Introduction

The earth can be seen as a living record of the past; she bears on her ‘body’ the evidence of what has happened. (Lewis & Rose 1988:46)

We might profitably explore the contours of our material lifeworld and its recursive shaping of human experience. (Meskell 2005a:2)

The Nepean River is a significant drainage system in the Sydney Basin. It rises in a spring on a hillslope in the Southern Highlands where it commences a long, northerly traverse through the sandstone of the southern parts of the Woronora Plateau, becoming the Hawkesbury River along the western edge of the Cumberland Plain, and finally joining the Pacific Ocean at Broken Bay, north of Sydney. Before leaving the plateau, the Nepean captures the water from the Avon, Cordeaux and Cataract rivers. It is this sandstone country in the Upper Nepean catchment that is my study area. It has an extensive range of rock shelters and open sandstone platforms, which contain rock art and a suite of other types of rock marks. The land and stone through which these waters flow, and the human markings on the land, are the material objects of this research.

This monograph explores the materiality of these rock markings, and the manner in which they are embedded in the land, so as to explore change and transformation in social geography. In a seminal study, which integrates landscape and rock art, Bradley (1991:80) proposes that rock art is unique in respect of its link with the landscape: ‘quite simply it had been applied to natural surfaces, and its study necessarily involve[s] an archaeology of place’. Similarly, Rosenfeld (1992:10) argues:

The integration of motifs within the natural morphology of … sites clearly marks location as a cultural construct in which meanings of graphic units cannot be divorced from their spatial patterning. The rock is more than a blank canvas on which artists work – it is an integral component of the artistic system of meanings. The appropriation of the natural into the cultural may also operate at the level of graphic construction itself.

In Australia and its broader region, the analysis of location and rock art variability at both a broad landscape (e.g. Taçon 1989:112; Frederick 1997; Ross 1997; David 2002; Lee 2002) and micro-topographic scale (e.g. Rosenfeld 1991:137; David et al. 1999:20; Taçon 1999:47; Wilson 1999:95; Taçon & Ouzman 2004) has proved to be particularly rewarding for identifying spatial and chronological patterning and providing a firm basis for nuanced archaeological interpretations and narratives. The research conducted here is similarly framed within a landscape analysis and explores the nexus between imagery, other marks and location.
For conceptual and interpretive guidance, the research is situated within a theoretical framework that emphasises materiality, embodied practice and lived experience; it is this focus that has provided a basis for constructing an informing context. In particular, it has allowed a means of overcoming dualist concepts, which otherwise may limit understanding. Recently, practitioners from a wide range of disciplines endeavouring to understand either land and ecosystems (Head 2008), landscape (Thomas 2008), material culture generally (Boast 1997), or broader themes that reside at the heart of archaeology, such as time, culture and identity (Thomas 1996), have begun to respond to philosophical concerns with the post-Enlightenment conceptual separation between notions such as culture/nature, subject/object, mind/body, and so on. These conceptual separations are situated within a modern mode of thought, and a concern is now expressed regarding the assumption that an essential distinction exists between the natural world and the material things in it on the one hand, and human beings on the other (Thomas 1996:x; Boast 1997:181). These dichotomies may limit our appreciation of archaeological objects as they impose a modern or western understanding of the past; the people whose past we study may not ‘have constructed their worlds using the same concepts or habits of mind as ourselves’ (Thomas 1996:x, 11).

Modernist thinking separates humans from the earth. However, recent ethnographic studies emphasise the relational character of existence: that social life is lived out through the material world and that it is in the context of everyday life that humans become aware of themselves and their surroundings (Thomas 1996:12, 55, 234). It is via human lived experience that time, culture and identity emerge (Thomas 1996:235). Thomas (2008:304–305) argues:

that if we wish to eschew the mind-body dichotomy … [within a landscape study] … we need to recognize that the ‘objective’ topography is quite different from the landscape that makes up the context of human dwelling … [and which] … is presumably the latter that an archaeology that concerns itself with experience, occupation, and bodily practice seeks to investigate.

Rather than being concerned with the exploration of the symbolic meaning of material objects in the landscape, Thomas (2008:305) argues:

that a central concern would be with how a landscape was occupied and understood, and how it provided the context for the formulation and enactment of human projects. ‘How did people relate to it?’ in different contexts of engagement may be a more appropriate question.

These are some of the questions that this research seeks to address.

In order to explore aspects relating to social geography via an analysis of rock art, other markings on stone, and the stone and land itself, these concerns both structure the questions posed and concomitantly, the observations of materiality made. However, as Thomas (2008:305) cautions, in an archaeological analysis of such matters, the way we may make our observations is brokered by our modern ‘contemporary skills, understandings, and practices of which we may be only partially aware’. Yet, nevertheless, our experience of a place or artefact in its landscape context is of value because the material object represents more than the product or outcome of an extinct pattern of social life; ‘it represents an integral and still extant element of that pattern’ (Thomas 2008:305). These elements potentially allow us to grasp the habitual mode of human conduct (cf. Thomas 1996:235); the charting of variability in these patterns over time has the potential to be informative of the historical dimension of change and transformation between humans and their world.
A notion underpinning this research is that humans live within a number of types of space. One is that of our lived and embodied experience in our environment, the ‘space in which we habitually move and which is not external to us but a concomitant of our activities’ (Dobrez 2009:5). Another space, which is directly relevant to rock art, is that of representations. This imagined space is no less real than a lived space, but is one that we inhabit as our lived space recedes and we experience space imaginatively when prompted by a visual narrative (Dobrez 2009:5–6). An example of the type of visual prompt, which may provoke such an imaginative space, can be seen in Plate 1.1, where the two marsupial gliders are drawn without their snouts, but with their partial heads against a natural bedding plane, suggesting that they are entering a crack in the rock. Rosenfeld (2002:74) describes the narrative quality of track alignments, which visually render movement and sometimes rise out of, or disappear into, natural fissures or hollows. Taçon and Ouzman (2004:60) also refer to similar relationships between imagery and stone. Still another space, which may be invoked by representation, is that which is experienced by viewing non-narrative rock art (e.g. see Plate 1.2 below), where the image is read as entering our actual lived space (Dobrez 2009:6–7).

