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Abstract

A date has been obtained for engraved art at a site in central-western Queensland. This may have more general implications for the art of the area.

Ken's Cave is a rock-shelter located near the crest of the Great Divide, between the Barcoo and Belyando drainage systems, in central-western Queensland. It occurs at the base of a sandstone cliff of the Precipice Series, and from it a slope of large sandstone blocks descends to a forested sand flat. Here vegetation is predominantly of Black Wattle (Acacia cunninghamii). Narrow-leaved iron-bark woodland (Eucalyptus drepanophylla) is found beyond this on the steep slope down to undulating flats. These are dominated by communities of brigalow regrowth (A. harpophylla), brigalow-blackbutt forest (A. harpophylla-E. cambageana), silver-leaved iron-bark woodland (E. melanophloia), and poplar box grassy woodlands (E. populnea). The present property-owner knows of no water-source close to the site.

The site measures 13 by 7 m, with a maximum height at the drip-line of 6 m. It faces due west (Fig.1). An occupation deposit is evident at the drip-line, where ash, charcoal, stone tools and bone have been exposed by erosion, and are slumping down a steep, poorly consolidated scarp of sand and talus. A grindstone was also found in situ.

On the floor of the shelter, a number of sandstone blocks occur, and engravings occur on five of these. The largest block measures 4 by 2.5 m, with a maximum height of 1 m. This example dominates the shelter, and has a particularly numerous and varied range of engravings upon it (Fig.2). These are present on the large, flat, upper surface, and the three accessible sides of the block. Although pecking is the predominant technique used, motifs have also been executed by battering, by abrasion, and by a combination pecked-then-abraded technique. Traces of pigment can also be discerned; these include a red hand stencil, a red painted outline of a fully pecked, multi-tiered arc, and a white pigment infill of a deeply pecked pit. The engravings include cups and rings, and the tracks of emus, macropods and humans. Close examination shows that some older motifs have subsequently been modified or added to.

Art also occurs on the rear wall of the shelter. This comprises stencils of hands and feet, boomerangs and axes, simple painted geometric designs, and abraded grooves, cups and rings, and grids. Colours include red, yellow, orange and black, although red predominates. Pecked motifs occur here also, but are infrequent. Certainly there are significant differences between the art on the boulder and the art on the rear wall, both in motif types and frequencies, and the technique favoured.
The nature of the talus, and its disposition indicate that all was derived from the shelter roof, and that the art on the boulder and on the shelter wall, must have been executed after the fall. A preliminary investigation also revealed that the occupation deposits had probably been deposited prior to the rock fall. An initial test pit and subsequent excavation have confirmed this.

A 50 cm² test pit was excavated on the SW corner of the boulder. Excavation was by 10 cm levels, or by natural layers, whichever was the smaller. All material was sieved through 9, 5 and 2 mm sieves. Four occupation layers were distinguished, with Layers 2 and 3 being separated by a lens of small rock fall talus, which could be traced beneath the large boulder. Since the deposits beneath the minor fall must have been deposited before the collapse of the over-lying boulder, a carbon sample from layer 3 was submitted for dating. This yielded a date of 1380 ± 70 BP (ANU 1853). Subsequent excavations have shown that all occupation layers were deposited prior to the fall of the large boulder. Thus the date obtained, represents an absolute maximum age, both for the art on the boulder, and on the shelter wall. It is probable then, that the major rock fall heralded a change in site function, as no deposits postdate this event. This change may have been from occupation shelter to mortuary area, as there are still human bones and burial cylinders in crevices and tubes adjacent to the site.

Discussion

This date considered in isolation is not particularly informative, unless tied in to other evidence, either in the immediate vicinity, or to a more general Australian sequence.

Consider first the few absolute datings for Australian engravings (Table 1). These tend to indicate a considerable time depth for regional variability in art, not in accord with general models proposed for an Aboriginal art sequence (e.g. Davidson 1937; McCarthy 1960a, 1962; Maynard 1974; Mountford 1959).

Relative dating from known regional sequence, e.g. Arnhem Land (Brandl 1973), Carnarvon Gorge (Quinnell 1976), Cape York (Tresize 1971), the Pilbara (Wright 1968), shows a disturbing lack of correspondence between areas, which is not readily explained by differential development along a generalised Australian sequence. For instance, in Central Australia the most common art motifs are curvilinear designs or geometric figures (concentric circles, U-figures etc.), and tracks, although figurative art also occurs, (Spencer and Gillen 1938:614; Strehlow 1964:45). There is some evidence from engravings that this predominance may have a considerable antiquity (e.g. Edwards 1965, 1966, 1971). Evidence of this art type is lacking in western and central Arnhem Land, where the artistic sequence begins with crude paintings, predominantly of animals, with the complex styles of Mimi and X-ray subsequently appearing (Brandl 1973:177). Here there are also indications that the sequence has some time depth, as Thylacines appear as subjects in the Mimi art (Brandl 1973:192; Lewis 1977:98-111). At present the most recent study for Thylacines on the Australian mainland is 3300 BP (Partridge 1967). Both absolute and relative dating evidence, therefore, tend to suggest that general models for Aboriginal artistic development in Australia are not in accord with the considerable temporal/regional variability even now evident.
### TABLE 1 Dates for Australian rock engravings

