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SOCIAL CONTEXT

While anthropology can help elucidate the complexity of cultural systems at particular points in time, archaeology can best document long-term processes of change (Layton 1992b:9)

In the original thesis one chapter was dedicated to the ethnohistoric and early sources for the Sydney region and another to previous regional archaeological research. Since 1994, Valerie Attenbrow has published both her PhD thesis (1987, 2004) and the results of her Port Jackson Archaeological Project (Attenbrow 2002). More recent, extensive open area excavations on the Cumberland Plain done as cultural heritage management mitigations (e.g. JMcD CHM 2005a, 2005b, 2006) have also altered our understanding of the region's prehistory. As Attenbrow's *Sydney's Aboriginal Past* (2002) deals extensively with ethnohistoric evidence from the First Fleet and early days of the colony the ethnohistoric and historic sources explored for this thesis have been condensed to provide the rudiments for the behavioral model developed for prehistoric Sydney rock art.

The British First Fleet sailed through Sydney Heads on 26 January 1788. Within two years an epidemic of (probably) smallpox had reduced the local Aboriginal population significantly – in Farm Cove the group which was originally 35 people in size was reduced to just three people (Phillip 1791; Tench 1793; Collins 1798; Butlin 1983; Curson 1985; although see Campbell 2002). This epidemic immediately and irreparably changed the traditional social organisation of the region.

The Aboriginal society around Port Jackson was not studied systematically, in the anthropological sense, by those who arrived on the First Fleet. Numerous accounts were made of the more obvious aspects of Aboriginal culture (e.g. Bradley 1786-92; Collins 1798, 1802, 1804; Dawes 1790; Hunter 1793; Phillip 1789, 1791; Tench 1793; Watling 1794; White 1790). Over the next 50 years a number of detailed references to Aboriginal life in the region were made (e.g. Barrallier 1802, Angas 1847, Threlkeld 1824-1859 in Gunson 1974, the Russians between 1814-1822 in Barratt 1981), but explicitly anthropological work was not undertaken in the region until the late 19th century, when R.H. Mathews (1896d, 1897c, 1897e, 1898b, 1900, 1901, 1908; Mathews and Everitt 1900) studied the languages and social organisation of various tribes in south-eastern Australia. These studies, however, took place in already devastated communities living in much altered circumstances more than 100 years after contact, and after a second epidemic of smallpox in the 1830's (Butlin 1983, Curson 1985).

While the Sydney ethnohistory is disjointed and its interpretation requires many 'leaps of faith', the First Fleet journalists were 'trained military observers' and the very survival of the colony depended on 'their observations and assessments' (Isabel McBryde, pers. comm., 1990). Also, in the early days of the colony, there was an atmosphere of philanthropy. Governor Phillip was intent on carrying out orders to 'establish with th[e native inhabitants] a strict amity and alliance' and to treat them 'with the utmost kindness' (Phillip 1789[1970]:36). Many of the descriptive accounts are useful in establishing daily activities of the Port Jackson Aborigines at 1788. The attendant interpretations and conclusions, however, particularly about the more abstract qualities of Aboriginal life, must be treated carefully (and see Clendinnen 2003).

In 1788 certain obvious differences were observed between groups of people living in the region. These included tribal (family and language) groupings, economic and social divisions

(coastal/inland, gender divisions, social prohibitions, ceremonies etc.). While this evidence is not sufficient to develop a firm behavioural model, it does provide material ‘clues’ for the interpretation of the stylistic patterning encountered in the art (and see Attenbrow 1988, 2002; Kohen 1986, 1988, 1993; Kohen and Lampert 1988; Lawrence 1968; Ross 1976, 1988; Vinnicombe 1980). Previous archaeological models based on these observations provide contradictory interpretations on social organisation (cf. Poiner 1971, Ross 1976, Kohen 1986).

This review establishes the behavioural parameters relevant to an interpretation of the art produced by the prehistoric inhabitants of the Sydney region. Of particular importance, are the social divisions which were recognised across the region and the types of social ‘boundaries’ which might have existed. Stylistic behaviour depends not only on social cohesion, and the maintenance of social ties, but also on social exclusivity, and the maintenance of boundaries between groups of people (Wiessner 1983, 1990; Wobst 1977).

Social organisation and language boundaries

[They are] divided into families. Each family has a particular place of residence, from which is derived its distinguishing name. This is formed by adding the monosyllable *Gal* to the name of the place: thus the southern shore of Botany Bay is called *Gwea*, and the people who inhabit it style themselves *Gweagal*. (Collins 1798[1975]:453)

The Sydney region falls within the south-east coast cultural-area group (Peterson 1976). While people would usually have subsisted in smaller localised groups, these groups would have formed part of a larger population. The social organisation of the Aboriginal people around Port Jackson was observed as named groups associated with designated tracts of land. It was generally recognised that the basic economic unit in the region was the family group - one or two adult males, their wives and dependants (young and old) - several of which usually teamed together to forage in a fairly restricted area (Lawrence 1968:171).

Within a year of arriving in Sydney a number of named groups had been recognised by the recorders on the First Fleets; the *Cadigal*, *Cammerragal*, *Wannegal*, *Wallumedigal*, *Gweagal*, *Boromedegal*, *Noronggerragal*, *Borogegal* and the *Gomerrigal* (Phillip to Lord Sydney, 13 Feb, 1790; HRA 1,1 [1914]:160). Only the first six of these were provenanced. Linguistic information (Capell 1970, Dawes 1790) has been used to supplement this list (Kohen 1988: Figure 2).

The complexity of kin relationship within and between family groups was not recorded – and nor is the relationship between family groups in the larger social structure understood. The presence of linguistic sub-groups was indicated by different dialects although the connections and social mechanisms which enabled the larger ‘culture’ group to function were not understood. The division of territory was still less clear, although most early writers observed that smaller groups had specific connections with particular locations (e.g. Collins 1798[1975]:453, Hunter 1793[1968]:62).

