

Of Lightning Brothers and White Cockatoos: dating the antiquity of signifying systems in the Northern Territory, Australia

BRUNO DAVID, IAN MCNIVEN, VAL ATTENBROW, JOSEPHINE FLOOD
& JACKIE COLLINS*

Northern Australia is one of the very few regions of the world where an established tradition of rock-art has continued and extends into present-day knowledge. Excavation of deposits under the painted surfaces allows the age of the paintings to be estimated, by linking across to these deposits and their dateable contexts. One can begin to assess the antiquity of those systems of knowledge and of 'signifying'.

Introduction

A number of authors have argued that the late Holocene was a period of widespread change in Aboriginal Australia (e.g. Lourandos 1983; David 1991). Such changes may have involved a major restructuring of socio-political systems, such as the beginnings of ceremonially based, extractive networks geared to the large-scale management of resources (including eels) in western Victoria (Lourandos 1983; 1991). In north Queensland, David (1991) has argued that, during the last 3000 years or so, systems of land tenure and/or regional interaction networks may have changed. However, as far as we know, no researcher has attempted systematically to relate changes observed in the archaeological record with broader concerns relating to past belief systems. Recognizing the difficulties of such a program, we address this issue with an investigation of the archaeology of a number of locations (Yiwarlarlay, Menngiya and Garnawala) in what is today Wardaman country.

Wardaman country

Wardaman country is renowned archaeologi-

cally for its vast body of rock art, which to the local Wardaman people is visual proof of the Dreaming itself. To archaeologists, such paintings were created some time in the past — they have a definable antiquity. Given their importance in Wardaman society today, and their identity as signifiers and signified of the belief system we know of as the Dreaming, investigations of their antiquity may shed important light on the beginnings of the modern belief system itself. In essence we are looking for patterns, and we begin by asking whether or not the paintings which today express the identity of the land to Wardaman people were all initially undertaken within a time-specific and identifiable time frame. If this is the case, then it is possible that we are identifying the antiquity of the modern ontological system itself, or at least its expression, largely as we know it today. Knowing which of these two options we are observing, however, may be a major archaeological problem which we may not be able to solve.

Wardaman country is located to the southwest of Katherine, Northern Territory (FIGURE

* Bruno David, Department of Anthropology & Sociology, The University of Queensland, QLD 4072, Australia. Ian McNiven, Department of Classics and Archaeology, The University of Melbourne, Parkville VIC 3052, Australia. Val Attenbrow, Anthropology Division, Australian Museum, PO Box A285, Sydney South NSW 2000, Australia. Josephine Flood, Australian Heritage Commission, PO Box 1567, Canberra ACT 2601, Australia. Jackie Collins, Department of Archaeology and Palaeoanthropology, University of New England, Armidale NSW 2350, Australia.

