CHAPTER ONE



ANTHROPOLOGICAL AND ARCHAEOLOGICAL APPROACHES TO AUSTRALIAN ROCK ART

Recent Australian rock art takes many visually stunning forms: the rayed, mouthless heads of the Wandjina heroes in the western Kimberleys, the delicate internal detail of 'x-ray' paintings in western Arnhem Land, the vibrant ochre and white of concentric circles and parallel lines in the Centre. In all three regions, paintings have been made within living memory. Yet rock art has been a feature of indigenous Australian cultures1 since the Pleistocene, more than 10,000 years ago, and its origins are probably as old as those of the rock art of huntergatherers in western Europe. While there are no modern hunter-gatherers in western Europe, communities whose economy is essentially one of hunting and gathering have in Australia continued to produce rock art to the present. During this immense period, neither rock art nor indigenous economies have remained static. Indeed, the population of Australia expanded from sparse and patchy settlements 40,000 or more years ago to cover the entire continent at densities which, except in eastern Australia, are often at least equal to those achieved by European colonists (Gale 1978:357, Jones 1980:108, Layton 1986a:43).

The part which rock art plays today, and has played in the past, in indigenous Australian communities is the subject of this book.

In writing about art, the minimum definition relied upon will be that art consists of deliberate communication through visual forms (Sutton 1988b: 4 also relies on this definition). More complex definitions, based upon aesthetic criteria, or the presence of many levels of meaning, may often be appropriate (see Layton 1981: 4-5), but this study is essentially one of messages expressed in durable forms which illuminate the achievements of indigenous Australian cultures.

How can these messages be understood by people not born and brought up in the cultural tradition that produced the art? An anthropologist who talks to painters,



The Wandjina Namarili, painted in 1929 at Langgi, western Kimberleys, and photographed in 1974 by Valda Blundell

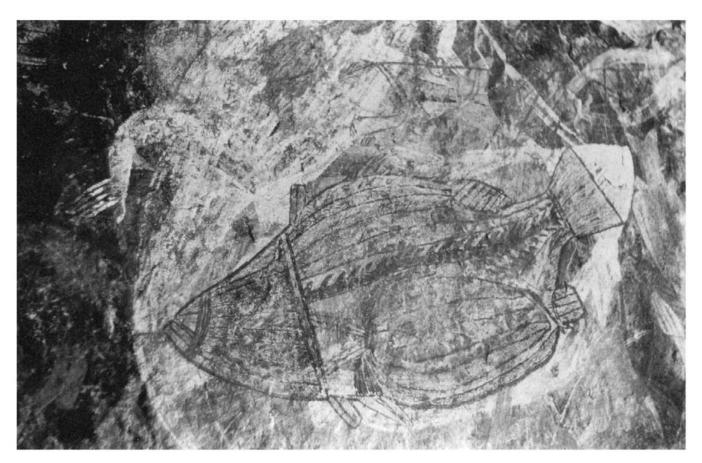
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or those who grew up when rock art was still being produced, can learn a great deal about that art's significance for those who made it and those for whom it was intended. While the anthropologist's understanding is limited by his or her status as someone brought up in an alien culture, their investigations can take a different direction to those of the archaeologist, who has only the figures on the rock to study. The archaeologist must investigate form, distribution and context, in the hope of explaining rock art as the product of past cultural traditions.

The purpose of this book is to bring together the work of anthropologists and archaeologists and show how each can illuminate the other. In this chapter, the methods used in the two disciplines are outlined. As archaeologists have sometimes thought that recent rock art is rare in Australia, I also review the evidence for continuity to the present or recent past. The following two chapters then describe anthropological research into recent rock art and its place in the indigenous way of life. Since rock art has survived in some regions but not others, Chapter Four proceeds to examine why this is so, and summarises the effect of colonial settlement during the last two hundred years. It will become clear that continuity or adaptation in indigenous traditions has been achieved against considerable odds. Cultural traditions are not a dead weight from the past, but are actively realised and transmitted. Chapter Five therefore analyses the concept of culture, the place of artists in their community and the importance of situating what people say about rock art in the context of their own beliefs and goals. Rock paintings are actively produced, and their form, content and location are an outward expression of cultural values.