In previous research conducted in the Sydney Basin, rock art located in shelters has been considered, at least implicitly, to be functionally equivalent across both space and time. The research here, by comparison, explores both synchronic and diachronic variability and gives consideration to the occupational and contextual diversity this represents. While the research is conducted without the support of any direct dating or archaeological context, it nevertheless seeks to discriminate temporal diversity in spatial patterns, and, concomitantly, reveals a part of the narrative of Aboriginal social life and history.

Plate 1.1 Images of marsupial gliders drawn in a way that visually suggests their movement into the rock (rock shelter A12).
Source: Photograph by Julie Dibden, 2011.

Plate 1.2 An unusually large anthropomorphic motif (160 cm high) drawn in a way that visually inhabits the viewer’s ‘lived’ space (rock shelter UA36).
Source: Photograph by Julie Dibden, 2011.
1.1 Research Focus: Social Geography, Change and Transformation

In the quotation at the beginning of this chapter, Lewis and Rose (1988:46) refer to the marks on the earth left by the travels and activities of Dreaming Beings in the Victoria River district of the Northern Territory. Given the longer history of violence and dispossession, which occurred during the colonial and post-colonial period in south-east Australia, we are unfortunate not to have a similar living knowledge of Indigenous understandings of the features of the earth and how they were shaped. However, we do know that cosmogonic stories across Australia share a common trait in that they describe the journeys of Ancestral Beings as they traversed the land, transforming their bodies into landscape features and other natural phenomena (Tamisari & Wallace 2006:216). In so doing, the existence of all life forms (including people), and the correct and moral practices of life were established. This ancestral law in Aboriginal society simultaneously embraces religious, social and geographic realms (Swain 1993:117). Aboriginal geographies of country are grounded in explanatory frameworks, which refer to the creative actions of Ancestral Beings (Rosenfeld 2002:62).

A cultural landscape or social geography can be conceptualised as an enculturation of natural space. One mechanism by which this is achieved includes the identification and naming of nodes, or culturally ascribed significant places, in a spatial continuum (Rosenfeld 2002:62; see also Tilley 1994:34). However, Rosenfeld (2002:62) emphasises the importance of individual places that act to ‘structure a sociopolitical framework of space … [country] … and in this way serve to define and to articulate a shared identity by its legitimate users’. It is in this manner that rock art has the capacity to be used in explanatory frameworks, which provide a ‘cohesive ontology of country’ (Rosenfeld 2002:62). In Aboriginal Australia, both spatial and temporal referents, which may serve in this process, are generally legitimised by the ancestral past. Rosenfeld (2002:63) remarks that ‘[t]he way rock art is located within the cultural praxis of such metaphysics is of interest to archaeology, because it is one of its more enduring expressions’.

One of the significant features of rock art, as social praxis, is its durability (cf. Rosenfeld 2002:61). The stone on which rock art is created ‘has the potential for permanence, and that is almost certainly a factor in the choice of a rock surface in the first place’ (Forge 1991:44). While the significance of rock art as practice and the nature of the relationship between the artist and locality in Australia is diverse, Rosenfeld (1997:291) notes several generalised points. First, ‘most if not all Aboriginal rock art has in some sense a meaningful relationship to the locale in which it is executed’. She amplifies this point by noting that cultural constraints exist, which determine who may paint and what is appropriate to paint at any locality. In addition, the majority of rock art, other than mechanically imposed marks such as stencils, is concerned with the Dreaming, ‘either explicitly or evocatively, or by negation via “trickster” spirits that stand in opposition to the ordering principles of the Dreaming’ (Rosenfeld 1997:291; see, for a different emphasis, Taçon 1989). These general principles of rock art praxis underpin the conceptual framework in this research.

For locally appropriate conceptual and methodological guidance, the research draws upon anthropological understandings of rock art practice in Aboriginal Australia, and certain matters of relevance to an archaeological study are clear. In the absence of an ethnographically informed context and knowledge of the discourse in which rock art is, or was, situated, its cultural meaning is, and is likely to remain, largely unknown. This necessarily imposes epistemological limitations upon an archaeological study of rock art, and a recognition of this has significantly influenced the nature of enquiry in Australia, much of which has, until recently, been directed towards functional interpretations conducted under the umbrella of information exchange theory (Rosenfeld 1992).
Morphy (1999:21–22) suggests, however, that the possibility of some access to the meaning of art in archaeological contexts remains, and he emphasises that, given the relationship that can exist between form and meaning, this may be explored by first investigating the formal properties of art objects. That is, the archaeological question may be posed initially as to ‘how something means’, prior to questioning what it means (Morphy 1999:21).

Social science has conceptually privileged society in explanatory frameworks, and regards objects largely as representations of society; objects represent people—for example, the Bell Beaker culture. Archaeological studies of rock art in Australia, in which style theory, or an analysis of formal variation, has been employed, have considered stylistic and formal attributes as those that possess the social or meaningful aspect of rock art. Style in any one of its permutations, as Boast (1997:173) expresses:

> is that bit that we find most socially meaningful, the bit that is most human, added on beyond natural necessity. It is the bit that is most to do with the mind, with human intentions, with human communication. Style is seen as the key to the social.

It has been style itself, rather than the artistic tradition, or rock art as praxis, with which the archaeological study of rock art has been concerned because it is style that has been assumed to encode social information (cf. Wilson & David 2002:4). Style is something that is seen to be supplementary, and this view is arguably attributable to the modern separation of form and meaning from materiality (Thomas 2004:213). In stylistic or formal approaches, a dichotomy between form (style) and matter is conceptually fundamental, the former being afforded the greater consideration and analytical relevance, and it is this view that is now the subject of serious evaluation (cf. Boast 1997:174; Wilson & David 2002:4; Thomas 2004:212).