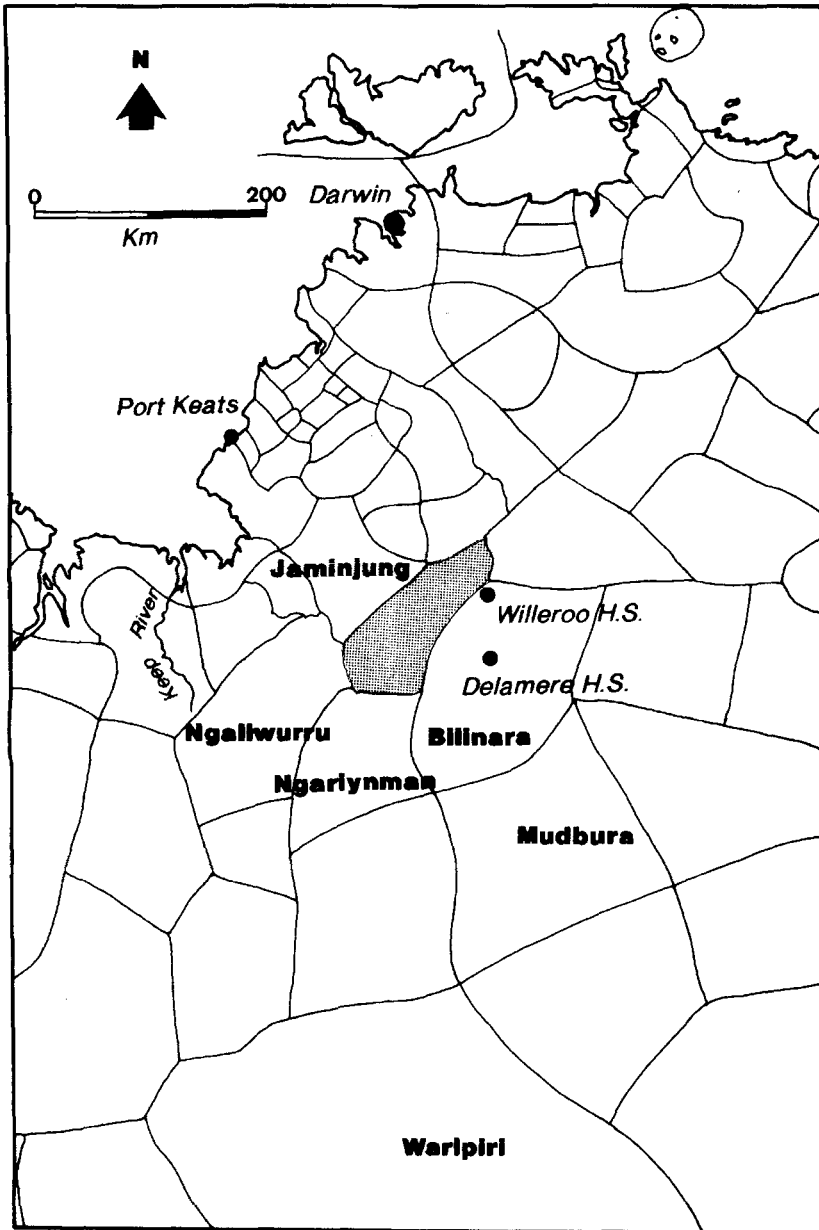


FIGURE 1. Wardaman country. (After Tindale 1974.)

1). Wardaman people generally recognize matrilineal totems (the *ngurlu*), assign sub-section partly, though not exclusively, through the mother, and practice a matrilineal system of parent-child relationship. There exists a matrilineal complementary relationship to land, with patri-filiation being primary.

During the recent past, Wardaman country was divided into various estates, each of which reckoned a cosmological identity with specific

Dreaming beings. Some of these were travelling beings (such as *Gorondolni*, the Rainbow Serpent), while others concerned specific parts of the landscape only (e.g. *Gandawaq*, the moon, at Jalibang). While the entire landscape thereby gained its identity and was made discontinuous by its affiliations with specific Dreaming beings and events, it was united into a cosmological whole by its common participation in a unified system of land and law expressed in

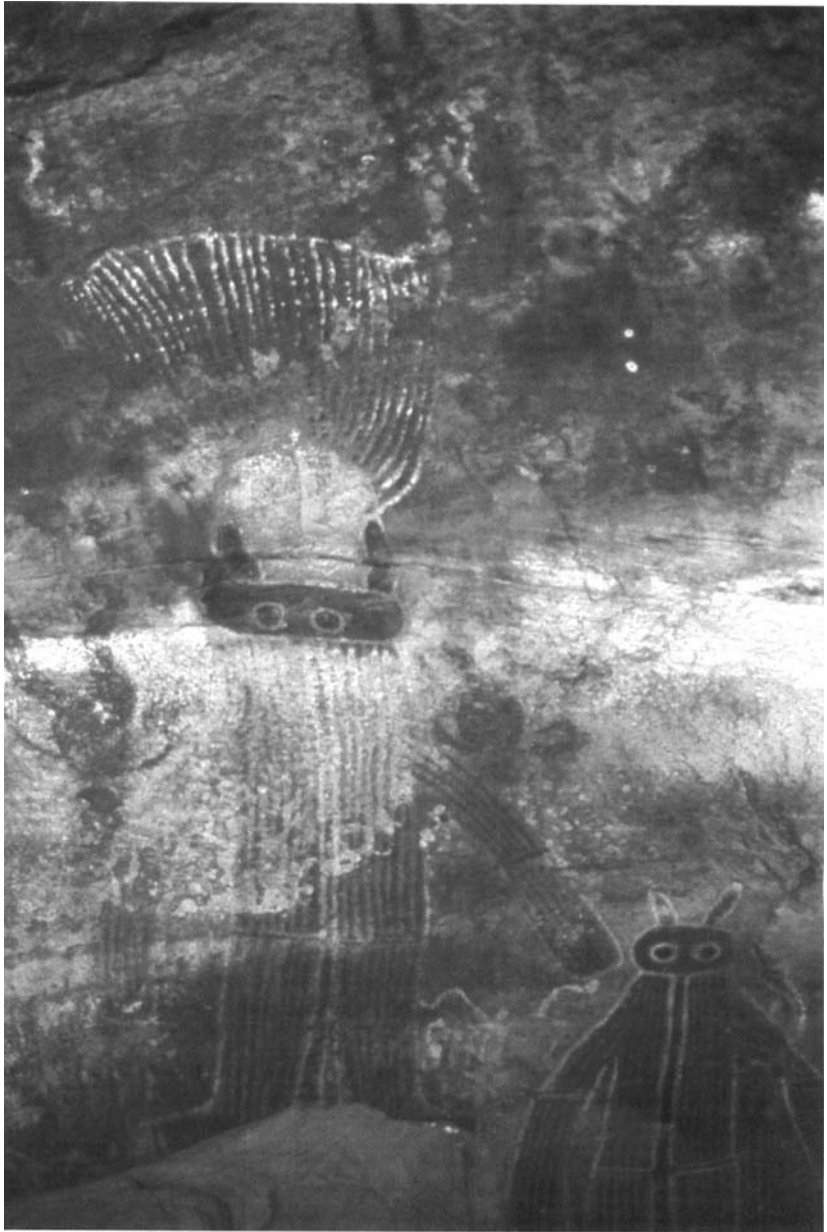


FIGURE 2. *Yagjagbula and Jabirringgi, the Lightning Brothers, at Yiwarrlarlay 1.*

the Dreaming. In this sense, the land is a humanized landscape (Rigsby 1981), and the way in which the various estates are broken up and inter-linked at various levels reflects the pattern of Wardaman land tenure and land use.

