

Research on Panaramitee-style engravings 1962–9

Development of a research program

Edwards' program of work on rock engraving sites began sometime before 1962, under the mentorship of Charles Mountford.³⁴ Their joint approach was largely descriptive and initially focused on questions about the antiquity of the engravings.³⁵ Their principal concern at this time was whether or not the engravings included representations of extinct species. This was essentially a reiteration of earlier arguments.

By 1960, however, Mountford was also aware of widespread similarities in rock engravings, writing that: 'Existing records show that simple rock engravings ... are sporadically but widely distributed over much of eastern Australia, in Queensland, Northern Australia, the north-eastern districts of New South Wales, north-eastern South Australia and in Tasmania.'³⁶ It seems likely that Mountford's views on this influenced the approach that Edwards later took.

Systematic recording of engraving sites in the Yunta area of South Australia stimulated Edwards' interest in motif counts, motif types, and site variability, as well as the predominance of tracks in this art (Fig. 4).³⁷ He observed that: 'The greatest number of engravings we saw depicted the tracks of the creatures ... so numerous and similar in design'.³⁸ From 1964, his research developed into an extensive survey of rock engraving sites in the Olary region. This saw him working at Florina and Pitcairn (in 1964), and Tiverton and Nackara (in 1965).³⁹ However, he did not publish any quantitative data on motif frequencies until 1965,⁴⁰ when it became the major focus of his analysis.

By 1965, Edwards had also extended his work into Central Australia, comparing the frequency of different motifs at six localities in north-east South Australia (Florina, Panaramitee, Pitcairn, Tiverton, Nackara and Winnininnie) with several localities in Central Australia (Tukulnga,⁴¹ and at Roma and N'Dhala gorges).

Methodology

Before 1960, most rock art research was qualitative and broadly descriptive, as researchers attempted to get a broad picture of regional variability in art across the continent, delineate major art

³⁴ Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT.

³⁵ Mountford and Edwards (1962).

³⁶ Mountford (1960) p. 145.

³⁷ Mountford and Edwards (1963).

³⁸ Mountford and Edwards (1963) p. 136.

³⁹ Edwards (1964, 1965a, 1965b, 1966a).

⁴⁰ Edwards (1965a).

⁴¹ Edwards (1966a, 1968b).

provinces, and estimate the age and sequence of rock art. Edwards' early work on rock engravings with Mountford shared this approach and throughout his research Edwards saw the core of his work as a photographic survey of the art.

Nevertheless, sometime before 1964, in the Flinders Ranges, Edwards had begun to collect a range of quantitative data (mostly on motif frequencies at sites, but also some data on motif dimensions and on style and composition).⁴² In his 1965 study of Nackara, he set out his aims writing: 'The engraved figures—their numbers, grouping and distribution at various sites present to some extent a general pattern of similarity. A comparative study is in progress by means of a quantitative analysis of details of the occurrences.'⁴³

To gain a first-order overview of the structure of this art he grouped his motif counts into broad classes of motif, concatenating data on the dimensions of motifs, style and composition into ten motif classes, explaining that: 'Only a simple grouping is adopted here; detailed descriptive and quantitative analysis of the data should lead to a more comprehensive scheme of classification.'⁴⁴

His explicit aim was to determine 'whether statistical comparisons would reveal any significant information.'⁴⁵ The impetus for his 'motif count' approach is not clear. It seems unlikely to have arisen directly from his partnership with Charles Mountford, who was mostly concerned with basic recording of rock art sites, although Edwards regarded Mountford as 'the leading spokesman for rock art at this time.'⁴⁶ Edwards' novel approach may have been a response to the obviously repetitive nature of this abstract art with its frequent use of tracks and circles.

In the field, Edwards concentrated on the major engraved pavements at each site, leaving aside the peripheral or satellite areas of engravings. Unlike most rock art researchers at this time, Edwards was aware of the effects of sample size. Because of this, he was careful to ensure that he had samples of 1000–3000 individual motifs from each of his sites.