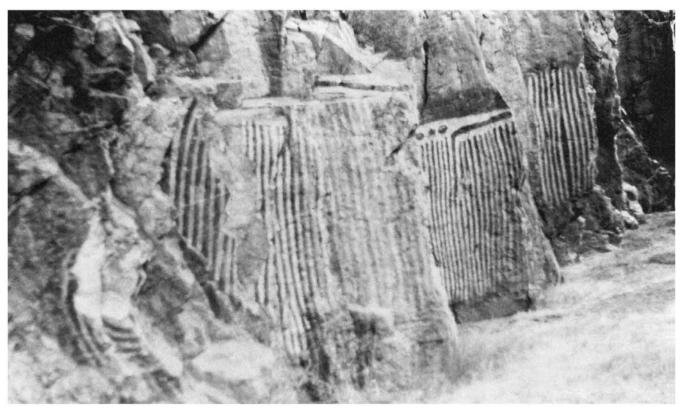
Chapter Six considers how what is known about the form and meaning of figures in recent rock art can help the archaeologist in the formal analysis of older art. Chapter Seven then reviews the evidence for the distribution of Australian rock art in time and space, and Chapter Eight offers a general theory to account for some aspects of the distribution patterns which emerge, in order to elucidate the history of Australian cultures and antecedents of their present form.

Rock paintings and engravings have three distinctive qualities: they are generally durable, they remain where the artist has placed them and, for those who can 'read' them, they are a source of visual information. Both positive and negative consequences follow from these qualities. On the positive side, rock art offers a good opportunity to study cultural processes through time, and the distribution of cultural artefacts in space. Whereas the stone tools classically studied by archaeologists are generally interpreted as evidence of humankind's adaptation to the natural environment, rock art seems to relate more unequivocally to the social realm. On the



X-ray painting of fish Barramundi, Lates calcifier or Namangol Ubirr, Kakadu National Park. (Courtesy AIATSIS)





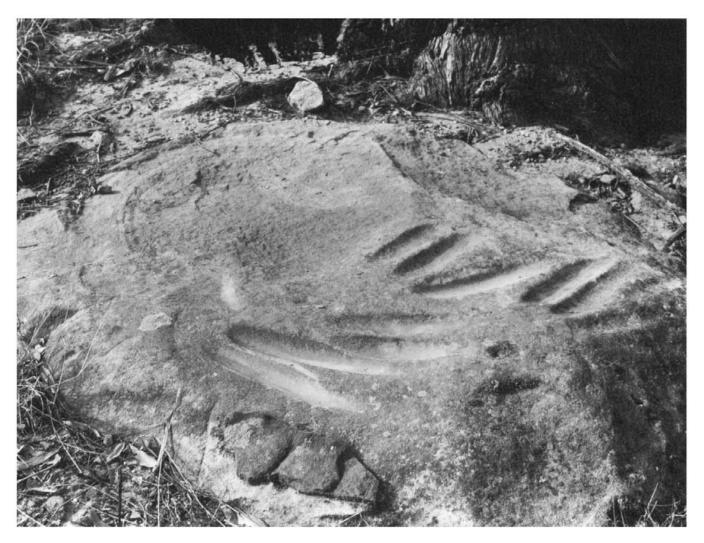
Paintings associated with witchetty grub ancestors, Underga ('Emily Gap'), Macdonnell Ranges. (Courtesy of Central Land Council and AIATSIS)

negative side, rock art is often hard to date, precisely because it is placed in conspicuous locations and not discarded with camp debris. To 'read' rock art in any detail requires knowledge of conventional codes according to which subjects are depicted and layers of meaning encoded. This limits the archaeologist's ability even to classify figures into motifs or types, let alone to decode meanings. Many questions that might be answered by talking to members of the community which produced the art appear unanswerable on archaeological evidence alone. Not surprisingly, it has been said that rock art promises more than it can give to the archaeologist (Clegg 1978a:30). Yet, as another archaeologist of art has commented, '(rock) art has maintained its latent suggestion of a ripping yarn a cut above the standard bone and stone story' (Officer 1986: 127).