The land's Dreaming identities are central to the local belief system. It is in the Dreaming that Wardaman ontology is centred. Dreaming realities are expressed everywhere — in the mountains, rivers, trees and rock outcrops. As

Merlan (1989a: 4–9) notes,

The Wardaman use the word *laglan* 'country, place, site' (and also camp) to refer to tracts of country and places within them to which they claim attachment, as in the phrase *nganinggin laglan* 'my country'. Each such country is composed of many different sites, at least some principal ones of which are associated with estate-linked *buwarraja*, that is, creator figures or 'dreamings' which are saliently or exclusively identified with that particular country. An example



FIGURE 3. *Dreaming (buwarraja) fauna associated with the Lightning Brothers, Yiwarrlarlay 1.*

is the association of *girribug* 'pheasant coucal' with a particular country . . . of which the Willeroo homestead and some neighbouring places are focal sites. In addition to these particular estate-linked and bounded dreamings, through each country there pass at least some mythological paths of other, long-range dreamings, many of which . . . happen to come from the west and northwest, as far away as Port Keats and Western Australia. Thus each country, or 'estate' (see Maddock 1982) is defined by a particular constellation of far-travelled and more local dreamings and sites.

In short, the landscape consists of a complex patchwork of landed Dreamings criss-crossed by non-local, travelling ones, both of which give identity to the land and link Wardaman country with neighbouring lands. Individual places identified as of specific significance to Wardaman people take many forms, from features such as water-holes or hills to smaller objects such as rocks or prominent trees, including individual or complexes of rock-shelters. It is with the latter that we will be specifically dealing in this paper, for it is here that rock art is most commonly found.

Much of the 'art' located in Wardaman country is *buwarraja* and was never created by people, but is (rather than represents) the Dreaming beings which sit in the rock (cf. Merlan 1989b; Frost *et al.* 1992). Such sites are imbued with the essence of Dreaming beings, whose identities often reflect the identities of the land in which the site (and hence paintings) occurs. In this way, the rock-shelters at Nimji and Murning, near the Yingalarri water-hole, have important associations with *gulirrida* (peewees), and as such many painted figures at these sites are *gulirrida* to local Wardaman people.

The identities of the paintings in Wardaman country express the narrative tradition, which is itself firmly embedded in the Dreaming. Given the archaeological observability of the paintings which express the current belief system, we have attempted to trace back archaeologically the history of the paintings themselves — that is, to date their antiquity and to document how they have changed through time. In doing so, we hope to arrive at some understanding of the dynamics of the belief system which

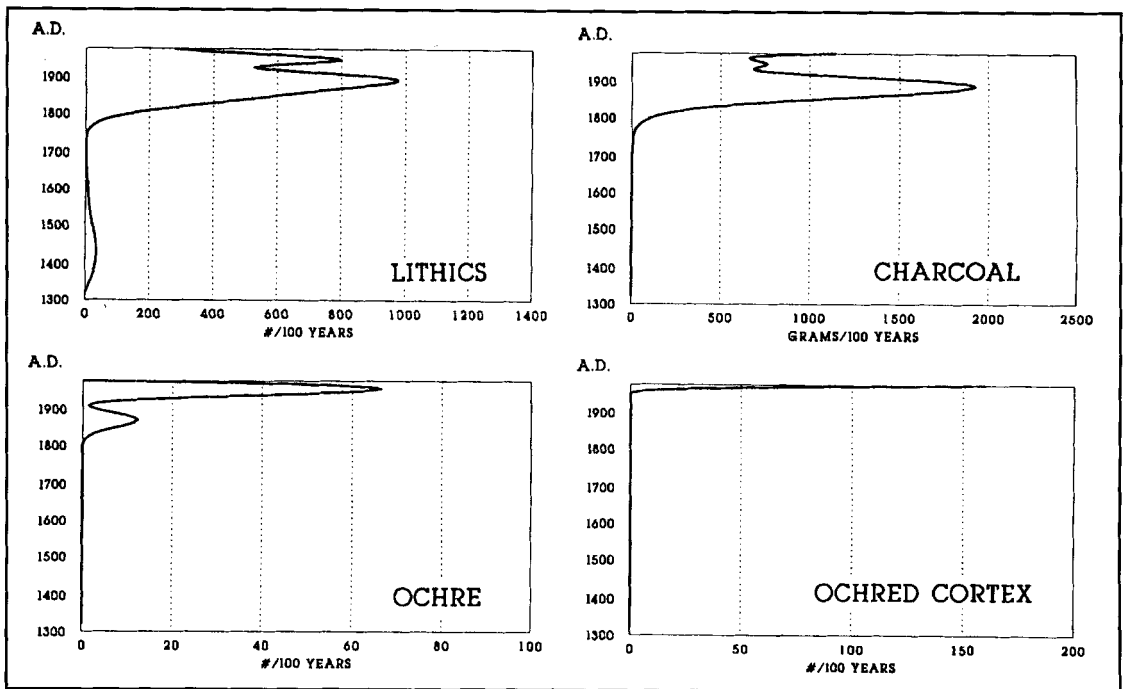


FIGURE 4. *Yiwarralarlay 1*: deposition rates of materials from excavation square E20. All deposition rates are per sq. m per 100 years.

has resulted in the creation of the observable rock art and/or in the way in which that belief system has been expressed in the past.