When considering the nature of territories and boundaries, particularly in terms of how these may be reflected in rock art, it is recognised that ‘boundaries’ are not entirely useful concepts when it comes to viewing Australian Aboriginal territorial organisation. Aboriginal territorial organisation is much more complex than any Eurocentric concepts of individual, or even corporate, ownership (Rigsby and Sutton 1982; Sutton 1995). While the anthropological literature is divided over the basic units of territoriality, definitions of ‘the tribe’ and the bases for territorial organisation, certain substantive matters are basic to a consideration of territoriality in contact Sydney. By necessity these are projected from ethnographic material from elsewhere on the continent. The following generalisations regarding Aboriginal territorial organisation are relevant:

- i) the demarcation of defined tracts of territory and sets of totemic sites was usual in Aboriginal society. The extent of this area can be defined as the extent of the resident population's ecosystem (Peterson 1976:58). While the periphery of this may have been vague, the 'heartland' of any group's estate gave that group its habitation and name;
- ii) a kinship defined 'residence group' occupied a defined tract of land (its range). This small scale exploitative population combined for various economic reasons: conservation of effort, population pressure, seasonality and scheduling, a mixed diet and the division of labour (Peterson 1976:59). Band size varied considerably by region across Australia (Peterson 1985:50);
- iii) residence groups comprised not only the members of the local descent (and therefore language) group, but wives, and also others of 'foreign agnatic stock' (Stanner 1965:11). There was fairly fluid movement of individuals between groups. Band size has been recorded as being remarkably consistent amongst hunter gatherers generally and Australia in particular (Peterson 1985:38). These are cited as variously being between 25-50 people with the optimum being 30 (Davidson 1938, Tindale 1974);
- iv) in many instances, 'zones of indeterminacy' exist between adjacent groups 'without clash over title' (Stanner 1965:12). These and indeterminate tracts (used, for instance, as access routes) were not the exclusive possession of any one band;
- v) the local group population was usually part of a larger regional or 'culture-area' population (Peterson 1976:51) and as such, shared a number of cultural traits and/or characteristics (Kroeber 1939, McCarthy 1940, Lampert 1971b). Visits between groups within a region were ruled by convention. 'Constant interaction of th[is] kind characterised both the religious and the secular life. There was a real interest in mixing with neighbours, and a strong moral requirement to share life-supports with them' (Stanner 1965:2). The evidence in the Sydney region is sparse [e.g. Collins (1798) and Howitt (1904)] but would appear to indicate that as many as 200 men or 600-800 people might congregate for the final sequences of initiation ceremonies;
- vi) the Aboriginal life pattern had a marked polarity; the population aggregated and dispersed in successive phases. Periodicity and length of the phases varied considerably, but generally, the local group clustered in good times and dispersed in the bad;
- vii) the degree of interaction between groups depended on general ecological conditions and good seasons, on population density and a tendency towards the conservation of effort; e.g. by division of labour and the ethic of reciprocity (Peterson 1976:58; Stanner 1965:3-7). Localised seasonal abundances, such as evidenced by the Bogong moth feasts (Flood 1980), the Bunya nut festivals (Morwood 1987), the annual mutton bird migration (Threlkeld in Gunson 1974:65, Lampert 1966:97), would also have encouraged interaction, as would have the (less predictable) 'windfall' resources such as beached whales reported in the Sydney region (Tench 1793[1961]:176, Bradley 1786-92:120, Collins 1798 [1975]:490, Threlkeld in Gunson 1974:55);

On these bases, certain parameters for the current analysis are clear.

- Distinct bands, speaking separate languages or dialects would have been identifiable, and have inhabited discrete tracts of land. Given the relatively rich ecological conditions of the Sydney coastal region, each of these groups could have maintained a degree

of economic independence, since their ranges would have provided for the basics of survival (Stanner 1965, Godwin 1990).

- These bands would have been part of a larger clan group, whose estate would have represented the extent of the land inhabited by that larger group of people with economic and ritual rights. This larger group is assumed here to be the language group.
- Interaction between the clan groups would have occurred on the periphery of these estates for economic activities. Shared ritual responsibilities would have required interaction between these sub-groups of the larger culture area, and social conventions would have controlled such visits. Ritual and economic relationships between people and land (Hiatt 1962:284, Peterson 1985:24), and the distinction between land-using and right-holding groups would have regulated this interaction.
- Interaction between clan (or language) groups to hold ceremonies indicates larger scale group cohesion of the culture area population, and there is evidence that considerable stability in social activities is thus achieved; e.g. 'correct' designs are maintained on Pukamani Poles amongst the Tiwi by supervision from neighbouring (totemically related) individuals (Hart 1970). Hiatt (1965) records similar 'owner/manager' interaction in Gidjingali ceremony, as they have been made to bark painting production (Morphy 1977, 1989; Taylor 1987, 1989). Collins commented (1798 [1975]:467) on an initiation ceremony which could not commence in the absence of elders from adjacent 'tribes'. Similar social customs (as manifested by ceremonial behaviour) were observed across the Sydney region, and these appear to have relied on ritual relationships with neighbouring groups.

Specifically anthropological descriptions of social organisation in the Sydney region were made by R.H. Mathews (although see comments above). He states that all members of the *Darkingung* community (in the north-west of the region) were segregated into two moieties (phratries) *Dilbi* and *Kuparthin*, whose names correspond with the Kamilaroi (Mathews 1897e:161, 170). Each moiety was further subdivided into two sections, for the *Darkingung* these were named *Bya* and *Kubbi* (for the former moiety) and *Ippai* and *Kumbo* (for the latter). On the basis of these moieties and sections, totemic affiliation and marriage relations were determined. While totemic affiliation controlled many social interactions, it did not dictate general economic activities; 'members of each group, and consequently of the totems also, [were] found in all the local divisions of the tribe' (Mathews 1897e:159).

Mathews notes that the *Darkingung* tribe had 'uterine [matrilineal] descent' (Mathews 1897e:170), with a dispersal of male and female members of the same totem. Conversely, Mathews records that the groups in the south-west of the region – the *Gandangara* speaking tribes (which by implication include the *Darug*: see below) had patrilineal descent, but that the women married out of the group into which they had been born (Mathews and Everitt 1900:264). Here, while the females of the same totem were dispersed by marriage, the males of the same totem, would have co-resided: there was patrilineal descent and virilocal residence.

Peterson (1986:17) indicates that these post-marriage arrangements would have resulted in two different types of residential groups, with the *Darkingung* exhibiting characteristics of the mixed group and the *Gandangara* adhering to the characteristics of a kin group. Peterson argues that the latter situation was the culturally prescribed ideal, both anthropologically (e.g. Radcliffe-Brown 1931) and by individual adult men. The former, however, was probably more common. Most groups probably oscillated between the two, depending on economic obligations and ritual (Peterson 1986:26).

Several early commentators noted an inequality amongst the 'tribes' around Port Jackson, stating that the *Cammaraygal* (from the North Shore) were the largest and strongest group by

the ‘influence of their numbers and muscular appearance’ and that ‘there is no doubt of their decided superiority over all tribes with whom we were acquainted’ (Collins 1798[1975]:453). These comments were recorded after the 1789 epidemic, which (as mentioned above) greatly affected the groups on the southern shore of Port Jackson. This relative ‘superiority’ may have reflected the survival of an intact band of initiated people upon whom the relict bands depended for continuing social activities and cohesion. However, the possibility of one group in the region exerting overriding control in the social sphere may be of relevance.

Linguistic Evidence

The linguistic evidence for the region indicates the presence of discrete language groups (Capell 1970; Dawes 1790; Mathews 1897c, 1901; Mathews and Everitt 1900; Threlkeld in Fraser 1892; Tindale 1974; Troy 1990). This evidence is sketchy, and there are conflicting views on how it can be interpreted (Kohen 1986, 1988; Kohen and Lampert 1988; Ross 1976, 1988). The boundaries between these different language groups, as well as inter-relationships between these create the greatest disagreement in archaeological interpretation.

