INTRODUCTION

This monograph derives from doctoral research undertaken at the Australian National University, completed in 1994. This work focused on the prehistoric rock art of the Sydney Basin, with particular focus on placing this in its social context. The art in this region occurs as two quite separate media in different physical locations. Engraving (or petroglyph) sites are found on open sandstone platform while in rock shelter locations the art is predominantly pigment (pictograph) art – which has been drawn, painted and stencilled. The art is generally described as being of the Simple Figurative Style (after Maynard 1977). The aim of the thesis was to explore the sources of stylistic variability in the region’s two art media. Diachronic and synchronic variation was investigated, as were the effects of medium and site context. The interrelatedness of art and archaeological evidence was also considered, as was the effect of linguistic boundaries across the region. The contemporaneity of art and other archaeological evidence in shelter sites was explored as a means of testing assumptions about the age of the art. Some direct dating of charcoal motifs was also undertaken. This work was also important for developing models about how the two art components may have functioned across this region. A regional model founded in Information Exchange Theory was proposed.

Two underlying assumptions directed this research. These were, that;

1) the majority of the art production coincides with the archaeologically most visible period of late Holocene occupation, known as the Bondaian. Most of it, therefore, is younger than c.5,000 years old. Art was produced up until European contact, but production ceased at or soon thereafter; and,

2) the two art components were practiced contemporaneously across the region.

The Sydney Basin is defined geologically and the study area for this research was restricted to the Hawkesbury sandstone formation (Figure 1.1). The homogeneity of the sandstone medium across this formation means that the region’s boundaries can be defined objectively, if arbitrarily from a cultural perspective.

For this research, ‘style’ was defined as the particular way of doing or producing material culture which signals the activity of a particular group of people who distinguish themselves from other, similarly constituted groups. The preferred application of this definition was that used by advocates of information exchange theory whereby style is ‘that part of the formal variability in material culture that can be related to the participation of artefacts in the processes of information exchange’ (Wobst 1977:321). Style is non-verbal communication which negotiates identity (Wiessner 1990:107).

It is generally recognised that hunter-gatherer behaviour is regionally embedded (Wobst 1983:222). The rock art from the Sydney Basin is recognised as being a distinctive regional style. What makes it distinctive and what distinguishes it from other regional styles has been addressed previously (e.g. Franklin 2004). The apparent variations within this region and possible causes for these was the focus of this research. However, the very presence of this regional style and the fact that it has a recognisable extent is of interest.
What was it about the socio-political culture in the Sydney Basin that led to the proliferation of artistic behaviour? Was the region so resource rich, that the proliferation of artistic activity signals an extraordinary amount of leisure time (Jones 1977)? Was its resource richness the cause of an increased population making it necessary to mediate social interaction across this area, particularly in the late Holocene, post sea-level rise? Why is this regional rock art style an ‘island’ surrounded by a comparative artistic vacuum? Does this geographically extensive and yet relatively homogeneous art body demonstrate the widespread operation of social mechanisms particularly social identity signalling behaviour?

The Sydney region has a long history of archaeological practice and there is art and archaeological evidence available at many scales of analysis (e.g. Attenbrow 2002, 2004; Hiscock 2003; McCarthy 1979; McMah 1965). There is a proliferation of material with which one can address regional questions (Conkey 1987, Wobst 1983). Small scaled intra and inter site analyses
and more detailed local catchment patterns (e.g. Attenbrow 1987, 2004; Attenbrow and Negerevich 1984; McDonald 1986a, 1988a; Officer 1984; Smith 1983) and a proliferation of cultural heritage management project on Sydney’s Cumberland Plain in the decade since this dissertation was completed (e.g. Bonhomme Craib and Associates 1999; McDonald and Rich 1993; JMcD CHM 2005a, 2005b, 2006) provide evidence for localised variability, and complement the approach used in this research, which was generally relatively coarse grained and aimed at identifying broader patterning. By identifying localised variability regional patterning was able to be quantified and better understood. Environmental evidence for the Sydney region throughout the Holocene indicates that conditions were fertile and relatively stable. The ethnohistoric literature suggests that the population densities at contact were high. Archaeological evidence suggests these have probably been high throughout the period that most of the art was being produced, i.e. for the last 3,000 years.