Yiwarralarlay

Yiwarralarlay is the home of the Lightning Brothers, Yagjagbula and Jabirringgi (FIGURE 2). The former is young and handsome, whereas Jabirringgi is older and rather unattractive. Ganayanda is married to Jabirringgi. Every day, one of the two brothers goes hunting, bringing back the day's catch to Yiwarralarlay. One day, as Jabirringgi returns from the hunt, he hears his brother with Ganayanda in a secluded fissure in the rock. In anger, he throws a spear at Yagjagbula, who evades it. The two brothers take up positions on the surrounding plains, whence a fight erupts, creating lightning in the skies. The frogs come up from the south, as does the rain, who watch the brothers fight. Eventually, Yagjagbula wins the fight by knocking Jabirringgi's head-dress off with his boomerang.

Some of these events are visible in the rock-shelters at Yiwarralarlay in the form of paintings, although knowledge of the story is necessary

for their appropriate interpretation (FIGURE 3). Two of these shelters — Yiwarralarlay 1 and Delamere 3 — were excavated in 1989 by the authors. Their results are summarized below.

Yiwarralarlay 1

This rock-shelter houses the Lightning Brothers. At Yiwarralarlay 1, there is no evidence that any of the paintings pre-date the arrival of Europeans (both the stratified ochre and the pieces of painted, exfoliated rock wall come from recent levels) (David *et al.* 1990; 1991) (FIGURE 4). David *et al.* (1990: 83) concluded that the paintings at Yiwarralarlay 1, and other similar paintings elsewhere in Wardaman country, may have been an attempt by local people to highlight the identity of the land by painting the local Dreaming beings on rock walls. This may have resulted from the dislocation of traditional people following initial European incursions into Wardaman country, restricting the local people's access to their traditional territories, and restricting also their ability to fulfil their required Dreaming obligations in some places. Hence, recent changes in artistic expressions observed at Yiwarralarlay 1 and other places may have been related to changes in

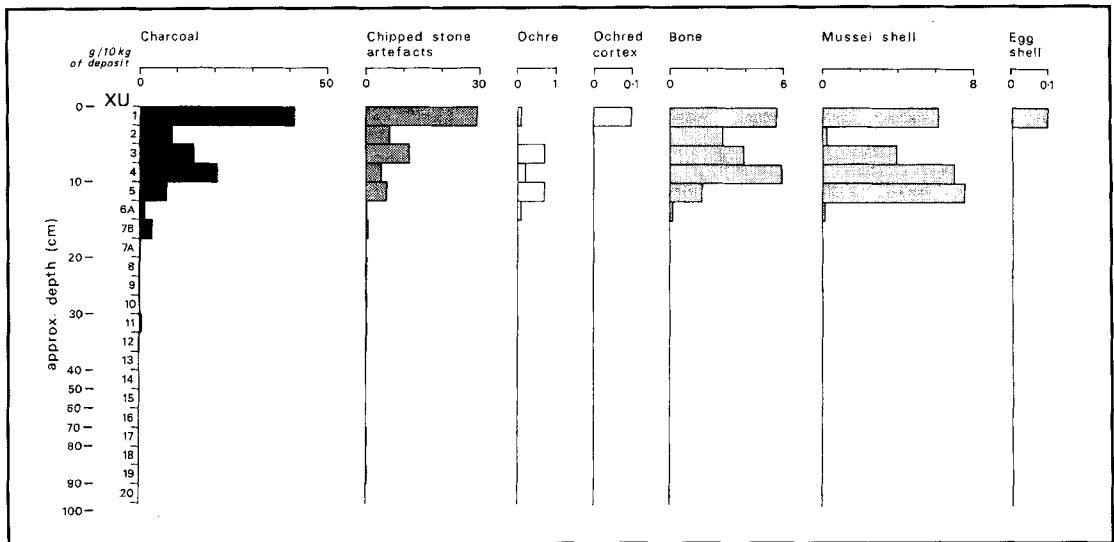


FIGURE 5. *Delamere 3*: quantities of excavated materials by excavation unit, square G16. (After McNiven *et al.* 1992.)

access to land in Wardaman country, changes which necessitated broader re-adjustments in the way Law and the Dreaming were articulated. These issues are beyond the scope of this paper, but have been explored further elsewhere (David *et al.* 1991).

Delamere 3

Excavations at *Delamere 3*, located at Yiwarlarlay opposite Yiwarlarlay 1, have shown that paintings here were only created during the last 380 ± 60 years or so (FIGURE 5) (McNiven *et al.* 1992). The appearance of *in situ* ochres at *Delamere 3* corresponds in time with a significant increase in the densities of other cultural materials, such as stone artefacts, bones and mussel shells.