Edwards was also clearly aware that factors such as patination state, style and superposition potentially created more structure in the rock art than his analysis revealed. For instance, he noted that motifs 'vary in size and shape and some designs are superimposed on others'⁴⁷ and that: 'The simple circle, one of the more common designs ... is also associated with tracks ... while multiple circles form the more complex designs ... Many simple and concentric circles enclose other designs'.⁴⁸

However, Edwards could not discern any general patterns, or set up a relative chronology for his Panaramitee-style rock engravings—

something that also eluded later rock art researchers, such as Lesley Maynard.⁴⁹ On variations in patination he specifically noted that 'as no particular variation in patination exists at the Tiverton site ... or any other in the Manunda-Yunta Creek drainage area of the north-east of South Australia, it has not been possible to establish such chronology'.⁵⁰ The only exception concerned dingo tracks. Wherever dingo tracks were represented amongst the engravings they were only lightly patinated—or unpatinated—he later noted.⁵¹

In hindsight, we can identify several problems with Edwards' methodology. First, the use of broad motif classes concatenated data on element, style and composition. One example of this is where his scheme lumped single or paired tracks, and track-lines (where the tracks are essentially graphic elements in a composition), into one broad category of 'tracks'. In a similar fashion, his classification allowed no stylistic distinction between tracks that were anatomically detailed intaglios and others that were more schematic depictions.⁵² Similarly, his category of circles does not separate concentric motifs from plain circles, or small circles with thick pecked outlines from larger circles with more rudimentary pecking. Nor does it distinguish between 'dots' in clusters and those occurring as isolated graphical elements. This approach means that much of the similarity that he observed between widely separated regions was an artefact of his method, although Natalie Franklin was later to show that not all regional variability had been erased.⁵³

Second, this type of data reduction also inherently dampens variability between sites. For instance, his merging of the major site-specific motifs (such as engraved faces) into a broad indeterminate class that he labelled 'other', acted to remove a large degree of the inter-site variability in his data. He noted this issue but could not address it, observing in his Tiverton study that: 'Examination of a series of sites in this region shows that each has a few specific engravings which are either absent or rarely occur at the other sites.'⁵⁴

Third, despite his interest in statistical comparisons, he did not apply any formal statistical tests to data that seemed suited to use of the correlation coefficient (R); a similarity matrix (Euclidean distance between sites or localities); a seriation from abundance matrices; or a chi-square test for independence. The 1960s were the heyday of statistical methods in the biological and social sciences,⁵⁵ with the first release of the widely used *Statistical Package for the Social Sciences* (SPSS) in 1968.⁵⁶ The problem for Edwards may have been that he could not get access to a university computer centre to run SPSS routines, or that by 1973 he had been drawn into work in the Alligator Rivers region just at the point where his

⁴² Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT.

⁴³ Edwards (1965b) p. 21.

⁴⁴ Edwards (1965a) p. 226.

⁴⁵ Edwards (1966a) p. 33.

⁴⁶ Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT.

⁴⁷ Edwards (1965a) p. 229.

⁴⁸ Mountford and Edwards (1963) p. 138.

⁴⁹ Maynard (1988) p. 30.

⁵⁰ Edwards (1965a) p. 229.

⁵¹ Edwards (1971) p. 362.

⁵² For example, see McDonald (1983).

⁵³ Franklin (2004)

⁵⁴ Edwards (1965a) p. 226.

⁵⁵ For example, Siegel (1956). Zar (1974).

⁵⁶ Stauber (2018).

accumulated data on rock engravings would have supported more elaborate statistical analysis.

Setting aside these contemporary concerns, we can see that Edwards used his data to give a first-order picture of the uniformity in rock art sites across an immense arid region that undoubtedly shares a common graphic vocabulary. His counts also represent the first quantitative account of the extent and abundance of rock engravings in arid Australia, and the number of sites where they occur. In this, his counts provide the first quantitative data on past production of rock engravings in the interior of the continent.

Interpretation

Although there were long-standing arguments for the antiquity of these engravings, Edwards used his data to explore this question in a new way, using a range of evidence, including site condition and location, to make the case that this was an ancient art.