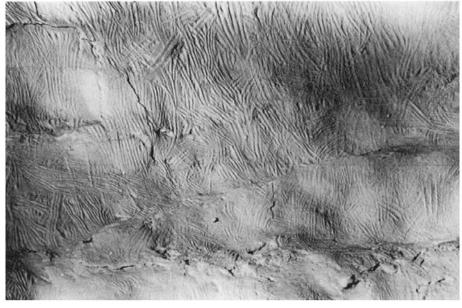
Anthropologists may learn about the contemporary art of other cultures, but how can one tell that visual forms composed thousands of years ago were intended to communicate ideas or aesthetic values? In this book it will be assumed that humanly made, repeated patterns or motifs, which are not demonstrably a by-product of technical processes, have been constructed to encode information of some kind. The fluted designs of Koonalda, perhaps 20,000 years old, have no counterpart in recent indigenous cultures and may even have been accidentally produced merely by drawing fingers across the soft surface of the cave wall. These cannot reliably be

classed as art, according to the above definition. Axegrinding grooves, which result from sharpening stone axes on a rock pavement, may convey information about people's behaviour, but are not produced with that intent. Hollows with the form of axe-grinding grooves are therefore, by inference, not art. More problematic is the conventional nature of the ways in which forms that are recognisably art encode visual information. Even if we think we can recognise people or animals, stars or boomerangs in rock art, where no-one can explain what they mean, they appear opaque to further interpretation. (See illustrations p. 9, p. 13, p. 14.) To what extent can we rely on living indigenous people to explicate ancient forms? Any attempt to answer this question depends on combining archaeological with anthropological research methods. An essential feature of social life, which both anthropologists and archaeologists must take into account, is that it is lived through time. People live, moreover, in a cultural environment full of objects bearing information; some transient, some durable. These meanings are constituted, and transformed, through cultural interaction. Each culture, each time and place, has its own conventions. In attempting to 'read the past' through meaningfully constituted objects (Hodder 1986; cf. Gould 1980: 115), archaeological and anthropological techniques converge. Both attempt to elucidate the meanings current in other cultures, located in times or places different to the researcher's own community.

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Axe-grinding grooves. (Photo: A. Rosenfeld)



Fluted figures, Koonalda cave, Nullarbor Plain. (Courtesy AIATSIS)

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A CONVERGENCE OF METHOD

Two models may help to represent the relationship between archaeological and anthropological research into cultural meanings. Both are drawn from linguistics.

One is Saussure's model of the plant stem (Saussure 1959: 87-88) which he proposed to explain the difference, as he saw it, between two aspects of the analysis of language. Saussure compared synchronic analysis (study of language at one moment in time) to examining a transverse slice through the plant stem at one point on its length. This reveals the relationships between fibres in the stem at that moment. A longitudinal section through the stem would, on the other hand, show the development of a particular fibre from its starting point in the roots to its termination in a leaf. This is Saussure's image of diachronic analysis, or the history of language, which he regarded as a distinct branch of linguistics. Saussure's theory of language has been criticised on two counts. These lead to the second model. Saussure writes firstly as if a language existed in an idealist, Platonic sense, outside the heads of those who speak it. Some later linguists have taken the view that it is speech which is real, and language merely an abstraction. Those who take this view contend, secondly, that Saussure's opposition between synchronic and diachronic analysis is artificial, since it is through the temporal process of speaking that language is changed (see Giddens 1979).