The geographic distribution of linguistic groups within the region relies heavily on late nineteenth century research into relict groups and regions, i.e. *Kamilaroi* and *Wiradjiri* (e.g. Mathews 1897c, 1897e, 1903, 1904). Linguistic evidence collected at contact was largely in the form of unprovenanced word lists (Collins 1798: Appendix XII, Hunter 1793[1968]:523, Tench 1793[1961]:291-3). The Dawes manuscript provides a detailed and comprehensive analysis of the Sydney language - and details interaction between several notable Sydney Aboriginal people such as *Barangaroo* and *Benalong* and their wives (e.g. Dawes 1790:14).

Lancelot Threlkeld arrived in Sydney in the 1820’s and completed a detailed and provenanced grammar of the *Guringai*³ language sometime thereafter (Capell 1970). This agrees with a vocabulary by J.F. Mann (Capell 1970), completed in the 1870’s and based on the information of Long Dick, son of *Bongaree*⁴. The Dawes, Threlkeld and Mann manuscripts, while giving detailed vocabularies, do not indicate the geographic distributions of these languages.

Mathews’ earlier work in the region defined three distinctive languages, the *Darkingung*, *Gandangara* and *Tharawal*. *Darug* was defined as a dialect of *Gandangara* (Mathews and Everitt 1900:265). Mathew’s definition provided an incomplete coverage of the region, specifically not including the coastal area north the Hawkesbury and possibly not north of Port Jackson (Capell 1970). Mathews placed the *Darkingung* to north of the Hawkesbury River in the drainage basins of the Macdonald and Colo Rivers, Putty Creek and Wollombi Brook (Mathews 1897c:1). The *Gandangara* were said to have existed in ‘the coastal district ... from the Hawkesbury River to Cape Howe, extending inland to the Blue Mountains, and thence southerly ...’ (Mathews and Everitt 1900:262). The *Tharawal* speaking people were spread over the coast from Port Hacking to Jervis Bay ...extend[ing] inland for a considerable distance (Mathews 1901:127). Mathews recorded *Darug* dialect being spoken at ‘Campbelltown, Liverpool, Camden, Penrith, and possibly as far east as Sydney, where it merged with *Thurrawal*’ (Mathews and Everitt 1900:265).

Capell linguistic analysis (1970) concluded that four language groups (each with varying numbers of dialects) existed in the region at contact. These were *Guringai*, *Darkingung*, *Darug* and *Tharawal* (Figure 3.1). The presence and location of the *Gandangara* language is not discussed in Capell’s paper.

The *Guringai* inhabited the coast between Port Jackson and somewhere north of Wyong, where it met the *Awaba* language (Threlkeld in Gunson 1974, Mann 1885).

The *Darkingung* speakers occupied land to the west of the *Guringai*, north of the Hawkesbury River (following Mathews 1897c). The boundary between the *Guringai* and *Darkingung* is along Mooney Mooney Creek (cf. Kohen 1986, Smith 1983) and thence northerly (Capell 1970:22).

³The orthography for these languages varies between sources. Unless being directly quoted the spellings used throughout this thesis will be *Guringai*, *Darkingung*, *Darug*, *Tharawal* and *Eora*.

⁴*Bongaree* was ‘king ... of the Pittwater tribe’ (Macquarie 1822:258) or ‘Broken Bay tribe’ (Barratt 1981: Plate III).



Figure 3.1: The four language areas defined for the region (after Capell 1970: Figure 1).

The *Guringai*'s western neighbours south of the Hawkesbury were the *Darug* speakers. This boundary is placed along Berowra Creek and the Lane Cove River to the northern shore of Port Jackson.

Darug speakers inhabited the area south of the Hawkesbury River covering the Cumberland Plain and including the upper reaches of the Georges and Nepean Rivers. South and/or east of the Georges River between the *Darug* and the coast were the *Tharawal* speakers, their southern boundary occurring well south of this study area (cf. Tindale 1940).

Between the *Guringai* and *Tharawal* on the coast, Capell places a dialect 'or even sub-dialect' (1970:22) of *Darug*, which he calls the 'Sydney' language, described elsewhere as the *Eora* (Tindale 1974, Troy 1990). The extent of this dialect was 'limited to the peninsula on which

Sydney now stands' (Capell 1970:22). This designation is based primarily on the fact that both *Tharawal* and *Guringai* are 'affix-transferring' languages, but that *Darug* is not.

A problem with Capell's organisation is the nature of several of his boundaries: specifically smaller water courses - such as Mooney Mooney and Berowra Creeks. In many coastal areas of Australia, tribal boundaries occur at the edges of catchments (viz. Peterson 1976, Tindale 1974) rather than dissecting catchments and logically - band ranges. Mathews' (1897c) description of *Darkingung* territory supports a watershed model, and certainly in the rugged and drier area occupied by the *Darkingung*, it makes sense that the 'heartlands' of these clan estates has ridgelines as their boundaries.

Many of the ridgelines around the Sydney region, e.g. the Boree Track and Kulnura/Peat's Ridge, were documented access routes (and see Ross 1976: Map 2.1). Due to the rugged sandstone landscape, movement around the region would have been mostly by way of ridgelines. It makes sense that major access routes would have occurred in 'zones of intermediacy' (Stanner 1965:12) - on the periphery of a clan's estate (and see Layton 1989:2, 1992b:9). It would seem unlikely that boundaries between clan estates and language groups would have been creeklines, unless these were major river systems (such as the Hawkesbury or Port Jackson) whereby access and crossing, required a canoe.

Conversely, the linguistic evidence indicates that Broken Bay, a significant physical barrier, was not a language boundary. The Hawkesbury River near Wiseman's Ferry, does appear to have been a language boundary (between *Darkingung* and *Darug* speakers), while ethnohistoric evidence suggests that the people on the Hawkesbury in the vicinity of Richmond Hill lived on both sides of the river - '[o]n the opposite bank of the river they had *left* their wives and children' (Tench 1793[1961]:230, *my emphasis*). In the south of the region, the Georges River appears to have been the boundary between the *Eora* and *Darug*, and the *Darug* and *Tharawal*.

There is no dispute that distinctive linguistic divisions existed within the region at European contact. The geographic distribution of these groups is less clear.

To the north and south of the region there is firm linguistic evidence for a separation of coastal and hinterland groups; the *Darkingung* and *Guringai* in the north and the *Darug/Gandangara* and *Tharawal* in the latter. In the centre of the region, primarily covering the Cumberland Plain and Sydney peninsula, there is a suggestion of linguistic continuity between the coast and Cumberland Plain. For the purposes of this study, the distribution of the four language groups (Figure 3.1) present at contact, the *Darkingung*, *Guringai*, *Darug* and *Tharawal*, will be tested.