Menngge-ya

Menngge-ya, 'at the white cockatoo', is a Dreaming place located at Jalijbang, Innisvale Station (FIGURE 6). At near-by Wynbarr, old man White Cockatoo has a number of wives who forage in the area for kapok ('native cotton') to feed their husband. One of these foraging places is Menngge-ya, where two wives can be seen 'sitting' in the rock. A few other Dreaming beings can also be seen near the two white cockatoos at Menngge-ya, but it is the latter that are visually dominant.

We excavated in 1989 below the painted panel, whose figures include two large striped

anthropomorphs (the white cockatoos), a zoomorph (a crocodile) and smaller anthropomorphs (Attenbrow *et al.* In press). Artefacts near the base of the sequence are dated at 2109 ± 60 BP (NZA 1624), below a major cultural change and large increase in the discard of stone artefacts at c. 2000 BP; in the lower Levels 4–5, there are five large ochre pebbles, reminiscent of those found today in an adjacent creek-bed, and 11 small non-angular pieces, which appear to be parts from larger blocks. Above the break in the sequence, in Levels 1–3, there are four ochre pebbles, 209 pieces, and two fragments (both in the uppermost Level 1) with distinct striations and/or bevelled surfaces that are evidence of their use. We think the pebbles were carried into the shelter by humans, perhaps for painting, perhaps for other uses: similar ochreous pebbles were used as hearth-stones in the Jalijbang 2 shelter near by (David *et al.* 1992). We think the smaller pieces had been used for painting, as some of them have use-striations and bevelling, while others are tiny pieces resembling those typically produced during painting activity.

The striped anthropomorphs in the rock-shelter, which are of very fresh appearance, show evidence of retouching. The painted crocodile underlies other paintings and, on the basis of superimpositions and degrees of fading, appears to be among the earliest paintings

at the site.

A five-fold increase in quantities of ochre in Level 4 indicates a major increase in painting activity around 2080 ± 90 BP, with peak pigment densities occurring between 1400 BP and 100 BP. It is difficult to relate the excavated ochres to the paintings currently visible at Menngiya, but the following chronology, based on the sequence of superimpositions, is proposed. The striped anthropomorphs are relatively recent (probably dating to post-contact or immediately pre-contact times), and may therefore correspond with the most recent peak in ochre from the deposits. That is, they were painted during the last 380 ± 60 years, while Level 1 or the top few centimetres of Level 2 were accumulating. The painting of the faded crocodile, which underlies the striped figures, may have taken place around 500 years ago, during accumulation of Level 3 or the lower half of Level 2. The other paintings at the site exhibit similar levels of disintegration to the faded crocodile, and may therefore be roughly contemporaneous with it (FIGURE 7).

Garnawala

In the Dreaming, two sisters are chased from Port Keats (northwest of Wardaman country) by Gorondolni, the Rainbow Serpent. They are followed by a diver duck and a flying fox, who are in turn followed by numerous animals — kangaroos, emus, peewees, dingoes, etc. The beings pass through Garnawala on their way southeast. At the Yingalarri water-hole, Gorondolni plays his didgeridoo. The diver duck approaches the Rainbow Serpent (who is not paying close attention to what is happening around him). The diver duck drags a spear along the ground between his toes, and when he gets close to the Rainbow Serpent, spears him. Some of the actors in this story travel through Garnawala, although the major events described take place about 15 km to the southeast, near the Yingalarri (Mulvaney's (1975) Ingaladdi) water-hole. The Dreaming beings at one site at Garnawala (Garnawala 1) include two elderly beings — *djangural* — who observe the events as they unfold near the Yingalarri water-hole. In the process, they watch over young *yirmi-nyonong* (FIGURE 8). In this way, the Garnawala sites are linked with the Rainbow Serpent story, which is itself a long Dreaming story linking numerous localities in Wardaman country and beyond.



FIGURE 6. Menngiya, showing White Cockatoos (menngen) and excavation squares.

Stanner (1961: 238) recorded three versions of this story at Port Keats during the 1930s. His 'Marithiel' version is reproduced here:

Lerwin, The Rainbow Serpent, had no wife. Amanggal, The Little Flying Fox, had two wives. Lerwin stole one of the women while Amanggal was looking for food. When he discovered the loss, Amanggal pursued Lerwin to a far country and slew him with a stone-tipped spear. Lerwin cried out in pain, jumped into deep water, and was transformed into a serpent. Amanggal flew into the sky . . .

Garnawala contains numerous sandstone outcrops, many of which contain large galleries of paintings. At one of these — Garnawala 1 — the authors undertook excavations in 1990 beneath a large painted frieze containing the *djangural* and *yirmi-nyonong* mentioned in the Rainbow Serpent story (see above) (FIGURE 8). Although sorting and analysis of the Garnawala excavated material has not been completed, preliminary findings are as follows.