I consider Saussure's analogy to be a helpful one in the present case, since anthropological analysis readily investigates relationships between patterns of behaviour and elements of material culture at the moment of time the researcher is in the field, but-particularly in a nonliterate tradition-it is difficult if not impossible for the anthropologist to investigate the history of elements of culture. Archaeologists, on the other hand, find it relatively difficult to investigate relationships between elements of culture at any precise moment, becauseagain, particularly in a non-literate culture-much of what was happening at the point in time represented by a particular level in an excavation has not been preserved. Much of what is missing, moreover, consists of conventional cultural codes which are relatively unpredictable. Even Hodder, who has attached considerable importance to the archaeological interpretation of symbolic behaviour, accepts this limitation (e.g. Hodder 1982: 184-6, 217). While archaeologists are interested in reconstructing contemporaneous elements of a cultural tradition, the degree of resolution they can achieve is less than that available to anthropologists. On the other hand, archaeologists have a tremendous advantage over anthropologists in their ability to study change in elements of material culture over time: an excellent example is the study of the development of stone tool manufacture in Australia which has been shown to change in such a way as to derive an increasingly longer cutting edge from a given weight of stone (Lorblanchet and Jones 1979). Rock art motifs can also be shown to change over time.

PROCEDURES TYPICALLY FOLLOWED BY ANTHROPOLOGISTS WHEN INVESTIGATING AUSTRALIAN ROCK ART

Locate figures at one or more sites

Ask what is their meaning, what technique used, why are they done?

Assess reliability of informant, kinship status of informant re site ownership

Document other activities which take place at site, location of site in clan territory, political functions of choosing and maintaining site

Investigate connection between rock art and other media of visual expression, the cultural function of style choice, significance of relative size of figures and their location in site

Discover relevance of contextual information to reading visual forms

Infer grammar of visual forms: how are they constructed and what rules regulate their production?

The second model derives from post-structuralist theory, and relates to the criticisms, outlined in the previous paragraph, of Saussure's approach. This is the model of performance and text, taken from Ricoeur. Discourse, or the use of speech, demands 'competence' if the speaker is to communicate effectively (Ricoeur 1979: 74, cf. Searle 1969). In living speech, discourse is a fleeting performance, but those present can hope, by interaction with the speaker, to discover his intentions. Ostensive reference can be made to speaker and listener's shared environment. If listeners respond inappropriately, the speaker can try again. Anthropologists can learn about other cultures by this means. Once speech is written down, however, it becomes text. The immediate reciprocity between the speaker and the listener who then responds is lost (87). The reader of a text only has

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his own world of experience to refer to, but he must search the text for clues to the 'possible world' from which the author came (98). Archaeologists depend on such methods to analyse past events. Ricoeur contends that there are probable and improbable interpretations of that 'world', not an infinite range of possibilities, although it will always be possible to construe the meaning of historical events in several ways (91-3). In this analogy social anthropologists study cultural behaviour as performances, while archaeologists study texts created by past behaviour. Rock paintings and engravings once made become texts. Godden compares the anthropological and archaeological study of rock art in Australia to the difference between the kind of information a person might provide on why he is building a house, and the information that can be derived from the house itself as to how the builder's society (or culture) uses space (Godden 1982: 7). This analogy is apt to the approach outlined here, providing the term culture is understood to refer to an intersubjective construct.

What questions have anthropologists and archaeologists typically asked of Australian rock art?

Anthropological questions

Most commonly, anthropologists have enquired about the meaning of individual figures, regarding as adequate answers the information that named legendary heroes are depicted, or species of animal, ceremonial objects or specific events. Some have recorded the preparation of pigment and the way it is applied (e.g. Rose 1942, Crawford 1968). The motive for painting has been shown to range from performing increase rites (Kaberry 1936, Playford 1960) to wanting to depict a specific hunting success after it took place (Mountford 1955, Turner 1973). Some anthropologists have considered whether recent population movements have affected the reliability of such information (Berndt and Berndt 1970), or noted the kinship status of the informant in relation to ownership of the site as an index of the right or ability to impart information (Meggitt 1955, Turner 1973). Spencer and Gillen (1899) investigated ritual activities which took place at rock art sites, while Schulz (1956) documented the location of rock art sites in clan territories, and others have considered the political functions of maintaining art sites (Blundell 1982, Blundell and Layton 1978, Layton 1985, Vinnicombe n.d.). Tindale (1926: 117) discussed the connection between rock painting and other media of visual expression, a theme more recently taken up by Munn (1973) and Taylor (1987). Turner (1973) questions whether art styles vary in relation to differences in other aspects of cultural organisation. Maddock argues that the relative size and position of figures on the rock surface may be influenced by their cultural significance (Maddock 1970).