By 1966, he was pointing to the overall similarity of rock engravings between distant sites, writing that the 'sites and engravings considered are shown to have many features in common', and that the 'similarity in the percentages of the various engraving designs at the five sites considered provides new evidence of a relationship between widely separated sites'.⁵⁷ Edwards concluded that his rock art data 'indicate the possibility of a basic simple rock engraving culture having prevailed over a wide area of the Australian Continent'.⁵⁸ In an interview in 2019, he indicated that he had interpreted this as a 'culture area', stressing that there were large numbers of such sites, and that track motifs existed over an immense area.⁵⁹ He was never explicit, however, about the factors that had produced such a widespread 'engraving culture', although later researchers were to associate it with open social systems during initial colonisation of the interior.⁶⁰

In 1971, he summarised his views on the antiquity of the engravings, noting (a) the high degree of weathering, patination and break-up of engraved pavements; (b) their proximity to scatters of large stone artefacts that he presumed were archaic types; and (c) the location of engraving sites near water, which, he implied, was different to the distribution of recent art sites.⁶¹ To Edwards, both the archaic stone tools and evidence of an arid landscape apparently suggested an early Holocene antiquity for the engravings, though later scholars have generally assumed a late Pleistocene age for Panaramitee-style rock engravings.

Edwards thought that the large blocky stone artefacts and flakes, associated with the engravings, were archaic. However, he was not

specific about what time period they related to, and only loosely identified them as 'Kartan'. His ideas on this matter preceded identification of a Pleistocene 'Australian core tool and scraper tradition'⁶² and relied on the putative stone tool sequences of N. B. Tindale and H. Cooper, at the South Australian Museum. In 1971, he suggested that the core and flake artefacts at the engraving sites dated somewhere between 16,000–5000 years ago.⁶³

His focus on water implied that the engraving sites might date to an arid period. Edwards would not have been thinking of Pleistocene aridity, as until the end of the 1960s the Pleistocene was generally understood to have been a cool pluvial period followed by major aridity in the early Holocene.⁶⁴ He was undoubtedly influenced in this view by R. L. Crocker and J. G. Wood, two South Australian scholars who had suggested in 1947 that the early Holocene had been a 'Great Australian Arid Period' involving a short, sharp period of extreme aridity 6,000–4,000 years ago.⁶⁵

Although Edwards was not explicit about the age of the 'rock engraving culture' that he had identified, the emerging archaeological evidence for mid-early Holocene rock engravings at Ingaladdi⁶⁶ was unavoidably a factor in his assessment.⁶⁷ He notes that 'I was spellbound by the work of Mulvaney'.⁶⁸

Inspired by this work, he attempted to date a hearth containing fragments of engravings (mostly macropod tracks) at Panaramitee South, but those results remained unpublished.⁶⁹ Other than at Ingaladdi, this was the first attempt to directly date rock engravings in Australia. Although Edwards' hearth gave a modern radiocarbon age (ANU 388, F14C 1.0 ± 0.01 —equivalent to 0.80 ± 78 BP), it clearly provided only the latest possible age for the fragments of engravings that it contained, and must be older.

Of more interest is the fact that Edwards (from estimates that he gave on his radiocarbon submission form) expected these engravings to be 6,000–7,000 years old. This clinches the issue. In contrast to the later view that this was a Pleistocene pan-continental art, Edwards had expected his 'archaic' engravings to be early or mid-Holocene in age.

During his work in the Flinders Ranges in the early 1960s, Edwards had also collected, and sectioned, a piece of patinated rock to examine the thickness and likely age of the patination skin.⁷⁰ This is likely to have been inspired by Basedow's earlier work on patination in the Flinders Ranges, in which a comparison with the patina on known-age rock samples from Egypt suggested to Basedow that Australian rock engravings in the Flinders Ranges were several thousand years old.⁷¹

⁵⁷ Edwards (1966a) p. 37.

⁵⁸ Edwards (1966a) p. 37.

⁵⁹ Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT.