In this research, the theoretical focus is drawn from materiality studies, which attend very closely to the particular properties of material objects, and even recognise what is described as the false dichotomy between symbolic and materialist readings of the world (Meskell 2005a:2). Miller (2005a:212) expresses this in the following way: ‘[m]ateriality as a term always speaks to a paradox, which is the assumed greater reality of that which we do not apprehend over that which is merely evident’. By way of explication, Miller (2005a:212) refers to religions, for example, and the assumption that what we see materially as its expression is superficial, ‘mere tokens and signs’, and that the ‘real’ lies outside of the object and in the cosmological world. The paradox is that immateriality can only be expressed through materiality, and Miller (2005b) argues that a general rule is that the more humanity reaches toward a conceptualisation of the immaterial, the more important the specific form of its materialisation. In the field of religion, the more we feel the deity is beyond our comprehension, the more valuable the medium of our objectification. What makes materiality important is the systematic cultivation of immateriality (Miller 2005b:12).

Conkey (2001:272), who has paid much attention to the question of the use of the term ‘art’ in archaeological contexts, has welcomed the recent trend in material culture studies—she believes this allows for a more value-neutral analytical framework. She suggests that, if what we call ‘art’ were instead to be termed ‘material culture’, our attention might turn more appropriately to questions of how art works. The exploration of materiality resides at the core of contemporary material culture studies (Meskell 2005a:1).

A shift towards explorations of the materiality of rock art is exemplified by researchers such as Ouzman (2001) and Rainbird (2002), who, for example, in questioning the visual primacy of rock art and its analysis wherein the sense of vision is privileged, have instead explored non-visual aspects of rock art (see also Wilson & David 2002:4; Taçon & Ouzman 2004:61). Ouzman and Rainbird have both examined the role of sound in the production of rock art. Studies such as
these exemplify a trend in which the deeper materiality of rock art is explored, and which seek to attend to ‘uses of the imagery, the rock, the rock art site and the landscape that do not obviously fall within the eye’s compass’ (Ouzman 2001:238, my emphasis). Rainbird (2002:93) suggests that an adequate understanding of rock art may need to go beyond the motifs themselves in order to deeply consider rock art and the production of meaning. He argues that, rather than being an end product, the significance of rock art may have been in its productive context. While these types of studies are valued for their move away from what some have described as the tyranny of vision and sight, ‘towards an understanding of place through perception and bodily experience’ (Tamisari & Wallace 2006:221), they may be of limited use in contexts where there is an absence of supporting evidence with which to build linking arguments relating to the relevance of sound phenomena, and so on. Nevertheless, the importance of these studies is that they draw attention to the possibility of a deeper exploration of rock art as praxis.

Thus, if the ‘eye’s compass’ is refocused in rock art sites, it is possible to explore more than meets the eye in rock art, the rock shelter and its location, and this may enable a deeper exploration of how rock art means. Taçon and Ouzman (2004:63) suggest ‘the world is not always what it seems. Our everyday experience is literally at the surface of reality; a much larger universe lies beneath if we are willing and able to enter it’.

The view taken in this research is that rock art has particular (and potentially variable) properties, and that the investigation of these, conducted in respect of their materiality, may allow for a nuanced study of the object world and ‘how something means’ (cf. Meskell 2005a:2). This investigation is conducted with reference to the notion that the physicality of rock art is ‘enmeshed in the work of praxis: cultural construction is achieved through action rather than simply conceptualisation’ (Meskell 2005a:2). Thomas (2004:219) expresses a similar sentiment: ‘[w]hen a material is crafted poetically, it appears on the scene not as a dead object, with a series of attributes or qualities attached to it, but as a happening … [and its construction provides] … the context for a realisation of the potential for a relationship between people and their world’.

Rock art has many attributes that are limited, at least in part, only by the lens through which they are perceived. Not all of these are necessarily located within the formal or visual properties of the motif itself, but may include, for example, the nature of the pigment and the myriad of cultural and symbolic productive and narrative complexities it may possess. Rock art may also reside in a relationship of isomorphic congruence (where the shape of a motif mirrors that of, or incorporates within its materiality by some means, natural rock features [e.g. see again Plate 1.1]); the materiality of rock art may be very complex indeed, and, quite fundamentally, include the rock and land itself. All the attributes rock art may possess, its formal properties and material, micro-topographic situation within a rock shelter, geographic location and so on, are the result of choices made by the people responsible for its execution and, accordingly, provide an informing context in regard to the making and objectification of the thought world, and how the transcendent was made manifest and real. It is via material objects that the conviction of the transcendent is expressed or objectified (Miller 2005b:1).

As noted above, rock art in the Australian ethnographic ‘present’, other than mechanically imposed marks such as stencils, refers in some way to Ancestral Beings (Rosenfeld 1997:291, but see Taçon 1989). However, we cannot assume that this has always been the case (cf. David 2002), nor that rock art itself as a practice has always been an expression of Aboriginal life in all places, even where suitable stone is present. At different times in the past, people may ‘have enjoyed different kinds of engagement with the material world’ (Thomas 2004:219). This research examines how the practice of rock art and other marking of the land changes, and how human beings have related and engaged with the land differently over time. As with many forms of material culture, rock art has a complex temporality as it has the potential to remain extant long after its original production. In this context, observations may be made of both the instantiation
of its creation, and the trajectory of its subsequent lifeworld. In Aboriginal Australia, rock art may become unrecognisable as having been created by human agency. It is in this sense that rock art may become something that has not been made by people, but is an Ancestral Being itself (Lewis & Rose 1988). In any case, in regard to rock art, in its ‘grounded materiality of the object world’, and with a consideration of its potential longevity, its ‘residual force of matter has the ability to shape and influence the living’ (cf. Meskell 2005a:3; see also Hiscock 2008:259). This notion that ‘things make people, and people who are made by those things go on to make other things’ (Pinney 2005:256) resides at the heart of materiality theory.