Horse seen by the artist, painted to show others what the animal looked like, Bickerton Island. (Photo: D. Turner)

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Recent research has looked more closely at the context of the production of art, regarding culture as a generative system the rules of which govern artistic activity and the indigenous interpretation of designs. Nancy Munn (1973) demonstrates the relationship between visual forms and religious iconography among the Warlpiri, and variations in the form and interpretation of motifs according to the context in which they were produced. She shows how designs with specific meanings are produced by combining simpler elements, and how the designs in women's ritual were often conceived in dreams. Luke Taylor (1986) demonstrates continuity between rock and bark painting at Oenpelli, and documents the growth of schools of bark painters. He discusses who should or does use particular motifs, the sanctions regulating such activity and the effects of European advisors' comments on the content of paintings. Like Munn, Taylor exemplifies the way in which art may provide visual metaphors for concepts of religious philosophy. He also shows how different classes of subject are associated with different styles of depiction. Similar themes are pursued by Howard Morphy, although not in relation to rock art (Morphy 1977, 1984).

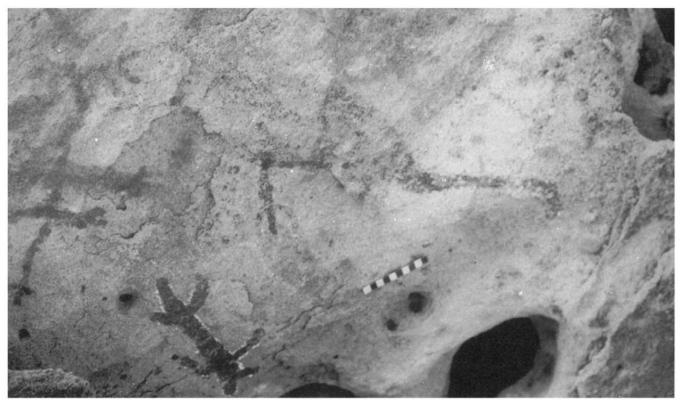
These various approaches are summarised in the accompanying chart (see above). Anthropological studies of Australian rock art have not, as yet, sought to present a general model for the role of rock art in indigenous cultures.

Archaeological research

More archaeological than anthropological research has been carried out on Australian rock art, and archaeologists have, at least in some cases, been more reflective about their methodology than some anthropologists. Archaeological analysis proceeds from identifying rock art sites and describing their contents to examining variation in site content in space and time and, finally, to proposing explanations for such variability in time and space. The cultural meaning of figures and places, so important to anthropological research, cannot be readily investigated by archaeologists, who are more concerned with quantifiable distributions in time and space. The usefulness of ethnography to archaeologists has been limited by its often fragmentary nature.

Almost universally the first phase of analysis consists of identifying the assemblage of figures at a site, recording their shape and colour in words, by photography or tracing,² counting the number of figures and deducing the technique by which they were made. Often the dimensions of figures are also supplied. Figures are then categorised into motifs, a step which was at one time taken relatively unreflectively, but which has been subjected to increasingly critical study (Brayshaw 1977, Clegg 1983a, Forbes 1983, Maynard 1977a, Officer 1984).