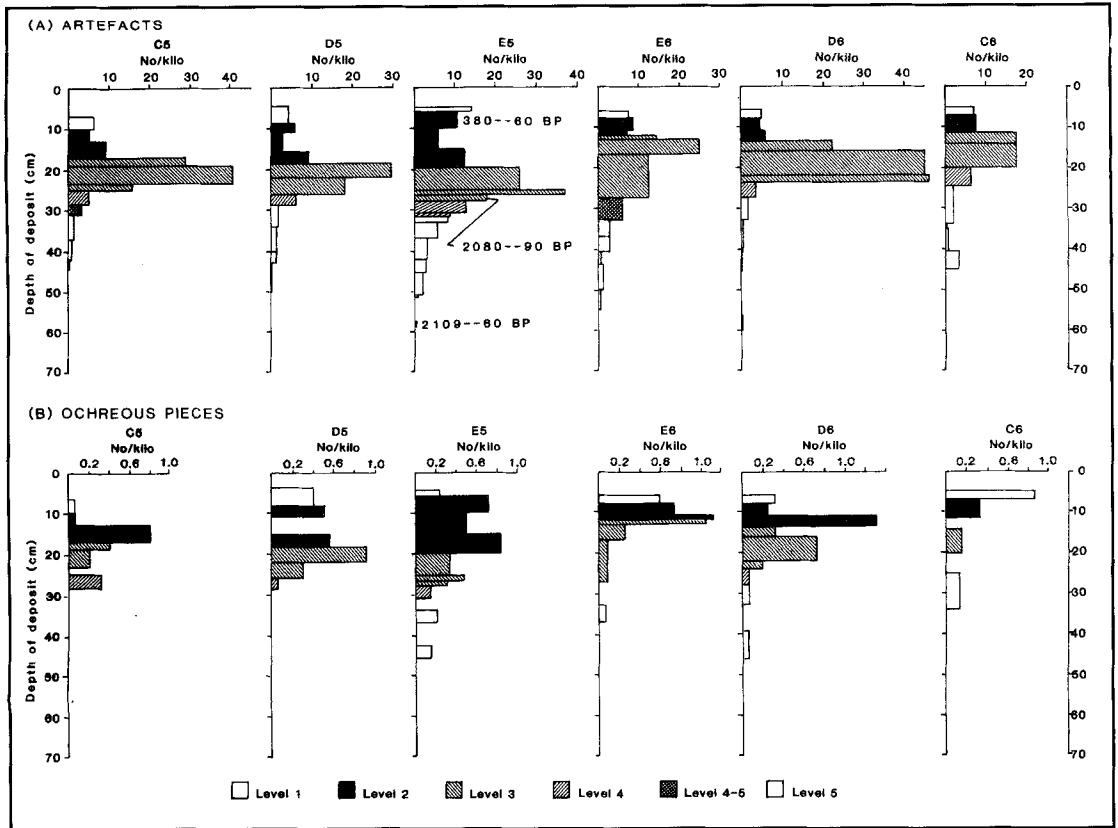


FIGURE 7. *Menngge-ya*: quantities of stone artefacts (A) and ochre fragments (B) by excavation unit from the excavated squares.

Occupation at Garnawala 1 began shortly before 5240 ± 70 BP (Wk-1764). Cultural materials in the early levels are relatively sparse, and do not appear to show any evidence of painting activity at the site. A major stratigraphic break, dated to 860 ± 65 BP (Wk-1763), indicates a major change in the types and quantities of cultural materials deposited at the site. Above this date, amounts of stone artefacts, hearths, burnt stones, mussel shells and other food refuse increase dramatically. At this time also we find the first evidence of intensive artistic activity at the site. Over 500 introduced fragments of ochre have been excavated, consisting mostly of red, yellow and white pigments. Preliminary results of the analysis shows that the beginnings of painting at the site dates to approximately 860 BP, a pattern of change well associated with the stratigraphic change noted above. A radiocarbon date of 939 ± 91 BP (NZA 1323), obtained from below

the stratigraphic break, re-enforces our confidence in the fine-grained dating of this change at Garnawala 1.

Discussion

At Yiwarralarlay 1, Delamere 3, Menngge-ya and Garnawala 1, evidence for painting activity does not begin until the late Holocene, and is concentrated especially at various times during the last 1400 years or so, in spite of evidence for earlier occupation of the sites. At Yiwarralarlay 1, Arndt (1962: 169) stated that Kulumput, a local Wardaman elder, claimed

the Lightning Brothers originally ‘camped’ on the Victoria River, where several neighbouring tribes were free to visit them. When the country and the people were divided between rival pastoral interests it was no longer practical for the Wardaman people to visit the Lightning Place. The Wardaman elders at Delamere Station decided that the Lightning Brothers could ‘camp’ at the Rain Place near the home-