Land use strategies and habitations

Early sources suggested that there was little contact between the coastal and inland tribes (e.g. Tench 1793, Collins 1798[1975]). This was based on differences in economic behaviour as well as on findings made during early explorations that the Port Jackson Aborigines had no knowledge of the country north or west of Parramatta, nor south of the Georges River (Phillip 1792, Tench 1793, Barrallier 1802). A complete separation of 'hunters and fishers' was reported, presumably in terms of coastal and inland groups, and some archaeological interpretations agree with this (Ross 1976, Kohen 1986, Kohen and Lampert 1988). Numerous references indicate that specific adaptation to different resources existed.

Along the coast, the protein portion of the diet was seen as being entirely based upon seafood. Captain Cook noted that 'shellfish is their chief support yet they catch other sorts of fish' (Cook [Beaglehole ed.] 1955:312). Collins gained some insight into the range of foods eaten;

Fish is their chief support ... the woods, exclusive of the animals which they occasionally find in their neighbourhood, affords them little sustenance; a few berries, the yam and fern root, the flowers of the different *Banksia*, and at times some honey, make up the whole vegetable catalogue. ... The wood natives also make a paste formed of the fern-root and the large and small ant bruised together; in the season they also add the eggs of this insect. (Collins 1798[1975]:461-2)

Archaeological research indicates that this seafood bias in the coastal diet has been overstated (McDonald 1992a, Megaw 1968a). At the Angophora Reserve site, maritime resources (i.e. fish and shellfish) contributed to less than 8% of the calorific content of food remains (Wood 1989:82), while Attenbrow's Port Jackson work has similarly identified the importance of terrestrial and avian fauna in the dietary remains of coastal rockshelter sites, particularly at Balmoral Beach (Attenbrow 2002: Table 7.2).

Ethnohistoric reports indicate considerable diversity in adaptations to environmental conditions. Barrallier in his expedition through *Darug* and *Gandangara* territory in the early nineteenth century, describes the swamps in the Nepean River area as being excellent sources of fish, shellfish and 'enormous' eels and he states that;

the people from this area usually fed upon opossum and squirrels, which are abundant in that country, and also upon kangaroo rats and kangaroo, but they can only catch this last one with the greatest trouble, and they are obliged to unite in great numbers to hunt it. (Barrallier 1802 [1975]:2-3)

Such a kangaroo hunt, with a large group using fire, spears and 'tomahawks' was described near a Menangle Swamp. The participants were spaced at '30 paces ... [and] formed a circle [covering] an area of 1 or 2 miles' (Barrallier 1802[1975]:3). In the order of 100 people appear to have been involved in this hunt, suggesting co-operation between several bands.

Lizards and grubs, 'particularly those which are found in the trunks of trees' (Barrallier 1802[1975]:6, Collins 1798[1975]:462), were also documented as part of the diet. For the purpose of collecting these grubs (*Cahbrogal*) a specific utensil was used, this being described as:

a switch about twelve inches long and of the thickness of a fowl's feather ... One of the extremities of this stick is provided with a hook. ... [which is used upon finding evidence of these grubs in the bark of trees having] widen[ed] the hole ... with their axe ... dip their switch into the hole, and, by means of the hook, draw it out, and eat it greedily. (Barrallier 1802[1975]:6)

Other specialised inland adaptations to localised resources include 'squirrel traps' in hollow trees and 'decoys for the purpose of ensnaring birds' (Tench 1793[1961]:154-5). These decoys were assessed as having great utility as they were full of quail feathers. These structures were described as complex (see also Phillip in *HAR*, 1:156 and Collins 1798[1975]:462) and were made of reeds and 'underwood'. They were described as being 'long and narrow, shaped like a mound raised over a grave; with a small aperture at one end for admission of the prey; and a grate made of sticks at the other' (Tench 1793[1961]:154-5). One such structure described by Collins 'was between 40-50 feet long' (1798[1975]:462). He also describes animal and bird traps near inland lagoons as consisting of excavated holes with camouflaged tops.

Early accounts remarked on the tree climbing facility of the inland tribes' men (Hunter 1793, Tench 1793, Collins 1798, Barrallier 1802). This was done for the purpose of obtaining possums (usually with assistance of smoke) and was achieved by cutting notches for toeholds 'with a stone hatchet' (Hunter 1793[1968]:430), Tench 1793[1961]:233). Kohen (1986:46) argues that possums and other tree dwelling animals were the woodland tribes' staple, and that edge-ground hatchets were the dominant subsistence item in the inland toolkit. With the exception of hatchet heads, evidence for these types of resources procurement is not preserved the archaeological record. Bones (terrestrial or maritime) are rarely recovered from Cumberland Plain open sites contexts (e.g. JMcD CHM 2005a, b).

Living sites

Most early references focus on the bark huts used as Aboriginal dwellings across the region. The coastal versions of these were described as being larger than the inland ones, being 'formed of pieces of bark from several trees put together in the form of an oven with an entrance ... large

enough to hold six to eight people' (Collins [1975]:460). Worn-out canoes were often recycled for this purpose. Tench described a group of five such huts on the northern arm of Botany Bay as a village (1793[1961]:210). Given the above estimate of the holding capacity of these, groups of up to 40 people could have been so accommodated. There are other references to 'villages' on the sea coast around Botany Bay and Pittwater (e.g. Collins 1798[1975]:47, Worgan 1788[1978]:26).

The huts of the 'woodsman' (Collins 1798[1975]:460), were described as being made of the bark of a single tree, bent in the middle and placed on its two ends on the ground 'exactly resembling two cards, set up to form an acute angle' (Tench 1793[1961]:154; and see Phillip 1789[1970]:55-57) and 'affording shelter to only one miserable tenant' (Collins 1798[1975]:460). These shelters (*gunyahs*) would be grouped together, up to a total of nine (Barrington 1802:20).

Observers also noted the use of rockshelters:

They appear to live chiefly in the caves and hollows of the rocks, which nature has supplied them with, the rocks about the shore being mostly shelving and overhanging so as to afford a tolerable retreat. (Barrington 1802:20)

Collins also commented on the occupation deposit found in shelters, stating:

these proved a valuable resource to us, and many loads of shells were burnt into lime, while other parts were wheeled into gardens. (Collins 1804[1910]:306)

The bark constructions in the open have not survived in the archaeological record. The fact that the majority of Aboriginal occupation evidence for the region derived from shelter sites at the time this thesis was written (cf. chapter 4) is significant, given that shelters may not have been the focus for habitation at contact – or indeed the last millennium (JMcD CHM 2005a, b, c).

Material culture

The material culture of the Sydney region is poorly represented in major museum collections⁵ (Lampert and Konecny 1989). Drawings and descriptions in journals (e.g. Watling 1794, White 1790[1962] and see Barratt 1981) are thus the best source of this information. These have been discussed and illustrated extensively in previous research (Attenbrow 2002; Kohen and Lampert 1988; Lampert 1988; Lawrence 1968; McBryde 1979, 1989; Megaw 1967, 1969, 1993; Ross 1976) and only relevant aspects will be described here.