⁶⁰ Smith (1992).

⁶¹ Edwards (1971).

⁶² Bowler and others (1970).

⁶³ Edwards (1971) p. 359.

⁶⁴ Smith (2014).

⁶⁵ Crocker and Wood (1947).

⁶⁶ Mulvaney (1975) p. 185.

⁶⁷ See Edwards (1968b) p. 667. (Edwards 1971) p. 363.

⁶⁸ Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT.

⁶⁹ Edwards (1971) pp. 359–360 and plate XXVIII.

⁷⁰ Phone interview with R. Edwards on 14 November 2019, M. Smith, Canberra ACT; Edwards (1971) pp. 360–361.

⁷¹ Basedow (1914) pp. 199–200.

As archaeological research in Australia expanded in the 1960s,⁷² the imperative to correlate rock art data with stone artefact sequences and the emerging evidence from stratified excavations also grew. In this context, Edwards' approach to the relationship of engraving sites with archaic stone tools represents an early attempt to align art and stone, prefiguring later research.⁷³

Only late in his program of rock art research did Edwards consider the socio-cultural aspects of rock art. By 1968, he was starting to look at the relationship between rock art and the contemporary landesque ideology of Aboriginal societies, noting: 'the location of sacred painting sites near water supplies with camping places at a convenient distance is characteristic of the known traditional nomadic way of life' and that 'painted tracks usually represented the totemic ancestors of the Dreamtime.' More specifically, he noted that 'the engravings are said by the Aborigines to belong to the Dreamtime.'⁷⁴ He also noted that some sites with large numbers of engraved emu tracks also have painted art dominated by emu tracks.⁷⁵ This led him to question the links between paintings and engravings, between what were possibly different bodies of rock art, one clearly a contemporary living art and the other perhaps an ancient rock art.

Edwards did not propose a name for his early engravings. As Lesley Maynard says: 'Godfather Bob never christened his infant.'⁷⁶ Initially, it was simply referred to by rock art researchers as 'the Bob Edwards style',⁷⁷ until Maynard labelled it the 'Panaramitee style'.⁷⁸

Discussion

In the decade following Edwards' research, Lesley Maynard reinforced the idea that Panaramitee-style engravings were remnants of an ancient Aboriginal social landscape, and that this art was both foundational and a relatively undifferentiated graphic tradition. Subsequent work has associated this art style with early colonisation of the interior as well as more open social systems during this period.⁷⁹

The notion of an ancient Panaramitee art has framed rock art research for fifty years, since Edwards first put his ideas forward.⁸⁰ Somewhat inevitably, recent research has also challenged various aspects of this proposition, including questions about the coherence of this rock art tradition especially its regional variability and temporal extent,⁸¹ its dating,⁸² and its relationship to painted art.⁸³ These have raised a fundamental question about whether

Panaramitee-style rock engravings reflect an extended period of production, employing a similar graphic vocabulary over a long period of time, or alternatively whether all the engravings are ancient and belong to a single phase of rock art. In this context, there is the related question about whether there is a 'painted Panaramitee' or whether medium and mode of production are intrinsic to this art.⁸⁴ A link between Panaramitee-style engravings and colonisation of the interior has also become more problematic as evidence for settlement of these arid regions has been shown to extend back 45,000–50,000 years,⁸⁵ raising so far insoluble questions about age estimates for individual engraved pavements. This also sharpens the issue of whether the engravings constitute a discrete early art phase, or whether they result from a long extended period of production reaching into the last few millennia. This last issue has emerged as the major analytical challenge for research into rock engravings. To treat the entire corpus of engravings as synchronic potentially conflates art assemblages that are possibly tens of millennia apart, and undermines analyses of their regional and stylistic structure.

Although the idea of Panaramitee as an ancient pan-continental phenomenon is now the predominant legacy of Edwards' rock art research, he also deserves to be recognised for his contribution to methodology, where his quantitative approach has inspired other researchers. In addition, his work provides one of the earliest descriptions of the distinctive graphic system in the interior—a track and circle art with a vocabulary that is also used in the contemporary desert acrylic paintings that Edwards later championed. The structure and function of ethnographic art in Central Australia was first formally described by T. G. H. Strehlow in 1964,⁸⁶ but Edwards' work between 1965 and 1968 contributed to the emerging picture of this art and suggested that it had a pre-historic counterpart.