In this monograph, the historical dimension, in which people inhabited, occupied and experienced the landscape of the Upper Nepean catchment, will be examined by charting how rock markings, and the locations and places marked, changed over time; patterns of similarity, or contrast, in these variables will be examined within a temporal framework. It is known from the archaeological record that Aboriginal people have occupied the region since the late Pleistocene (Lampert 1971; Boot 1996:275; Attenbrow 2002:153; McDonald 2008a:36). That record has revealed temporal variability and chronological change in technology, occupation and land use, which is also synchronically spatially patterned and variable, perhaps reflecting contextual function (Boot 2002; Attenbrow 2004; Robertson et al. 2009:305). Something is also known, although with very little detail, of Aboriginal responses to the impact of European occupation.

The cultural change, which is both observed archaeologically and known to have occurred via historical sources, is likely to have been accompanied by ‘developments in Aboriginal cosmologies and their mythic expression’ (Rosenfeld 1992:1, see also Rosenfeld 2002:61). Layton (1992:245, 2000b:175) argues that Australian clan totemism developed around 5,000 years ago, and its emergence was expressed in new distribution patterns in the production of rock art. More recently, other researchers have explored, via rock art, the emergence of recent cosmologies, and consider those that correspond with ethnographically known systems to have developed within the last 1,000 or so years (David 2002; Rosenfeld 2002; Taçon 2008a:171). Also, Frederick’s (1997) research, for example, has shown that within contexts of cross-cultural exchange, which ensued during the colonial encounter, rock art may express the forms of the Indigenous response.

There is no oral or textual (ethnographic, historical or anthropological) informing context with which to understand the practice of marking the land with rock art in the Upper Nepean catchment. A specifically archaeological approach to the measurement and explanation of variability in rock art in the absence of informing contexts has developed in Australia (cf. Clegg 1986:55), and there is now a long and established tradition of the use of rock art in defining temporal change and spatial variability in regional studies. A general pattern to have emerged is that of the definition of geographically widespread and uniform older (often inferred or known to be of Pleistocene or early Holocene antiquity) rock art styles, which give way to apparently more tightly bounded regional styles during the mid to late Holocene (e.g. Morwood 1980, 1984; Lewis 1988; David & Cole 1990; Taçon 1993). In several recent studies, enquiry has shifted towards examining changes, particularly in the recent past (both pre-European and after contact), in sociopolitical structures and ideational systems, and how these may be explored in rock art (e.g. Frederick 1997; Rosenfeld 2002:61; David 2002). A significant development has been to go beyond defining regional variation, to explore variability within regional rock art provinces (e.g. Officer 1984; McDonald 1994, 2008a; Ross 1997; Rosenfeld 2002:75). Officer (1984) and McDonald (1994) have examined sociocultural functional variability in the rock art of the Sydney Basin and identified a contrast between open context engraved and sheltered pigment rock art. While these studies have compared rock art in open and sheltered contexts, diversity within the latter will be explored in this research.
For archaeological research contexts, where rock art is no longer produced, and there is an absence of an ethnographic or anthropological context, Layton (1992:244–245, 2000a, 2000b) and Rosenfeld (1997:291) have developed models for the archaeological analysis of rock art. This research is guided by their concepts and methods. These models are premised on the notion that rock art may be produced synchronically within different functional and sociocultural contexts. Both authors emphasise a methodology that attends to the ‘deployment of art in different ways’ (Layton 2000a:170; see also Rosenfeld 1997:291, 1999, 2002), and the choice of sites and their location within the landscape, to provide clues to the social context of rock art, which does not depend on an understanding of its meaning and the cultural discourse of which it was a part. Rosenfeld (1997, 2002) also considers the relevance of attending to the nature of any associated archaeological evidence, such as domestic occupational debris, to further provide an informing archaeological context of the role of rock art in cultural praxis.

McDonald (1994:336, 2008b:343) has constructed a chronological framework for the rock art of the Sydney Basin. This chronology extends the production of rock art in this region from at least the mid-Holocene through to the period of the colonial encounter. In this monograph, synchronic variability of rock marking within defined temporal phases in the Upper Nepean catchment will be examined. In this sense it is assumed that, potentially, rock art functioned in different spheres of social life, and that, accordingly, diversity may reflect different social contexts—and also in light of the discussion above, differences in the modes of objectifying the immaterial. The Australian ethnography suggests that all rock art within a sociocultural context is unlikely to be equivalent in meaning and function. Rock art may express religious, secular and even subversive themes (Ucko & Rosenfeld 1967:160; Layton 1992:85, 2000b:176), and anthropological enquiry has revealed the ‘multivalency of artistic expression’ (Rosenfeld & Bahn 1991:vi).

The idea that different styles and functions of rock art may be contemporaneous within a region has been recognised for some considerable time (Ucko & Rosenfeld 1967:71; cf. Chippindale & Nash 2004:7). Layton (2000a:176) argues that in Australia totemic rock art frequently coexists with rock art produced in accordance with other themes such as sorcery and the everyday practices relating to hunting and gathering. From an emic perspective, people are able to differentiate between these different themes to deduce an authorised reading by attending to stylistic or iconographic traits, or the location of rock art within the landscape (Morphy 1999:14; Layton 2000a:176). A correspondence between synchronic rock art variability and different social contexts has been identified elsewhere in Australia (e.g. Morwood 1981:15; Officer 1984; Lewis 1988; 91; Rosenfeld 1997; David et al. 1999; McDonald 2008a). This topic of research is significant given that rock art variability that relates to social context has implications for the methods used to identify and analyse both spatial and temporal distribution patterns. As Macdonald (1990:60) remarks, ‘if we fail to distinguish and disentangle complex levels of social process, we will fail in our analysis of style or anything else’. In this research, the conceptual basis for investigating variability in the material record specifically addresses the notion of social context. Human behaviour is recognised as being culturally and socially mediated, and accordingly:

An immediate emphasis is placed on the social circumstances that tend to produce observable variation in that behaviour. That is, social context defines the limits and modal constraints on the appropriateness of social behaviours; human social behaviour is situational and context dependent (Macdonald 1990:52).