Once motif types have been derived a number of further steps can be taken, although by no means all have



Photograph of paintings from Endaen shelter, Stanley Island, Princess Charlotte Bay. Note that while tracing records details are not clearly seen in the photograph, this technique is inappropriate where the rock surface is fragile or where the

cultural significance of the site precludes entry, or forbids touching the rock surface. Compare this photograph with the tracing on p. 78. (Photo: M. Lorblanchet)

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PROCEDURES TYPICALLY FOLLOWED BY ARCHAEOLOGISTS WHEN INVESTIGATING AUSTRALIAN ROCK ART

Locate figures

Within site

Record form and colour; measure dimensions; deduce technique

Categorise into motifs

Infer representational quality (sometimes); count motif frequencies; seek correlations between technique, motif, apparent age; identify the same motif in different size ranges; plot the distribution of figures on the panel at the site

Group motifs according to style



Between sites

Variation in time

Establishing age by means of: Plot distribution of sites Carbon 14, calcrete deposits, cation ratios. Plot distribution of sites in landscape. Distinguish major and

Date start of site occupation, site abandonment.

Look for depiction of extinct

species. debris.

Document relative weathering, Map distribution of

superimpositioning. Seek correlations between:

(a) Change in content (spp. depicted, technology).

(b) Usage in associated habitation debris.

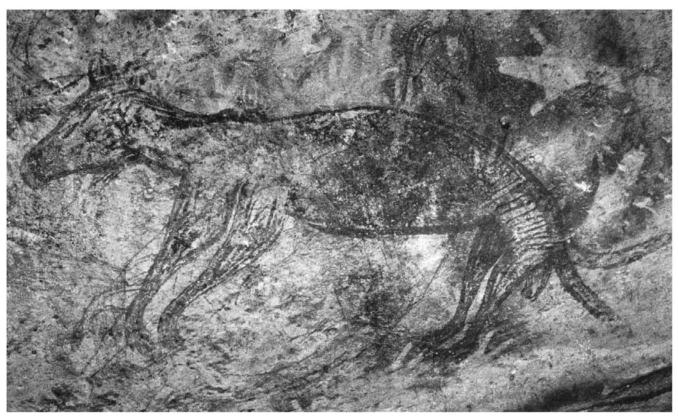
(c) Change in style.

Variation in space

Plot distribution of sites in landscape. Distinguish major and minor art sites. Seek correlations with ecology and habitation debris.

Map distribution of motifs and styles between sites.





Thylacine (*Thylacinus cynocephalus*), an extinct marsupial. Narbarlek, western Arnhem Land. (Photo: D. Lewis)

been taken by every researcher. The number of figures falling within each motif type is generally calculated, and correlations between motif and technique, colour and location sometimes sought (e.g. Morwood 1984). The representational quality of motifs can be assessed. Commonly this takes the form of distinguishing between 'representational' and 'non-representational' motifs (e.g. Clegg 1983a: 217, Forbes 1983: 206). The attribution of specific representational content to motifs is the subject of debate. Some authors are willing to take this step (e.g. Clegg 1978b, Lewis 1986, McCarthy 1946, Murray and Chaloupka 1984), while others caution against it (e.g. Clegg 1978a, Maynard 1979). Where similar forms seem to be present in two or more distinct size or shape ranges, this may be construed as representing a species difference (e.g. living versus supposed extinct, giant species: Basedow 1914, Tindale 1972: 241), or as signifying different cultural constructs (e.g. culture hero versus ordinary human: McCarthy 1946, Sim 1969, L-J. Smith 1983: 93-4).

Variations in technique may be explained in chronological terms (e.g. McCarthy 1962), or as adaptations to the nature of the rock surface (e.g. Lewis and McCausland 1987, Morwood 1976, Walsh 1983).

Other sources of information about the site obtained by excavation (the age of occupation, the type of tools used by the occupants and their diet) may be related to the art. Motifs can themselves be grouped into styles, on the basis of their regular association at a number of sites (Edwards 1966), or their supposed common motivation in a mode of representation (Maynard 1979). Plotting the geographical distribution of sites exhibiting the same style will then yield art regions (Maynard 1979, McBryde 1974).