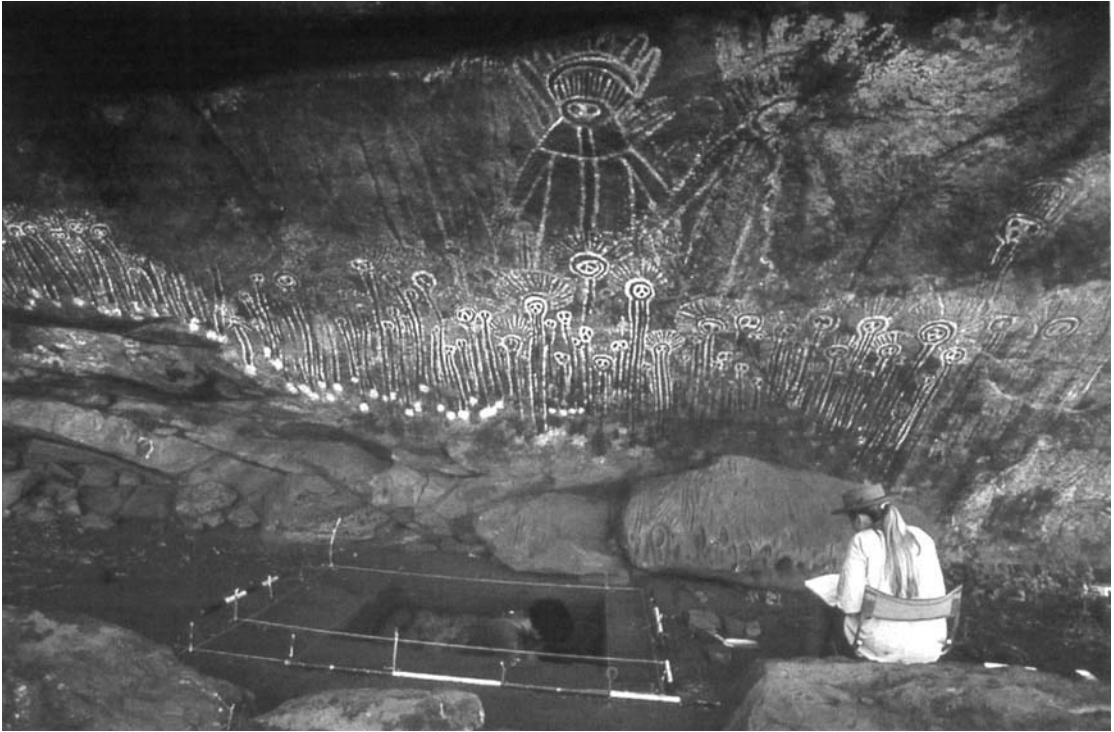


FIGURE 8. *Garnawala 1, showing djangural, yirmi-nyonong and the 1990 excavation.*

stead, so that they could be seen by the rising generation. A contemporary of Kulumput, Emu Jack, 'dreamed' (visualised) the design and did the painting. The task was delayed by station and tribal duties and was not finished until he was in bush-retirement prior to his death 'near the end of the Japanese war [World War 2, 1939–45]'.

Two points salient to the current discussions can be identified from the above passage and from the archaeological work recently undertaken at the site:

- 1 the paintings of the Lightning Brothers and other figures at Yiwarrlarlay 1 express local Dreaming beliefs; and
- 2 the identity of Yiwarrlarlay 1 as a Lightning Brothers place dates to the post-contact period, and was stimulated by changes in patterns of land tenure and access to tracts of land.

At Yiwarrlarlay 1, the major archaeological changes thus took place at the same time as widespread alterations in social conditions (including access to land) during proto-historical

times. The rock art at all sites investigated appears to date largely, if not entirely, to the last 1400 years or so. The appearance or intensification of painting activity during this time was accompanied by major increases in the deposition rates of stone artefacts and food debris in the excavated sites, which may indicate that these changes were broad in scope. Because of their systemic nature, we would argue that these changes signify alterations in social circumstances at this time. The fact that increases in stone artefacts at Menngge-ya preceded the major increase in ochre deposition rates may also indicate that socio-cultural changes were probably under way by the time rock painting became widespread. Given that today the rock art is closely linked with territorial concerns throughout Wardaman country, we therefore propose that:

- 1 rock art became more widespread in Wardaman country sometime during the late Holocene. We can trace back the beginnings of modern artistic expressions to this time;

- 2 the beginnings of this move probably related to a new system of land management initiated sometime around or shortly before 1400–900 years ago;
- 3 these changes indicate new strategies of territorial behaviour which, we argue, took place in response to population increases and/or changes in intensities of inter-personal relations.

Conclusion

Given the current position of rock paintings in Wardaman ontology, the appearance or intensification of rock painting activity c. 1400–900 years ago implies that there have been significant changes in systems of land tenure and, possibly, the Dreaming at that time. These include:

- 1 a change in *world view* (ontology), including ways of perceiving the land and the ‘Dreaming’; and/or
- 2 a change in the *practice* of existing beliefs. An example of this is the change in the location of the Lightning Brothers’ place during the early contact period that resulted from the cessation of access to the ‘original’ Lightning place; and/or
- 3 a change in the way the belief system was *expressed* (communicated). In this case, world views did not change, but people began to express them in rock painting, indicating a new way of expressing the land’s identity.

The paintings in each of the excavated sites today relate to the local Dreaming beings which give identity to the land. These identities also reflect current systems of land affiliation and land tenure. The rock art and its associated narrative tradition expresses people-land-Dreaming relations in such a way that the art and oral traditions mutually re-enforce the Law expressed in the Dreaming and in the land. The archaeological evidence indicates that, prior to 1400–900 years ago, the ‘Dreaming’ of the time was not as systematically expressed through rock painting as it is today. Because of the nature and recurrence of the archaeological

changes noted above, we would thus argue that broad, regional changes in the management and expression of territorial affairs took place during the late Holocene.