In this context is relevant to note Edwards growing appreciation that the art and totemic system were interlocked. For instance, in 1968, we find him writing: 'the presence of a large number of engraved emu tracks at this site may indicate that the emu ceremony dates from a period when rock engraving was a living art.'⁸⁷

Among his many achievements, Bob Edwards is also responsible for the first systematic archaeological survey of Central Australia, although this was limited to rock art sites. By comparison, Richard Gould was only just starting his pioneering excavations at Puntutjarpa in 1967.⁸⁸ Eugene Stockton undertook the first archaeological

⁷² Griffiths (2018).

⁷³ For example, Morwood (1979).

⁷⁴ Edwards (1968b) p. 664.

⁷⁵ Edwards (1968b) pp. 661–663.

⁷⁶ Maynard (1988) p. 30.

⁷⁷ Cited in Maynard (1988) p. 30.

⁷⁸ Maynard (1976) p. 182, Maynard (1979) p. 92.

⁷⁹ Smith, (1992).

⁸⁰ For example, Dorn and others (1988). Forbes (1982). Franklin (2004). Maynard (1976). Maynard (1979). Nobbs (1984). Ross (2003, 2005). Rosenfeld (1991). Rosenfeld and others (1981). Rosenfeld and Mumford (1996). Smith (1992). Smith and others (2009).

⁸¹ Franklin (2004). Rosenfeld (1991).

⁸² Smith and others (2009). Dorn and others (1988).

⁸³ Nobbs (1984) p. 111. Ross and Abbott (2002).

⁸⁴ Nobbs (1984) p. 111. Ross and Abbott (2002).

⁸⁵ Hamm and others (2016). McDonald and others (2018). Smith (2013).

⁸⁶ Strehlow (1964).

⁸⁷ Edwards (1968b) p. 664.

⁸⁸ Gould (1968).

excavation in the Alice Springs region, digging at Kerringke rock hole in 1969.⁸⁹ Edwards' work was the only broad-ranging survey before Gould's surveys with L. K. Napton and A. Albee in 1973.⁹⁰ Edwards' survey framed later rock art research in the Centre,⁹¹ as well as the excavations at Puritjarra rock shelter in 1987.⁹²

Finally, like many subsequent rock art researchers, Edwards produced an invaluable photographic archive of rock art sites in the Northern Territory as they were fifty years ago—an archive that has become more valuable as these sites deteriorate, or are repainted, and which has been fundamental in underpinning later syntheses.⁹³

Conclusion

Edwards' research took place during a decade when rock art research became more systematic, analytical and quantitative⁹⁴. His work sits squarely between the earlier descriptive work of Fred McCarthy and Charles Mountford, and the shift to modern rock art research represented by Lesley Maynard, Mike Morwood and Andrée Rosenfeld. Edwards' research on rock engravings was a key part of this shift, prefiguring later work that treated rock art as a type of archaeological data that might be integrated with the picture of a prehistory that was rapidly emerging in the 1960s and 1970s from archaeological excavations at stratified sites.

Edwards' interests also changed during this decade. His exposure in 1966 to Rugari was the beginning of his appreciation that many of the sites that he regarded as ancient were part of a living religion. Initially, he had treated rock engravings as an ancient art lost to the present, a remnant of a distant period of Aboriginal prehistory. His subsequent championing of the Papunya Tula art movement shows that he was not locked into an antiquarian perspective. In this sense, we get a picture of Bob, who, like many field workers in remote Australia, was transformed by the encounter with the desert, totemic sites, and with the landesque ideology of Aboriginal people in Central Australia.

Conflicts of interest

The authors declare no conflict of interest.

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- ⁹⁴ Griffiths (2018) pp. 174–199. Morwood (2002) pp. 64–88.
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