Of interest here are regional and localised differences noted by early diarists, in particular, those aspects which may be depicted in the art.

Items of material culture include those used for fishing, hunting and collecting as well as weapons. The men's repertoire included spears (hunting, fishing and ritual), spear throwers, clubs, 'swords' or boomerangs, shields (bark and wooden), and stone hatchets (Bradley 1786-92[1969]:121-8; Collins 1798[1975]:487; Hunter 1793[1968]:55; Tench 1789[1961]:50, 1793[1961]: 184,191,200; White 1790[1962]: 152). Women's belongings included fishing hook and line, digging sticks, various bark items (e.g. dilly bags, fishing tackle, water baskets), wooden bowls and large shells used as containers (Hunter 1793[1968]:63; Tench 1793[1961]:143-6, 186; White 1790[1962]:157, 201; Threlkeld in Gunson 1974:54, 66-8; Bellinghausen in Barratt 1981:35).

⁵There are sizeable Australian collections in the British and Pitt Rivers Museums, but the number of items deriving from Sydney - this point of first contact with European settlement, is not large. Scattered items have been discovered in obscure museums around the world (Coates 1999).

Shields

Two types of shields were described in contact Sydney. The first was quite light, being made of bark. This type was used by children in practice combat, in defence against sharpened reeds '[with] which they are soon expert' (Collins 1798[1975]:466).

Threlkeld describes most comprehensively the construction of the wooden shields, albeit from around the Lake Macquarie area (*Awabagal/Guringai* tribes). These were 'three feet long by eighteen inches ... lozenge shaped, pointed at top and bottom, and pigeon breasted rather than flat. ... The shields are always painted with white pipeclay and are generally ornamented with a St George's Cross, formed by two bands two or three inches wide, one vertical the other horizontal, coloured red ...' (in Gunson 1974:68). Rossiysky describes the wooden shields from the Sydney area very similarly, although noting that 'they are daubed with *various* red and white figures' (in Barratt 1981:23; *my emphasis*). Bellinghausen adds that these shields had a 'dry white colouring substance over which was painted red stripes' (in Barratt 1981:41).

No mention was made in any of the early references to shield designs varying across the region, although Campbell's illustration of a *Yoo-lang* ceremony (1798[1975]: Appendix 6; Plates 4, 5 and 6) shows a variety of shield designs, none matching that of Threlkeld (and see shield designs and other material objects depicted in drawing of Bennelong in McBryde 1989: Plate 19).

Further reference is made to this item of material culture in the synchronic analysis of the art. The shield motif, particularly in the engraved assemblage, is dispersed widely along the coastal strip.

Ceremonial behaviour and initiation

The evidence for local ceremonial behaviour is of primary importance in assessing the nature of social interaction across the region. Linguistic differences indicate a separation of groups across the landscape. The ceremonial activities observed indicate that there was an overriding similarity and larger scale group cohesion amongst the peoples of this culture area. These people, however, spent most of their time in distinctive areas, speaking different languages and/or dialects.

Corroborees were observed in the first years at the settlement, and there is evidence that both genders took part in these at varying stages (Collins 1798[1975]:486). Dancing and singing played an important part in ceremonial behaviour as did body painting.

All groups from the hinterland were described as having very similar *bungung* (e.g. Mathews 1897c, 1897e). The main reason cited for these ceremonies was the initiation of young men. A subsidiary reasons was the resolving of 'tribal wrongs which may have been perpetrated since the last initiation gathering' (Mathews 1897c:10).

The ethnohistoric and later reports all describe the initiation ceremonies as involving a number of neighbouring 'tribes' and large gatherings of people (Collins 1804[1910]:311; Mathews 1897c:1-2; Mathews and Everitt 1900:276). Men only took part in the initiation of young men. The women remained in a separate camp (Mathews 1897c, Mathews and Everitt 1900) where it could be presumed (Bell 1983) that they undertook ceremonies of their own. Indeed Mathew's description of the women during the *bungung* ceremony, suggests just this:

Every morning the mothers of the novices, accompanied by all the old women of the tribes present, repair to the *watyoor* [a specially prepared area], and light one or more fires in the cleared space, around which they sit and sing songs which have reference to the novices. ... These women are collectively known as the *yanniwa*, and the young women or children, or any of the men, are not permitted to go near them when assembled at the *watyoor*. (Mathews 1897c:7)

Mathews describes *Darkingung* and *Gandangara* ceremonies as involving the construction of bora rings and ground sculptures, the latter usually involving large earthen sculptures of *Daramulan* the ‘sky god’ (Mathews 1904:see below). There is no suggestion amongst any of these sources that rock engravings of such figures served this same purpose.

Collins’ description of a *Yoo-lang* tooth avulsion ceremony (1789[1975]:466-86; Plates 1 - 8) is based on an eyewitness account made on the 25th January 1795. The ceremony was held in Farm Cove in *Cadigal* territory, and was presided over by the *Cam-mer-ray* elders. Also present was ‘*Pemulwoy* - a wood native’ (Collins 1798[1975]:466) and leader of the Botany Bay *Bidiagal* tribe (Bridges 1970, Dawes 1790). No bora ring was constructed, or earth sculptures built, but an ovoid area was cleared.

Mathews described tooth avulsion for all initiated males in *Darkingung*, *Gandangara* and *Tharawal* speaking areas (Mathews 1897c, Mathews and Everitt 1900). Collins (1798[1975]) also described the practice in the Sydney *Eora* area. Phillip described the *Guringai* Pittwater people as also ‘missing a front tooth’ (HR NSW 1[2] 1893[1978]:131). However, there is conflict in the ethnographic literature and ethnohistoric documentation. Mathews is unequivocal in his description of tooth avulsion taking place, specifically amongst the *Darkingung* and the *Gandangara*. He says of the former:

the time spent at [these ceremonies] occupies about a fortnight. ... About the middle of this period, preparations are made for the extraction of one of the novice’s upper incisor teeth. (Mathews 1897c:7) and;

Early the next day the boys ... are shown a colossal horizontal image of *Dharamulan* ... After that, one of the front upper incisors is punched out of each novice in succession. (Mathews and Everitt 1900:279)

On the other hand, one of the major stated differences between the coastal and inland people was that the latter did not practice tooth avulsion (Ross 1988:48, 1990:3-4). The statement is based on comments by Tench (and Phillip HR NSW 1[2] 1893[1978]:131), made on an early journey to the Nepean/Hawkesbury, in which two natives met with on the River had not ‘suffered the extraction of a front tooth’ (Tench 1793[1961]:230).