It is difficult at this stage to identify which of the three possible options enumerated above is or are likely to be correct. Nevertheless, other changes are also associated with those in rock painting, including increases in intensities of stone artefact deposition rates that may indicate increases in intensities of site use. The latter implies to us that the late Holocene may have witnessed a population explosion in northern Australia. David (1991) has argued for a similar phenomenon for southeastern Cape York Peninsula (to the northeast of Wardaman country), where he suggested that a late Holocene regionalization of rock art may reflect increases in the sizes of interacting populations, increases in conflict and a subsequent regionalization of social groups. This scenario may also be relevant to the present study.

Having said this, let us not forget that to Wardaman people the land, the sites and the ‘art’ which we are discussing are timeless and ever-present. They are expressions of events which are operationalized in the Dreaming. Our archaeological perceptions of these places should never undermine the fact that to others they may be timeless, Dreaming actualities. This acknowledgement is a fundamental aspect of our research in Wardaman country.

Acknowledgements. We would like to thank the many Wardaman people who showed us and allowed us to record and excavate some of their sites. Special thanks to the late Ruby Alison, Riley Birdun, July Blutchter, Daisy Gimin, Lily Gingina, Queenie Ngabijiji, Tarpot Ngamunagami, Elsie Raymond, Oliver Raymond, Barbara Raymond, Michael Raymond, Lindsay Raymond, and Tilley Raymond. The Dreaming stories presented here were recounted on-site by the above individuals, and this paper was read and approved for publication by them.

We also gratefully thank Francesca Merlan for commenting on aspects of an earlier draft of this paper and for permission to quote an unpublished report, the AIATSIS, the Australian Museum and the Australian Heritage Commission for funding the radiocarbon dates, and the Earthwatch Corps for helping us in the field.

References

- ARNDT, W. 1962. The interpretation of the Delamere lightning painting and rock engravings, *Oceania* 32: 163–77.
- ATTENBROW, V., B. DAVID & J. FLOOD. In press. Menngge-ya 1 and the origins of points: new data on the antiquity of points in the semi-arid zone of the Northern Territory, *Archaeology in Oceania*.
- DAVID, B. 1991. Fern Cave, rock art and social formations: rock art regionalisation and demographic models in southeastern Cape York Peninsula, *Archaeology in Oceania* 26: 41–57.
- DAVID, B., D. CHANT & J. FLOOD. 1992. Jalijbang 2 and the distribution of pecked faces in Australia, *Memoirs of the Queensland Museum* 32(1): 61–77.

- DAVID, B., I. MCNIVEN & J. FLOOD. 1991. Archaeological excavations at Yiwurrlarlay 1: site report, *Memoirs of the Queensland Museum* 30(3): 373–80.
- DAVID, B., I. MCNIVEN, J. FLOOD & R. FROST. 1990. Yiwurrlarlay 1: archaeological excavations at the Lightning Brothers site, Delamere station, Northern Territory, *Archaeology in Oceania* 25: 79–84.
- FROST, R., B. DAVID & J. FLOOD. 1992. Rock art in transition: discussing the interaction of visual forms and symbolic contents in Wardaman rock pictures, in M. Morwood & D.R. Hobbs (ed.), *Rock art and Ethnography*: 27–32. Melbourne: Australian Rock Art Research Association. Occasional AURA publication 8.
- LOURANDOS, H. 1983. Intensification: a late Pleistocene–Holocene archaeological sequence from southwestern Victoria, *Archaeology in Oceania* 15: 81–94.
1991. Palaeopolitics: resource intensification in Aboriginal Australia and Papua New Guinea, in T. Ingold, D. Riches & J. Woodburn (ed.), *Hunters and gatherers 1: history, evolution and social change*: 148–60. New York (NY): Berg.
- MADDOCK, K. 1982 *The Australian Aborigines: a portrait of their society*. Ringwood: Penguin.
- MCNIVEN, I., B. DAVID & J. FLOOD. 1992. Delamere 3: further excavations at Yiwurrlarlay (Lightning Brothers Site), Northern Territory, *Australian Aboriginal Studies* 1992(1): 67–73.
- MERLAN, F. 1989a. Survey of Aboriginal sites in the northwest of the Northern Territory. (Unpublished report to the Australian Heritage Commission, Canberra.)
- 1989b. The interpretive framework of Wardaman rock art: a preliminary report, *Australian Aboriginal Studies* 1989(2): 14–24.
- MULVANEY, D.J. 1975. *The prehistory of Australia*. Melbourne: Pelican.
- RIGSBY, B. 1981 Aboriginal people, land rights and wilderness on Cape York Peninsula, *Proceedings of the Royal Society of Queensland* 92: 1–10.
- STANNER, W.E.H. 1961 On Aboriginal religion IV: the design-plan of a riteless myth, *Oceania* 31(4): 233–58.
- TINDALE, N.B. 1974. *Aboriginal tribes of Australia*. Berkeley (CA): University of California Press.