Specifically, in regard to rock art, Layton’s (2000b:50) concern is with the referential context of social action, and he argues that this can be conceptualised on two levels. One is the broader cultural discourse in which rock art is practised, and the other is that of the world of perceived objects (Layton 2000b:50). In this sense, rock art motifs, while they may be read slightly differently
between different members of a community are, nevertheless, produced within a framework of shared experience and meanings—that is, they are mutually intelligible within the ‘intersubjective community of knowers’ (Layton 2000b:50). On the other hand, the representational qualities of rock art, and whether or not these are ostensive or denotative, ‘provide referential toeholds’ into the world in which rock art was situated (Layton 2000b:52). David (2002:200) argues that the animals depicted in the late Holocene rock art on Cape York are evidence for the emergence of ‘newly regionalized referential systems’. He argues that people did not merely and suddenly begin to produce rock art in new styles; ‘[w]hat took place involved also the referential signs through which peoples marked, understood, experienced and deferred to their worlds’ (David 2002:199). David (2002:199–200) emphasises the importance of the concept of reference, this being the way in which the world is ordered in a ‘chain of inter-connected signifiers’, a process that involves the construction and relation of categories in a system of meaning. The analysis of the rock art in this research will seek to define the referential system and the ‘universe of discourse’ within which it was produced and employed, to construct and mediate the relationship between people and their world.

This research explores the manner in which people engaged in place, and how they experienced, modified and constituted their world, identity and history. Similar to David (2002), this research is concerned with the historical dimension of place marking. Given the physicality of landscape in which meanings and readings of landscape are situated, van Dommelen (1999:278) suggests landscape is where history most solidly resides; landscape and society are intertwined, for landscape itself is integral to the reproduction of social life. This research is an analysis of the material and object world and seeks to explore the social geography of the people of the Upper Nepean catchment.

1.2 Location: The Upper Nepean Catchment

The Upper Nepean River catchment occupies the southern end of the Woronora Plateau and is located immediately west of Wollongong and the Illawarra coastal plain (Figure 1.1). The plateau is deeply dissected by rivers and tributary creeks. The crests of ridges and catchment watersheds are gently undulating landforms (Plate 1.3). However, valley slopes are generally narrow, steep and frequently cliff-lined. All of the archaeological evidence examined in this research is comprised of marks on sandstone rock located within this highly variable yet generally rugged terrain.

Within its broader geographic context, the Upper Nepean catchment is geologically and topographically very different from the adjacent coastal plain and muted landscape of the Southern Highlands (Plate 1.4). It is separated from the coast by ‘[t]he Illawarra escarpment … [which] … is one of the most striking features of the NSW coast, for it runs like a great unbreached wall for some 120 kilometres, and dominates the narrow plains below’ (Young 1980). The study area is a place in which the concept of human movement is particularly salient. Access from the coast is possible through isolated passes on the escarpment. Elsewhere, the steep-sided gorges of the rivers form barriers from the west. Once in the area, given its heavily dissected character, human movement and occupation is constrained and channelled along clearly defined natural routes (cf. Bradly 1991:80), which are the relatively level crests located between the rivers and their tributary streams. The manner in which the topography of the study area influences human movement and occupation forms a set of independent environmental variables with which to explore the archaeological signatures of occupation and land use, and the functional and sociocultural context of rock art as social praxis.
Figure 1.1 Location of the Upper Nepean catchment in a regional context.
Source: Map reproduced from Dibden (2011).

Plate 1.3 Lizard Creek flowing northward along the ridge crest situated to the west of the Cataract River. The abundance of water available on the plateau, rather than only in valleys, is an unusual and significant natural phenomenon of the study area.
Source: Photograph by Julie Dibden, 2011.
1.3 Method

European occupation of south-east Australia in the late eighteenth century had an immediate and profound effect on Aboriginal individuals and society. Within a year after occupation there was significant loss of life due to introduced disease, and immense disruption to social, cultural, religious and economic life. While people were able to continue to dwell within, or at least visit, the Woronora Plateau area for some time, by the mid to late nineteenth century there was a virtual abandonment of country as people forged a life within the new settler society and economy. In the late nineteenth century, the country was further alienated when it was gazetted as a water reserve for Sydney and its suburbs, and subsequently dammed (Plate 1.5). The area is now controlled and managed by the Sydney Catchment Authority (SCA) and the New South Wales Office of Environment and Heritage (NSW OEH). Access is restricted, and Aboriginal people now visit only within the context of resource management conducted within the framework of environmental impact assessment. Given the passage of time since the abandonment of the plateau, there is now no social context of land use from which to obtain insight into the meaning and function of the rock marks in the study area.

The ethnohistoric records for the broader Sydney and Illawarra region are substantially incomplete (cf. Stanner 1969:32) and are virtually non-existent for the study area (cf. Attenbrow 2002:15). The records that do exist generally refer to chance encounters with Aboriginal people, with little or no mention made to social and economic life. Mathews and Everitt (1900) do refer to ceremonial activity, but these records were made approximately 100 years after contact and, accordingly, are limited.
Contact imagery (drawings of sailing ships, stencils of steel axes and so on) is present in the wider Sydney Basin area, attesting to the production of rock art during the colonial period until the 1850s (Layton 1992:27; McDonald 2008a:248). However, the early European commentators in the Sydney region did not record either the purpose of rock art production or the meaning of imagery (Chippindale & Nash 2004:17; McDonald 2008a:3). McDonald (2008a:3) remarks that ‘this has resulted in a regional body of art without anthropological or social context; one for which the meaning cannot be interpreted except by archaeological means’.

Given the absence of either relevant ethnohistoric records or a direct means of acquiring informed insight for interpreting the archaeology of the study area, this research has been conducted within the parameters of formal archaeological methods and analysis. All previous rock art research conducted in the Sydney Basin has, likewise, been undertaken by way of a formal archaeological methodology. Chippindale and Nash (2004:20) have succinctly described formal methods as ‘any method of study that does not depend on inside knowledge, but works by the features that can be observed in the rock art itself, or in its physical and landscape context …’ (my emphasis).