The ethnohistoric sources are equivocal. Most sources only commented on the rare *presence* of both teeth, rather than the more common absence. Tench, for instance, comments that ‘the deficiency of one of the fore teeth of the upper jaw ... we have seen in *almost* the whole of the men’ (Tench 1793[1961]:46; *my emphasis*). Phillip also noted (1789[1970]:42) that ‘several old men were seen [in an excursion to Broken Bay] who had not lost the tooth nor had their noses prepared to receive that gross appendage [long bone or stick]’.

This evidence is inconclusive and could be interpreted in three ways. Either;

- i) the people located in Port Jackson with both their front teeth were visiting the coast from inland tribes; or,
- ii) tooth avulsion was not universal on the coast or inland; or,
- iii) the men seen on the coast with both upper incisors had not yet been initiated [see Collins’ comment about a novitiate who fled in fright during his *Yoo-lang* when it came time to remove his tooth (Collins 1798[1975]:481)].

A gender and location specific trait was described for the coastal women in Sydney. There are no conflicting reports on this practice. This form of social identification involved the removal of the

first two joints of the little finger on the left hand. There is no evidence that this was initiatory, in the normal sense of the word, since by all accounts it was performed very soon after birth;

the operation is performed when they are very young, and is done with a hair, or some other slight ligature. This being tied around at the joint, the flesh soon swells, and in a few days ... the finger mortifies and drops off. (Collins 1798[1975]:458)

Collins interprets this as a practical solution: ‘these joints of the little finger were supposed to be in the way when they wound their fishing lines over their hands’ (Collins 1798[1975]:458). It also been interpreted ‘fishing magic’ (Leroi-Gourhan 1968, Marshack 1972):

[the mortified section] was taken out into the bay, and with great solemnity, committed to the deep. The belief was that the fish would eat this part of the girl’s finger, and would ever, thereafter, be attracted to the rest of the hand from which it had come. Thus [she] would always have success at fishing because of the peculiar lure in her fingers. (Scott 1929[1982]:4)

Whatever the cause, this form of mutilation readily identified the women from the coastal tribes, and is firm evidence for the maintenance of group identification at a personal level. There is a shelter site near Mackerel Beach (Pittwater) in which the (left) hand stencils have been identified as female, based on the fact that the little finger is extremely short.

These issues were discussed in some detail in the original research since the practices of tooth avulsion, bodily mutilation and body decoration are excellent examples of a public information system (Wobst 1977) operating in contact Sydney. Indeed, in terms of boundary maintenance and group identification, these means would have been extremely effective. If tooth avulsion did occur in one part of the region and not in another, one might assume that a significant cultural boundary, or at least group affiliation, existed and was being demonstrated. Such a boundary might be reflected by an art style boundary.

Culture Heroes

Mathews prodigiously documented ceremonial events practiced in the late nineteenth century, which he described as the Bora Religion.

Biaime is the principal hero in the Bora mythology (Mathews 1904:340) and is said to have had his home in an outcrop of granite near the town of Byrock, approx 740km from Sydney. The outcrop was called *Bai* by the Aborigines, this word ‘signifying the semen of men and animals’ (Mathews 1904:340). *Dharamulan* was:

a sort of half brother or near relative of *Biaime*’s. His name is made up from *dhurra*, thigh, and *mulan*, one side, the whole name meaning leg-on-one-side, as he is said to possess one leg only. ... He has a voice like rumbling distant thunder. It fell to his lot to separate the youths from their mothers and teach them the *Burbung* ceremonies. ... A bullroarer is also frequently called *Dharamulan*, its humming sound ... represents his voice. ... he has the magical power of changing his shape, and making his body smaller and larger at pleasure ... (Mathews 1904:343-5)

Radcliffe-Brown (1930) describes the myth of the rainbow serpent as being ‘the belief in a gigantic serpent which has his home in deep and permanent water holes and represents the element of water which is of such vital importance to man in all parts of Australia’ (Radcliffe-Brown 1930:343). In New South Wales he states:

[the] cult of the *karia* (rainbow serpent) was often an element of the Bora or initiation ceremonies of the NSW tribes. ... Many of the sacred Bora grounds had representations of the serpent in the form of a sinuous mound of earth up to 40 feet or more ... beliefs about the rainbow serpent were explained to the younger men, [as they were for] *Biaime* [whose

representation in earth occurred at] practically every Bora ground ... (Radcliffe-Brown 1930:345)

Mathews (1904) also describes a *Darkingung* story with a 'mythical malevolent creature resembling a man whose body had a red glow like burning coals, who had his abode in rocky places on the sides and tops of mountains. ... His name was *Ghindaring* (Mathews 1904:345). The *Gandangara* and *Tharawal* had an aquatic monster called *Gurungaty*, who 'resided in deep waterholes, and would drown and eat strange blacks, but would not harm his own people'. The *Tharawal* had another fabled monster *Mumuga*, who possessed great strength and resided in caves in mountainous country. He had very short arms and legs, with hair all over his body but none on his head. While being unable to run very fast, 'he evacuates all the time as he runs, and the abominable smell of his ordure overcomes the individual, so that he is easily captured' (Mathews 1904:345).

Art

The early accounts of rock art in the region are minimal. None of the early writers sought informed opinion about the art they observed, and the conclusion most often drawn was that these were the doodles of children. One reference (Angas 1847 [1969]) suggests that these sites were the domain of the local 'priests' (see below), but this was an observation made well after the impact of contact on social organisation within the region. It was only much later (e.g. Elkin 1949, McCarthy 1947b, 1956, 1959a) that ceremonial significance was attributed, by ethnographic analogy, to the engraved art in the region.

Arthur Phillip recorded the earliest reference [on 22nd April 1788] to the widespread distribution of engraved Aboriginal art:

In all the excursions of Governor Phillip, and in the neighbourhood of Botany Bay and Port Jackson, the figures of animals, of shields, and weapons, and even of men have been carved upon the rocks, roughly indeed, but sufficiently well to ascertain very fully what was the object intended. Fish were often represented, and in one place the form of a large lizard was sketched out with tolerable accuracy. On the top of one of the hills the figure of a man, in the attitude usually assumed by them when they begin to dance, was executed in a still superior style. (Phillip 1789[1970]:58)

Phillip expressed surprise that the local inhabitants had developed an art form prior to other aspects of 'civilisation', illustrating the settlers' total incomprehension of the nature of the society confronting them:

That the arts of imitation and amusement should thus in any degree precede those of necessity seems an exception to the rules laid down by theory for the progress of invention. But perhaps it may better be considered proof that the climate is never so severe as to make provision of covering and shelter of absolute necessity. Had these men been exposed to a colder atmosphere, they would doubtless have had clothes and houses, before they attempted to become sculptors. (Phillip 1789[1970]:58)

Other early commentators also noted the presence of the engravings around the settlement. In Botany Bay 'on many of the rocks are to be found delineations of the figures of men and birds very poorly cut' (Tench 1789[1961]:79). In Port Jackson:

various figures [are] cut on the smooth surfaces of large stones. They consisted chiefly of representations of the natives in different attitudes; of their canoes; of several sorts of fish and animals, and considering the rudeness of the instruments with which the figures must have been executed, they seemed to exhibit tolerably strong likenesses. (White 1790[1962]:141)

George Angas ‘discovered’ the engravings in the 1840’s (Angas 1847[1969]:201). He and one of his friends took ‘Old Queen Gooseberry’ (*Bungaree’s* wife) as a guide to visit numerous groups of carvings on North Head, and to tell them ‘what she knew’ about them (Angas 1847[1969]:202). Angas says ‘[a]t first the old woman objected, saying that such places were all *koradji* or ‘priests’ grounds, and that she must not visit them; but at length, becoming more communicative, she told us all she knew and all that she had heard her father saying about them’ (Angas 1847[1969]:202). Unfortunately, Angas does not record the stories he was told.