It is not known how rock art functioned across this region at European contact. It is known that stylistic behaviours demonstrating social group affiliation was evident amongst the populations in the region at contact. Many of these social practices have not survived in the archaeological record - body scarification and/or painting, tooth avulsion, shield designs and other geographically specific items of (organic) material culture. The presence of these ‘portable’ forms of stylistic behaviour in the region at contact demonstrate how important group identifying behaviour probably was – which is of course equally clear in the region’s rock art.

**Previous work on the Sydney rock art – the research context**

While the presence of rock art in the Sydney region was recorded by Governor Phillip soon after the First Fleet arrived in 1788, it was another hundred years before systematic recording of the art began. There is no record of questions being asked during the contact period of the Sydney inhabitants either about the function or meaning of the art that was observed. This has resulted in a regional art body without anthropological or social context: one for which the meaning cannot be interpreted except by archaeological methods. The first major publication of rock art recording the Sydney region was by the surveyor W.D. Campbell (1899), and in the first half of the twentieth century more intensive art recording activity was undertaken, with Fred McCarthy being the most prolific publisher (see bibliography) over a forty year period. Ian Sim was another prolific Sydney rock art recorder, as was John Lough. Interpretations of the Sydney engravings throughout this time were based loosely on borrowed ethnographic material from other regions (Elkin 1949; McCarthy 1956, 1961). No systematic analysis of this body of art was undertaken until Lesley Maynard (then McMh) undertook her Honours research in the Sydney region (McMah 1965). This was the first quantitative analysis of any rock art province in Australia, with 285 engraving sites being analysed with the aim ‘(to) produce, first a typology of the engravings, and second, a spatial distribution of traits, based on the typology’ (McMah 1965:7).

A number of Sydney University Bachelor’s degree projects, under the supervision of John Clegg, have been directed at more specific stylistic questions. Tania Konecný’s (1981) work looked at both engraved and pigment art. The aim of this research was to investigate the possibility of aggregation locales (viz. Conkey 1980) within the Sydney area. Laurajane Smith’s work was concerned with identifying archaeological patterning across ethnographically reported tribal boundaries (Smith 1983). Her analysis focused on the Mangrove Creek/Macdonald River area and involved both art components. Kelvin Officer’s (1984 ANU) research explored the art south of the Georges River (SPG 1983). The main aim of this research was to explore and describe the formal variability at a local scale. Natalie Franklin’s (1984) work explored Maynard’s (1976) definition of the Simple Figurative styles, and thus compared the Sydney region with regional assemblages from Port Hedland, Cobar, south-east Cape York and the Grampians. Subsequent to this doctoral research there have been several other rock art projects in the region. Samantha Higgs (2003) looked at the distribution and morphology of ‘culture heroes’ in the engraved art; while the art of the Illawarra (at the south extent of the region) is the subject of current doctoral research (Julie
Dibden, in prep.). Another ANU project focussed on the geochemical characterisation of pigment samples from the southern Woronora plateau rock art (Ford 2006); while doctoral research on religious sites in the Blue Mountains has also been completed (Kelleher 2003). The ongoing investigation of rock art in the Blue Mountains World Heritage area (Taçon et al. 2005, 2006) is an exciting rock art project that has also commenced more recently. This work has demonstrated that the Darkung pigment style continues further west into the Blue Mountains than was previously known.

The Sydney Basin Rock Art Project (SRAP), funded by the NSW National Parks and Wildlife Service and the National Estate Grant Project (McDonald 1985a, 1987, 1990a) formed the basis for the regional recording achieved by this research, and indeed created the impetus for this research project, which commenced in 1987. Other than this management project, little art research in the region has been achieved through cultural heritage management work. This is partly because of overriding time constraints and partly because the majority of urban development in the Sydney region has occurred on the shale-based Cumberland Plain (see Figure 1.1) where there is no rock art. In several instances, consultancy projects have achieved a research oriented outcome with rock art sites (McDonald and Smith 1984, McDonald 1988a). Several specific management plans have also been prepared for shelter art sites: Blackfella’s Hands Cave (JMcD CHM 1999) and Whale Cave (JMcD CHM 2002a).

Sampling issues
The data used throughout this research were based on archival materials lodged in the Sites Register of the NSW National Parks and Wildlife Service (now known as AHIMS in the NSW Department of Environment and Climate Change). These records were initially generated both by early publications (particularly by Campbell, McCarthy and Sim) and updated by rock art management effort. The data set was audited during the initial stage of the SRAP (McDonald 1985a) and groundtruthed in the subsequent fieldwork stages (Stages II and III: McDonald 1987, 1990a). The samples comprise either the art assemblages of sites which had been recorded in sufficient detail (i.e. their entire assemblages had been drawn) by other recorders, or those which have been recorded by me using the classification system devised for the Rock Art Project. These are not random samples: they have inherent biases and inconsistencies.