The development of archaeological methods of analysis is a defining signature of Australian rock art studies. When rock art analysis was being developed in the 1970s, researchers such as Maynard (1977) and Clegg (1983) stridently eschewed a search for meaning, considered such a goal as intractable and focused on developing methods for analysing visual form. Officer (1984, 1991:113, 1994) has subsequently further developed the analysis of the formal properties of rock art. However, with the strength of focus on the visual form, there has been, until recently, a tendency to isolate rock art from its archaeological context. Rock art has been treated as an archaeological artefact, but frequently has been analysed independently of other associated, contextual data. In early studies, motifs were the units subject to analysis, while the place (the stone, the rock shelter) in which these artefacts were situated was not incorporated in analyses. A recent development now places an emphasis on landscape and its relationship with...
1. Introduction

art, the artist and the audience (Chippindale & Nash 2004:3). Greater attention is now afforded to the physical location of rock art—that is, the micro-landscape and macro-landscape context (cf. Chippindale & Nash 2004:21). The importance of this approach is exemplified by Frederick (1997), for example, who successfully explored change in social contexts of rock art production that occurred within the early period of Aboriginal and European interaction in Central Australia by closely analysing changes over time in graphic variability and changes in the geographic and environmental distribution of rock art. Similarly, Ross (1997), for her north-west Central Queensland study, utilised very fine-grained considerations of both environmental and micro-topographic attributes of motif location in her analysis and revealed very strong distribution patterns. This allowed her to demonstrate within-regional variability, and to argue that different categories of rock art were produced to fulfil different social strategies.

In Australian archaeology, the influence of the environment on change in the Aboriginal past has held a paramount explanatory position, both generally and particularly in relation to rock art analyses (Rosenfeld 1992). People have been viewed as having adapted to the environment, both responding to change and shaping the landscape itself (Head 2008:373). However, as Denham and Mooney (2008:365) argue, there has been a failure to explore the mutually transformative and temporal dimension of human-environment interactions. Previous rock art studies, which were conducted within a structural-functional perspective, viewed change to be precipitated by external factors (the environment). The processual paradigm was not up to the task of considering the role of endogenous social and cultural causes of rock art production, nor, for that matter, for explaining diachronic change (cf. Tamisari & Wallace 2006:205). Furthermore, human activities have frequently been ‘read off’ the archaeological record, and little attempt has been made to understand the historical, spatial and social contexts of changing human practices in response to environmental change (Denham & Mooney 2008:366). This has resulted in an archaeological account that, while being ‘overtly’ chronological, is profoundly ahistorical—that is, the ‘socio-environmental inheritance’ that contextualises and structures people’s response is not taken into account (Denham & Mooney 2008:366).

Landscape is more than a set of ‘objective’ topographic features. Landscapes are constructed out of cultural and social engagement; they are ‘topographies of the social and cultural as much as they are physical contours’ (David & Thomas 2008:35). The conceptual approach to landscape in this research is based on a concern with experience, occupation and bodily practice (cf. Thomas 2008:305). Ingold (1993:153), in his argument relating to the temporality of landscape, advocates a dwelling perspective. He considers landscape as narrative and says ‘the landscape tells—or rather is—a story’ (Ingold 1993:153). The methodological approach adopted in this research attends particularly to location and relationality as a means of contextualising rock art as cultural practice. Given the nature of the physiography, different places within the Upper Nepean catchment are likely to have been utilised for different purposes and by different categories of people. As previously addressed, the Upper Nepean is not only difficult to enter, particularly from the coast, but, once there, human occupation and movement is constrained by the presence of steep, rocky slopes and cliff-lined gorges. The variable ‘spaces’ as embodied and experienced present a diverse suite of locales, and the location of rock art and other marks in different environmental and topographic contexts in the study area have the potential to be informative of different social contexts of production and perception. Landform and environmental elements, as measurable empirical space, will be employed methodologically to explore rock art as cultural praxis. Such an objective methodology may seem at odds with the research emphasis. However, for various reasons, not the least of which is the vast space encompassed by the study area, it allows for the identification, at a fine level of spatial resolution, of elements representative of the patterns of social life and how these may vary over space and time.
The morphology of the rock shelters in which rock art is present will also be investigated in the analysis. The size, shape and type of floors in shelters is influential in regard to the nature of their occupation and use. While it is sometimes expressed that rock art was made and meant for the place in which it is found (cf. Domingo Sanz et al. 2008:21), the relationship between rock art and its locale may be the result of choices made relating rather more pragmatically to the manner in which a rock shelter itself allows for the practical fulfilment of certain social practices in specific contexts. The micro-topographic context of rock art placement in rock shelters will also be examined. These independent variables have the potential to be particularly informative of experience and bodily action relating to rock art production and perception and, ultimately, variability in synchronic sociocultural context and temporal change and transformation.

Based on the proposition that not all features at rock art sites are the same order of cultural manifestation (Rosenfeld 1997:291), the rock marks located in shelters will be initially categorised in accordance with their behavioural signatures. Two primary types are identified, graphic and non-graphic gestural marks. The first of these are conceptualised as being ‘coherent sets of images the meanings of which are conveyed by virtue of their visual qualities as constrained by conventions of graphic construction’ (Rosenfeld 1997:291). The graphic rock art will be subject to a detailed analysis in order to finely discriminate variability. Each image will be classified in accordance with its formal properties of graphic and material construction, figurative referent, as well as its imagined space. The other category of rock markings, which are described as gestural marks, are those that include mechanically imposed forms such as stencils (cf. Rosenfeld 1997:291) and others that result from gestural actions, such as pitted or rubbed surfaces, and non-graphic applications of pigment, which include, for example, applications of pigment to natural features on rock art panels (cf. Smith & Rosenfeld 1992:12).