The systematic recording of engraving sites (including their geographic locations) did not commence until the late 19th century, when R.H. Mathews (e.g. 1895a, 1895b, 1895c, 1895d, 1896b, 1896c, 1897a, 1897b, 1897d, 1898a, 1899) and W.D. Campbell (1899) became interested in the task.

A comparison of Mathew’s sketches of earthen sculptures (cf. Mathews 1896a: Plate 1) with the Sydney style engravings does reveal some similarities: both are simple outline depictions, mostly large, of anthropomorphs, birds and animals. Elkin (1949) and McCarthy (1961) made much of these similarities in their interpretations of the Sydney art. In particular, Mathews’ and Howitt’s documentation of the Bora Religion and its principal mythical ‘culture heroes’, the rainbow serpent, *Dharamulan* and *Biaime* (Howitt 1904; Mathews 1904, 1908; Radcliffe-Brown 1930) were pivotal to McCarthy’s interpretations of the Sydney engravings (e.g. 1956, 1959a, 1961).

Elkin states that rock engravings ‘were cut to serve as records and symbols of historical, moral and totemic import which could be and were interpreted’ (Elkin 1949:32). The work of Elkin (1949), McCarthy (1961) and Sim (1966a) has been interpreted as indicating that the second part of male initiation ceremonies took place in rock engraving galleries (Morris 1978:50), specifically those assemblages containing depictions of mythical beings (Elkin 1949:135, McCarthy 1959a:213, Morris 1978:43).

Morris explains Collins’ 1795 eyewitness account of such a ceremony (which does not mention the use of rock engravings) as being only a partial record of the overall event with the more secret-sacred aspect taking place in the absence of women and Europeans, presumably on a nearby engraving site. Collins account, however, describes only men and the novitiates as being present at the tooth avulsion ceremony that he witnessed (1798[1975]:467-85). Interestingly, Mathews also speculates that Collins only witnessed part of the entire ceremony, on the basis that no bora ring or earthen sculptures were mentioned in Collin’s account (Mathews and Everitt 1900:281).

An alternative but equally appropriate interpretation is that while the ceremonies within the region were analogous, they were not identical.

The unsubstantiated ethnographic analogies such as those made by Elkin (1949), McCarthy (1961), Sim (1966a) and Morris (1978) about engravings in the region must be considered as tenuous. It is possible that the engravings were connected with ritual behaviour, but this was not documented. The fact that eyewitness accounts of ceremonies (e.g. Collins 1798[1975]) and ethnographic descriptions (Mathews and Everitt 1900) do not mention the art as having a role in these ceremonies tends to weigh against it - at least at European contact.

Body marking and personal attire

Ambition must have its badges, and where cloathes (sic) are not worn, the body itself must be compelled to bear them. (Phillip 1789[1970]:42)

It is obvious from early accounts that the Sydney Aborigines practiced, and had a considerable sense of, body decoration.

Notwithstanding the disregard they have shewn for all the finery we could deck them with, they are fond of adorning themselves with scars, ... It is hardly possible to see anything in

human shape more ugly, than one of these savages thus scarified, and farther ornamented with a fish bone stuck through the gristle of the nose. The custom of daubing themselves with white earth is also frequent among both sexes ... (Tench 1789[1961]:47)

The references to body painting indicate that women and men had equal access to pigment materials. It may be assumed, then, that both genders indulged in other forms of artistic behaviour - such as the pigment art - using these materials.

While there is some question that the cicatrices observed were purely for decoration (cf. Mathews 1898b, 1904), other aspects of personal adornment can have had no other purpose:

To their hair by the means of yellow gum, they fasten the front teeth of kangaroo, and the jawbone of a large fish, human teeth, pieces of wood, feathers of birds, the tail of the dog, and certain bones taken out of the head of the fish, not unlike human teeth [otoliths?]. The natives who inhabit the south shore of Botany Bay divide their hair into small parcels, each of which they mat together with gum, and form them into lengths like the thrums of a mop. (Collins 1798[1975]:457)

Collins further described the use of pigments for body decoration 'on particular occasions', stating that red signified fighting, while white was used for the more 'peaceful amusement' of dancing (Collins 1798[1975]: 457). He also gave the fullest description of the nature of body decoration, and indicates that there was considerable variation present (see also illustrations by the anonymous Port Jackson painter, in McBryde 1989: Plates 9, 13, 31, 32). The descriptions indicate that body painting designs may have personal (i.e. not a controlled group schema) although this is not certain. He says:

The fashion of these ornaments was left to each person's taste; and some, when decorated in their best manner, look perfectly horrible ... In general waved lines were marked down each arm, thigh and leg; and in some the cheeks were daubed; and lines drawn over each rib, presented to the beholder a truly spectre-like figure. ... Both sexes are ornamented with scars upon the breast, arm and back ... in some instances these ... resemble the feet of animals. (Collins 1798[1975]:457-8)

There is extensive evidence that body scarification was widespread in the Sydney region (see illustration by the anonymous Port Jackson painter in McBryde 1989: Plates 9, 11, 31; and Megaw 1993: Figure 14a).

Mathews' (1904) work around the Upper Lachlan River indicated that body scarification was related to totems and food avoidance. The position and extent of the scarring was regulated by the customs of the tribe to which the novice belongs. Mathews indicated that scarification was an ongoing process for identifying which foods were no longer taboo. The position of the scars signified the type of animal being released from prohibition. The goanna was marked on the shoulders below another row of scars which denoted the emu, tree grubs were marked by vertical cuts on the left arm, the carpet snake on the chest, below collar bone, and so on (Mathews 1904:262-269).

Mathews does not describe whether the order is dictated by the individual's totem, although it could be assumed that this would be the case. It is likely then, that different moieties/sections would be differently scarred, and that this would have acted as information to the general group about an individual's totemic affiliations, as well as level of initiation. It too would have been a facet of social cohesiveness.

Items of apparel observed around the region included various bands worn around the head, neck and waist (Collins 1798[1975]:459, 465-6; Tench 1793[1961]:186) and Collins also described the ritual gear associated with tooth avulsion. Each novitiate, after tooth removal, was given 'a girdle around his waist in which was stuck a wooden sword; a ligature was put around his head, in which were stuck slips of the grass-gum tree: which, being white, had a curious and not unpleasing effect' (1798[1975]:484-5, Appendix 6; plate 8).