The samples used for these analyses comprised 717 engraving sites and 546 shelter art sites. These represented 39.5% and 32.7% (respectively) of the known sites in the region at that time. Of the samples used, 167 shelter art sites (30.6%) and 61 engraving sites (8.5%) were recorded by me. Many biases in this sample were identified early in the Rock Art Project (McDonald 1987, 1990a) and these were addressed by subsequent Stage’s fieldwork, where the reliability of the recordings made by previous recorders was assessed.

Most of the problems inherent in these samples result from the way that the NPWS Sites Register accrued over time, and particularly during its formative years. The unreliability of many site locations is one problem which can often only be resolved by field relocation. Variation in recorder competence and consistency over time is another problem. Also, over the years, the definition of a site has undergone considerable change. What McCarthy described as a ‘group’ in the 1940’s may have stretched over several kilometres of ridgeline - and today is described as ten sites.

More than twelve weeks of rock art recording fieldwork was completed in the course of this research to record sites and to assess these problems. A detailed description of procedures used can be found elsewhere (McDonald 1990b). Only the drawn recordings of other recorders were
used here: written descriptions alone were excluded. This was justified on the basis of the Stage II results (McDonald 1987) which demonstrated that written descriptions often underestimated assemblage size by as much as 400%.

The unsystematic way that the samples were originally collected is one problem that could not be addressed. Only a relatively small number of sites has resulted from the few (small) areas systematically surveyed (e.g. Attenbrow 1981, 1987; Attenbrow and Negerevich 1981; Gunn 1979; Sefton 1988; McDonald 1986a, 1988a; McDonald and Smith 1984). These biases cannot be quantified and this is a recognised shortfall in the data base.

The analysis – rock art as stylistic messaging

The pigment and engraved art components appear to have functioned in different ways and to have presented different opportunities for projecting personal and group identity. The social context of the art’s production is considered to account for these differences. Based on the precepts of Information Exchange Theory (Wobst 1977), it is anticipated that the art which was viewed by a larger proportion of the population and which is situated in a public context, would be expected to contain the best potential for stylistic messaging of an emblemic kind. Art produced in a domestic context appears to have allowed the opportunity for individual stylistic expressions (Wiessner 1990), resulting in the development of localised stylistic trends. The shelter art sites most of which have concomitant evidence for occupation are located within valley systems. These are demonstrably also living sites. All members of a local territorial group (men, women and children) will have used these sites. Local groups operating in their own territories are least likely to be communicating a politically motivated need for large scale group cohesion. The art in this context, thus, while not defining the locations of boundaries per se, contains the best potential for stylistic bounding information.

Most of the region’s large engraving sites are on ridgelines, away from the economic resource areas and often not in the centre of any particular group’s foraging territory (see also Layton 1989, 1992b). They are often on access routes around the region. They are rarely associated with other forms of occupation evidence (although notably, few such locations have been subject to subsurface investigation). It has been argued that the engraving sites in Sydney fulfilled a ritual function (Elkin 1949, McCarthy 1956, 1959a), and McCarthy (1961) also suggested that shelter art sites fulfilled a similar role. This interpretation was based on the presence of particular motifs at art sites, and by ethnographic analogy with Bora ceremonies from the north coast of NSW¹. While there is no ethnographic evidence for this interpretation, it is suggested that engraving sites may have fulfilled a regional bonding function and provided the opportunity for large scale group cohesion. This may in part have been achieved by a ritual function.

There is regional evidence for gender exclusivity in economic and ritual behaviour and for inter-group participation in some ceremonies, particularly for male initiation. If any particular group, i.e. men or women, used these sites for ceremonial purposes, it would be expected that these sites would be viewed by particular and more limited section of the population. The audience was restricted, not public. Stylistic patterning with this art form then should be clinal within and between social units. Inter-group aggregation for the purposes of ceremony would similarly have resulted in a mixing of social messages. Given that these sites are often on recorded access routes, it is possible that generic social group identity messaging was further reinforced in these locations. Such a usage would contribute to a homogenizing of boundary information in this component.

¹It is notable that none of the Sydney ethnohistoric or later ethnographic literature describes local initiation ceremonies including the production of rock art (see below).