The discrimination of rock marks in accordance with these two categories will be undertaken so as to explore the sociocultural context of rock art production and use from a behavioural perspective. The patterning that may exist between the site specific (shelter morphology, etc.) and the geographic and environmental location of these different categories of rock art is expected, in accordance with the models proposed by Layton (1992, 2000a, 2000b) and Rosenfeld (1997, 2002), to illuminate the social role of rock art in the Upper Nepean catchment. In accordance with an objective of this research to explore change and transformation patterns in the interplay of the variables will be examined within a framework of temporal change.

Analyses will include quantitative and qualitative approaches. Quantitative approaches to rock art have an established place in Australian archaeological research (Rosenfeld 2000:4), whereas a qualitative approach is less developed. Rosenfeld (2000:4) remarks that ‘there has been a tendency to overemphasise the requirements of numeracy at the expense of qualitative evaluations’. She (2000:4) argues:

> there is now a need to place greater emphasis on the qualitative and contextual criteria of the art, and to focus on the rare or unique manifestations at rock art sites that tend to be masked in statistical analyses, including also individual site histories where this can be assessed. I believe only this finer scale of analysis will lead to a closer focus on the changing cultural contexts of rock art production and of rock art perception.

Ingold (1993:153) considers that ‘[t]elling a story is not like weaving a tapestry to cover up the world, it is rather a way of guiding the attention of listeners or readers into it’. This research employs a qualitative and descriptive analysis of the rock marking, its variability and its locational characteristics, so as to enable dealing with the nuances of the material, which is unlikely to be achieved solely by a quantitative analysis. Individual site histories presented in Dibden (2011:Appendix 1) are foundational to the analysis.
1.4 The Archaeological Material

The Upper Nepean catchment has approximately 810 known archaeological sites. The majority have been located and recorded by the Illawarra Prehistory Group (IPG). Over 500 are sandstone shelters with rock art. They have not been subject to previous comprehensive archaeological analysis, nor has the rock art been described systematically. The presence of such a large and yet unexamined body of rock art was the main impetus for undertaking the research in this area.

A number of studies have examined rock art in areas further to the north in the Sydney Basin (e.g. McMahon 1965; Officer 1984; Sefton 1988; McDonald 1994, 2008a). The rock art of the study area falls within the geographic extent of the distinctive regional style of the Sydney Basin, which has been previously defined as a Simple Figurative style (Maynard 1979; cf. McDonald 1994). The work of Officer (1984), Sefton (1988) and McDonald (1994, 2008a:321) has expanded our understanding of the nature of this rock art and its variability. Nevertheless, the Sydney Basin rock art has the potential to be described in further detail, with the concomitant expectation that the use of fine levels of analytical resolution may enable deeper levels of understanding and interpretation.

A wide range of rock mark types, which were produced by various actions and techniques, is present in the study area, and many of these have not been explored deeply before. Rock markings are geographically widespread and occur in all landforms (Dibden 2011:Appendix 2). They are located on open exposures and in rock shelters. They mark the land in many ways—from boldly and colourfully, to secretly and subtly. The small eel motif shown in Plate 1.6 is located on a very low ceiling and is situated approximately 60 centimetres above a stone floor. To make or view this image, a person must crawl into the space and lie down. By comparison, the large eels in Plate 1.7 are located on a large rear wall in a commodious and tall shelter. The example of these two contrasting locations, in which images can be present, exemplifies variability in experienced space, and suggests that different contexts of production and perception operated throughout the study area. These examples also show differences in their inscription and subsequent lifeworld. The lightly scratched eel has been produced expeditiously, while the others have been drawn with coloured pigment, which must have been brought to the site. Furthermore, the coloured eels have been redrawn at some time after their original creation.

The archaeological material is in open contexts, which primarily contain hatchet-grinding grooves (Plate 1.8), and sheltered contexts (Plate 1.9), which mostly contain rock art. The 20 weeks of fieldwork for this research focused on recording rock markings in sheltered contexts.

Archaeological excavation in the study area was beyond the scope of this research, which has been conducted independently of a local archaeological context. In the Upper Nepean catchment, there has been no excavation-based archaeological research. Accordingly, the analysis and interpretation rely solely on observations relating to the rock marks and the material contexts in which they are situated.
Plate 1.7 Large colourful eel motifs (rock shelter BR29).

Note the eel heads are at the top of the picture and these are three different coloured pigments: red, black and white.

Source: Photograph by Julie Dibden, 2011.
Plate 1.8 Grinding groove site in the sandstone bed of an upland dell (swamp) (open site UA3). Note the small pothole with water at bottom right with a single groove at the front, and numerous grooves arrayed behind the hole to the top right. Note also a long, engraved groove channel extending across the rock surface in the centre of the photo.

Source: Photograph by Julie Dibden, 2011.

Plate 1.9 A small rock shelter in a boulder that has a relatively large number of graphic and non-graphic rock marks (rock shelter SCR4).

Source: Photograph by Julie Dibden, 2011.
1.5 Structure of Book

In Chapter 2, the environmental context of the study area is described, including its structure, geology, hydrological regime, vegetation and climate, and its variability over time. Consideration is given to constraints and opportunities afforded by the terrain in regard to human movement and occupation. Weathering and site formation processes in rock shelters are discussed as they have considerable relevance to contexts of human occupation and the preservation of rock art.

The wider geographic and environmental context, in which the study area is located is described in Chapter 2 to provide a broader context for the use and occupation of the Upper Nepean catchment in the pre-colonial and colonial periods. From the time of earliest occupation, presumably in the late Pleistocene, until the mid to late nineteenth century, Aboriginal people moved in and out of the Upper Nepean as they fulfilled their various economic, social, religious and familial activities and responsibilities. It is suggested in Chapter 2 that, during Aboriginal use of the region, the study area presented a geographic and environmental context that, differing as significantly as it does from its neighbouring terrain, provided a unique suite of constraints (as discussed previously) and opportunities regarding its occupation. The study area contains an abundance of sandstone surfaces, which allow for the possibility of the manufacture and sharpening of ground-edge implements and the recording of visual imagery in the form of rock art, which held some potential for permanence.