<table>
<thead>
<tr>
<th>Site</th>
<th>Age</th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koonalda Cave, SA</td>
<td>23,700 BP</td>
<td>Finger markings. Incised grids and 2 sets of concentric circles</td>
<td>Wright 1971:63</td>
</tr>
<tr>
<td>Early Man Shelter, Cape York</td>
<td>&gt;c.13,000 BP</td>
<td>Weathered peckings</td>
<td>Rosenfeld 1975:40</td>
</tr>
<tr>
<td>Ingalaadi, NT</td>
<td>5-7000 BP</td>
<td>Incised lines and 'bird track' motifs</td>
<td>Mulvaney 1975:289</td>
</tr>
<tr>
<td>Devon Downs, SA</td>
<td>&lt; 4250 BP</td>
<td>A sequence from incised lines to meandering lines and turtles, to straight line markings</td>
<td>Hale and Tindale 1930:208</td>
</tr>
<tr>
<td>Ken's Cave, QLD</td>
<td>&lt; 1380 BP</td>
<td>Pecked tracks and cups and rings</td>
<td></td>
</tr>
</tbody>
</table>
The art of central Queensland is characterised by the predominance of the stencilling technique, by the painting of simple geometric designs, and the engraving, mainly by abrasion, of a variety of simple motifs, most noticeably the cup and ring, and tracks (Crosby 1968; Elkin 1940; Goddard 1941; Keegan 1970; McCarthy 1960b; Quinnell 1975, 1976). Open art sites, where pecking is the predominant technique, have also been recorded (Chisholm 1901, 1903; Morwood 1976; Wilkins 1928). Recent fieldwork has increased the number of such sites known from central Queensland. Their advanced state of weathering and degree of patination, suggest that many of these sites are of some antiquity, while their proximity to water, association with occupation and range of motifs, is reminiscent of sites recorded from Cape York (Tresize 1971), western Queensland (Elkin 1949; Eussen 1975; Kelly 1968), western NSW (McCarthy and McIntosh 1962; Mountford 1962), South Australia (Edwards 1965, 1966; Basedow 1925; Mountford and Edwards 1963), central Australia (Edwards 1966, 1968; Mountford 1962), and Tasmania (Davidson 1936; Mulvaney 1975).

Individual or groups of pecked engravings also feature as a minor component in rock shelter art assemblages of central western Queensland, where they can be related by superimposition analysis, and by differential weathering, to the more common elements of central Queensland shelter art listed above. Both superimposition analysis and visual assessment indicate that pecked engravings are the earliest motifs now present at many sites.

Given a situation where two principal groups of engravings can be distinguished, both on the basis of technique and motif types and frequencies, a date obtained for one group is still ambiguous. This is because the groups may represent local Aboriginal art at different times, or may represent contemporary art forms reflecting differences in the nature of the art surface, or of site function. The bulk of the evidence at present indicates the former alternative, i.e. a change from pecking as the predominant engraving technique, to abrasion, and a parallel change in the types and frequencies of motifs. The implication of this then, is that the majority of art now evident in the rock shelters of central western Queensland is not of great antiquity, i.e. it postdates 1450 BP. Certainly the nature of the matrix at many of these shelters (coarse grained, poorly cemented, friable), probably means that much of the surviving art (paintings and engravings) is likely to have been executed late in the sequence. This is particularly so when the shelters have been used as habitation sites (Hughes 1976:53). Pecked engravings in shelters seem to be intermediate in motif types and frequencies, between open air art and abraded rock shelter engravings, and it is tempting to equate this with an intermediate age.

This dichotomy of alternatives however, assumes a simple linear model for the development of art in the area. Common-sense indicates that even with a general change from pecking to abrasion as the preferred engraving technique there could still be a flexibility by which technique was dictated to some extent, by the nature of the art surface. Both pecking and abrasion cannot be profitably employed on some surfaces. If then, further dates are obtained, which demonstrate a greater time depth than 1450 BP for abraded engravings in the area, then such a simple model for the development of the art would not be applicable. Where the data suggests multiple sources of artistic variation, then the other factors such as the constraints imposed on
engraving technique by the nature of the art surface, the consequence of this on motif-types, and the differing functional significance placed on sites, or areas of sites, become relevant.

These sources of variation are not necessarily uncorrelated as shown: for instance the nature of the art surface could influence site function or the superimposition sequence at the site. In such a situation the significance of the Ken's Cave date could only be extrapolated (even to a regional sequence) by using techniques capable of isolating the time dependent factor.

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