There were rare reports of possum skin rugs being used in the region. Phillip described one such cloak found near the Hawkesbury River as being ‘made of the skins of the opossum and flying squirrel, very neatly sewed together, the inside ornamented in diamonds of curved lines, by raising the skin with the point of a small bone, which is made sharp for the purpose’ (HR NSW 1[2] 1893[1978]:310). This example was apparently much smaller than those observed on the southern Tablelands (Flood 1980), being described by Bradley as of the size ‘to cover a child’ (1786-1792[1969]:167-8). The paucity of references to these (e.g. also White 1790[1962]:156; Collins 1798[1975]:486) suggests that the items were rare (cf. the number of references stating that the Aboriginal people wore nothing e.g. HR NSW 1[2] 1893[1978]:129, 132, 222; Hunter 1793[1968]: 59; Stockdale 1789[1950]:44; Tench 1789[1961]:36,47); Worgan 1788[1978]: 13, 18).

Some items of apparel and body markings depicted on anthropomorphic figures in the art include:

- bands (on head, neck and waist);
- body painting designs;
- designs representing cicatrices;
- hair ‘styles’ and headdresses;
- (possibly) nose bones; and,
- (possibly) possum-skin cloaks.

The impact of European contact on Aboriginal society

While the European settlement in Port Jackson affected most severely the Aboriginal groups living south of the Harbour, the Aboriginal occupants of Broken Bay and the Hawkesbury River were also in contact with Europeans in 1788. Governor Phillip and a party of men in a long boat and cutter explored this northern waterway only a few weeks after the First Fleet arrived. First contact here was friendly and Phillip commented on the large numbers of people in Brisbane Water and Pittwater (Phillip 1789[1970]:40).

The 1789 epidemic caused major cultural upheaval that was not restricted to the immediate environs of the settlement. On visiting Broken Bay, Collins noted:

The pox has not confined its effects to Port Jackson, for on many places our path was covered with skeletons, and the same spectacles were to be met with in the hollows of most of the rocks in the harbour. ... (1798[1975]:496)

As European settlement expanded, the Aboriginal population dwindled rapidly. In 1840, only 35 Aboriginal names were listed in the Gosford census: and by 1841, only 16 years after the opening of the Lake Macquarie Mission, Threlkeld had to close down because he ran out of Aborigines to teach. Government blanket returns also illustrate the decline in the Aboriginal populations. The evidence suggests that traditional life continued for a short time after contact. The diabolical 1789 epidemic, however, must have severely affected social organisation. An indication that the fabric of society quickly disintegrated is in the very low frequency and restricted distribution of contact art, i.e. motifs of European subject completed in the traditional style.

Relatively few contact motifs have been recorded and these are restricted to the environs of Broken Bay and the Hawkesbury River. None of these occur close to or south of Port Jackson. Many of these motifs are in areas from where Europeans would have been first sighted from a distance and usually across the water, in boats (McDonald 2008).

Mathews observed ‘blacks in the Wollombi district execut[ing] paintings in caves up till 1843 ‘ (Mathews 1895c:56). While isolated artistic incidents may have occurred up until this time, it is clear, that within 50 years of white settlement the population had been drastically reduced and the culture which had previously thrived no longer existed in its pre-contact form.

The art of the region, and its associated archaeological evidence, survives without the traditions which created, explained and gave it purpose. Ethnohistory provides evidence for the complexity of the social system operating here at contact. The archaeological record supports some early accounts and often provides supplementary evidence. There are instances where the archaeological record refutes early accounts (e.g. dietary focus, the distribution of tooth avulsion and some aspects of mortuary behaviour). The 1789 smallpox epidemic means that social traits and organisation observed after this time must be viewed with extreme caution. Archaeological evidence for long term changes preceding the arrival of white settlers also indicates that projecting these interpretations into the past must be done cautiously.

The relevance of ethnohistoric evidence to patterning in the art

From the evidence gleaned it is possible to propose a behavioural model for the region. It is also possible to suggest how certain features of traditional life might affect, or be reflected in, the art of the region. The following aspects are relevant:

- 1) four languages are recognised as being spoken across the study area at contact. These are the *Darkingung*, *Guringai*, *Darug* and *Tharawal*.

The assumed geographic distribution of the four language groups will be based on Capell’s model (Figure 3.1). Certain of the boundaries will be tested in an effort to resolve existing conflicts in interpretation (viz. Kohen 1986, Ross 1976). Testing should also consider a watershed model (viz. Peterson 1976) contra a creekline equals boundary model;

- 2) residence groups ‘bands’ in the region consisted of named economic units with designated tracts of land. ‘Tribes’ are perceived as having comprised a number of these smaller residence groups, speaking dialects of a common language. Within the range of any one linguistic group or tribe, there would have been a number of smaller localised bands (maybe as many as fifteen) who would have had kin and/or totemic links with people in other groups and therefore modes of access to resources;
- 3) considerable social interaction within and across linguistic boundaries occurred. Organised social events (initiation ceremonies, dances etc.), as well as the exploitation of windfall resources (such as whale feasts) resulted in aggregations of large numbers of people of mixed language groups. Ritual behaviour in the region required the participation, and possibly consent, of neighbouring tribes;
- 4) there is no evidence for a rigid demarcation of territorial boundaries, although many of the initial observations did occur on the resource rich coastal strip and possibly within one linguistic group. The evidence suggests that the maintenance of clearly defined territorial boundaries was an unlikely behavioural trait. The spatial organisation of art traits may not demonstrate characteristics of smaller scale boundary maintenance (Wobst 1977), particularly at the band level;
- 5) the presence of distinguishable, localised bands as well as broader language boundaries suggests that there may have been a highly complex pattern of artistic behaviour and signatures within and across tribal (linguistic) ‘boundaries’;

- 6) there is no direct evidence that art played a primary role in ceremonial behaviour, nor that it had any mortuary significance;
- 7) food resources, economic options and adaptive material culture and modes of personal adornment varied across the region. This could be reflected in the different emphasis on maritime and land animals on the coast and inland, as well as a differential distribution of certain material culture items and body decoration;
- 8) to the north and south of the region, economic differences (east - west) may be reinforced by cultural difference. In both of these areas linguistic boundaries existed at contact between a coastal and hinterland peoples. The absence of sandstone (art sites) on the Cumberland Plain makes resolution of the *Darug/Eora* debate beyond analysis in this context;
- 9) contact motifs occur in the art in areas where the first contact/sighting was made and where the production of art retained its cultural milieu. The 1789 epidemic means that the time scale for such motifs within the fully functioning artistic system was extremely limited.

The fact that so few post-contact motifs do occur suggests that the cultural destabilisation of the region should not affect the integrity of cultural traits in the prehistoric art assemblage.