In Chapter 3, a framework of Aboriginal occupation of the broader Sydney Basin is outlined. It includes a summary of the archaeological understanding of the temporal framework of human occupation and change over time, the ethnographic context and a consideration of Aboriginal responses in the colonial period. This chapter sets out the chronological framework for Aboriginal people’s occupation of the region from their earliest presence, as understood via archaeological observations and analysis, and how this changed through time. As far as possible, an ethnographic and historical review of Aboriginal life in the Sydney region will be outlined. However, our ethnographic understanding of Aboriginal people in this area, and the historical dimension of the colonial encounter, has been reconstructed from scant historical records produced during a context of death and dispossession (Swain 1993:115) and is sketchy and severely limited. Stanner (1977) has described the colonial and post-colonial past as a ‘history of indifference’, and this portrays both the substantive situation that prevailed and the general lack of regard for this history. However, historical scholarship has, in the recent past, become attentive to colonial processes, ‘and in particular the dramatic and often violent events of the colonial frontier’ (McNiven & Russell 2002:27).

Two recent religious histories are also discussed in Chapter 3, which address the intellectual and cultural milieu of the Indigenous people of south-east Australia in the colonial period, and which chart the startlingly swift and dynamic ritual response at this time (Swain 1993; Carey & Roberts 2002). By its nature, a historical narrative is derived from textual sources and is one that does not well breach and traverse the ‘far side of the frontier’, given the absence of an Indigenous voice in relevant texts (cf. McNiven & Russell 2002:27). Similar to the accounts set out in Chapter 3, McNiven and Russell (2002:28–31) describe numerous instances of ritual responses to colonial situations in Australia, and pose the question of whether or not these ‘historical snippets of ritual activities [are] mere glimpses of an otherwise invisible domain of Aboriginal responses to European invasion?’. They suggest that, via archaeology and specifically the analysis of rock art, the ‘complicated relationship between coloniser and colonised’ may be understood.
The conceptual framework is outlined in Chapter 4. The archaeological context of rock art research in Australia is discussed to provide a paradigmatic framework. The research question and the conceptual focus of this research has been outlined in this introduction and, in Chapter 4, the theoretical underpinnings of this research will be developed further.

In Chapter 5 the database upon which this research is based is defined, and its biases and limitations are addressed. The methodology and nature of the data collection employed in the fieldwork and the post-fieldwork data treatment are described.

A general descriptive and quantitative profile of the database is presented in Chapter 6. Descriptive statistics are employed to explore the nature, diversity and distribution of open context and rock shelter sites, and the rock markings that each contain. Patterned relationships between different site types (and their identified variability) and geographic and environmental locations are defined and mapped. Hatchet-grinding groove sites are examined to provide a general context of people's habitual use of place. The rock markings and their diversity, contained within shelters, are quantified. Rock shelters are examined in regard to morphology, size and shape, as well as a number of other physical parameters, in order to consider their variability and potential in regard to human occupation and experience.

Earlier work dealing with the chronology of the Sydney Basin rock art is examined in Chapter 7, and the analysis of the relative temporal sequence of the rock art is documented. The temporal sequence in the current study area is explored by an analysis of superimpositioning of rock art.

Based on this analysis, an outline of temporal change, in both the rock art and the shelter and micro-topographic locational signatures of each phase of this sequence, is set out in Chapter 8. The rock art is analysed in detail in this chapter. Morphy (1999) argues that in order to define a body of rock art as a visual communicative system of meanings, it is essential to identify the manner in which it is constructed to convey meaning. A fundamental aim of this research is to explore the nature of the assemblage of rock marking in each temporal phase in order to define how rock art, as a visual communicative system of meanings, changes over time (cf. Morphy 1999). This will be undertaken by analysing each different mode of graphic and gestural expression and its intrinsic nature and variability. It is proposed that an examination of the different ways in which rock art is produced may provide clues as to its role in culture (Rosenfeld 2002), which, as Layton (2000a:170) emphasises, does not depend on reconstructions of meaning. In this sense, it is acknowledged that it is possible that rock art may express more than one core theme in a synchronic social context (Layton 2000a:172).

The analysis will be conducted using both quantitative and qualitative methods. In addition to rock art, shelters in the study area also contain evidence of other forms of gestural rock marking. These types of marks are not usually included in analyses of rock art, despite often being a real presence in shelter sites (Rosenfeld 1999). These marks are, however, the result of human behaviour, and can be described and quantified. They are, therefore, considered in this research to be a potentially significant data set of rock marks.

Various analyses will explore the manner in which rock marks articulate with the stone in which they are situated. A strong relationship of isomorphic congruence between images and natural rock features occurs in numerous instances in the Upper Nepean catchment, and this phenomenon will be described and quantified. In addition, images are present on a range of macro rock faces in shelters including walls, ceilings and concavities. In this regard, images can be located in either highly visible or hidden locales. The location of imagery and its variability in these different contexts is examined.
In Chapter 8 it will be demonstrated that, over time, marking the land became increasingly abundant and diverse. The temporal trends and patterns in rock marking, as defined in Chapter 8, will be explored further in Chapter 9 in a geographic and environmental framework. The spatial and landscape distributional signature of each temporal phase will be identified. The geographic location of specific categories of motifs will also be explored to determine if spatial patterning exists, which may indicate the emergence and existence of a totemic geography (cf. Layton 2000a). The spatial and locational patterning in the distribution of the most recent rock art will also be examined to explore whether or not rock art, as praxis, was a mechanism by which Aboriginal people sought to mediate their encounter with the British.

In Chapter 10, the results and implications of the analyses will be discussed. It will be argued that the practice of marking the land in the Upper Nepean catchment was a dynamic dialectic, both constitutive and transformative, of being and place. Over time, people drew the land into an object world that became, with ever-increasing inscription and embellishment, a marked and painted landscape, both productive of and reflecting a complex history.