Variation in space between art sites which are assumed to belong to a common cultural tradition has been explored at a number of levels. 'Major' and 'minor' sites have been distinguished on the basis of the number of figures present (Morwood 1980, M. Smith 1980). The differential distribution of motifs or styles between sites has been interpreted as evidence of a differentiation of site functions (Clegg 1978a, Officer 1984, Morwood 1984a, Rosenfeld 1982), or as a reflection of ecological variation (e.g. the preponderance of marine subjects at coastal sites, McMah 1965). Conversely, if a species is represented out of its natural range, a ritual motivation has been hypothesised (Bindon 1976: 74, Clegg 1971). The presence or absence of habitation debris at art sites has been construed as indicative of the art's cultural context (Morwood and Godwin 1982, Nobbs 1978, Vinnicombe 1980 and 1984), as has proximity to water (Morwood and Godwin op. cit., Nobbs 1984).

Variation in time, although basic to archaeological analysis, has proved difficult to quantify in Australian rock art studies. Paintings do not survive well once

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buried. Rock art is not discarded like waste flakes, used tools or food debris. On the contrary, the artists have often (perversely, from the archaeologist's point of view) placed paintings and engravings in locations where they remain visible, well above the living floor. Fortunately direct carbon 14 dates for buried engravings are accumulating (e.g. Mulvaney 1969: 176, 296, Morwood 1978: 26, Rosenfeld 1981: 30-4, Lorblanchet 1988). New techniques for dating calcrete deposits (Dragovich 1984a) and desert varnish (Nobbs and Dorn 1988) have provided other ways of obtaining absolute dates. Indirect evidence has been derived by dating the start of site occupation which, it is argued, provides the greatest possible age for paintings or engravings found at the site (e.g. Beaton 1985, Chaloupka 1984, Flood 1976). The depiction of extinct species, if correctly identified, allows inferences about the approximate age of figures, as the debate about the depiction of thylacines in northern Australia illustrates (Wright 1972, Lewis 1977, Clegg 1978b, Murray and Chaloupka 1984, Lewis 1986).

There are a number of approaches to relative dating, all of which are imprecise. McCarthy relied extensively on superpositioning to derive sequences of 'style' and colour preference (e.g. McCarthy 1961, 1962), but both the reliability of judgements about superpositioning and their relevance to chronology have been questioned (Bindon 1976: 86-9, Clegg 1978a: 37, Lewis 1988: 13, 41, Sim 1969: 171). The use of degrees of patination or weathering as a guide to relative age is also suspect (Dragovich 1984b, Forbes 1983). Officer (1984) has used estimates of weathering rates as an approximate guide to the maximum possible age for rock paintings in the Sydney-Hawkesbury area, while Flood (1976) has suggested the scarcity of rock art sites on the Southern Tablelands of New South Wales is associated with the recent introduction of rock art to the area.

Explanations for variability through time are of two general types. One type postulates that Aboriginal rock art was in a general sense becoming more sophisticated in its representational skills. This approach, exemplified by Maynard (1979), will be discussed below. The other class of explanations rests on functional, or adaptationist, assumptions. If the form and distribution of rock art at any time is explicable in terms of its cultural functions, then change in form or content must relate to a change in function. Evidence for such hypotheses has been sought in changes in associated habitation debris (Morwood 1981) and changes in the subject matter of the art itself (Lewis 1988). Alternatively, if the subject matter of art is held merely to reflect local ecological conditions, then change in the ecology will bring about changes in the content of the art (Chaloupka 1984).

Several archaeologists have devised theories to account for the evolution and distribution of rock art throughout Australia. Of these the most recent is Maynard's (Maynard 1979; see also McCarthy 1967 and Davidson 1936); Maynard's concise and clearly-argued theory forms the starting point for much of the analysis in this book.

Integration of archaeological and anthropological approaches?

A number of archaeologists studying Australian rock art have found it useful to draw upon anthropological evidence. Such material has been used in two ways.

Where early ethnographic accounts exist in areas subsequently devastated by European colonisation, it has sometimes been inferred that art studied by the archaeologist was created within the ethnographically documented culture. Elkin, for instance, equates figures from the Sydney—Hawkesbury area depicting humans holding



'Mutilated' hand stencil, central Queensland Highlands. (Photo: M. Morwood)