UTS KURING-GAI, REZONING APPLICATION

INDIGENOUS HERITAGE ISSUES

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Report prepared for CRI Australia Pty Limited

Table of Contents

Figures

Tables

1. INTRODUCTION

1.1 Background

The University of Technology Sydney (UTS), Kuring-gai campus is being considered for residential redevelopment (Figures 1 and 2). Redevelopment beyond the existing footprint could result in surface impacts in a number of areas which might potentially affect Aboriginal heritage and archaeological sites. A rezoning application has been prepared by CRI on behalf of UTS. The rezoning application is part of UTS's reassessment of the future for the site. This report details an assessment of Indigenous heritage issues relevant to this application. It represents an updated version of the report originally commissioned by CRI and written in 2004 and previously finalised in 2006.

1.2 The Brief

The consultant was briefed to undertake the following works:

- Review available information (NPWS Aboriginal Sites Register) and previous reports done in area, identifying any known sites/items of heritage potential;
- Develop a predictive model for the types of Aboriginal archaeological sites which may occur within the study area. Undertake a land-use impact assessment, using air photos, to identify lands with archaeological sensitivity and potential or Aboriginal heritage potential;
- Consult with the Metropolitan Local Aboriginal Land Council (MLALC) and any local native title claimants, to inform them about the concept and determine if there are any sites/locations known to them in the study area;
- Undertake a field survey in the company of the Aboriginal community to groundtruth the predictive model and land use impact assessment;
- Review the agreed concept plan and advise of constraints and opportunities in relation to Aboriginal heritage, providing advise on solutions to any issues which may arise during the assessment of options; and,
- Write a report detailing the results of the background research and field survey, making appropriate management recommendations in relation to Indigenous heritage, the rezoning application and the concept plan.

Figure 1: The UTS Kuring-gai site.

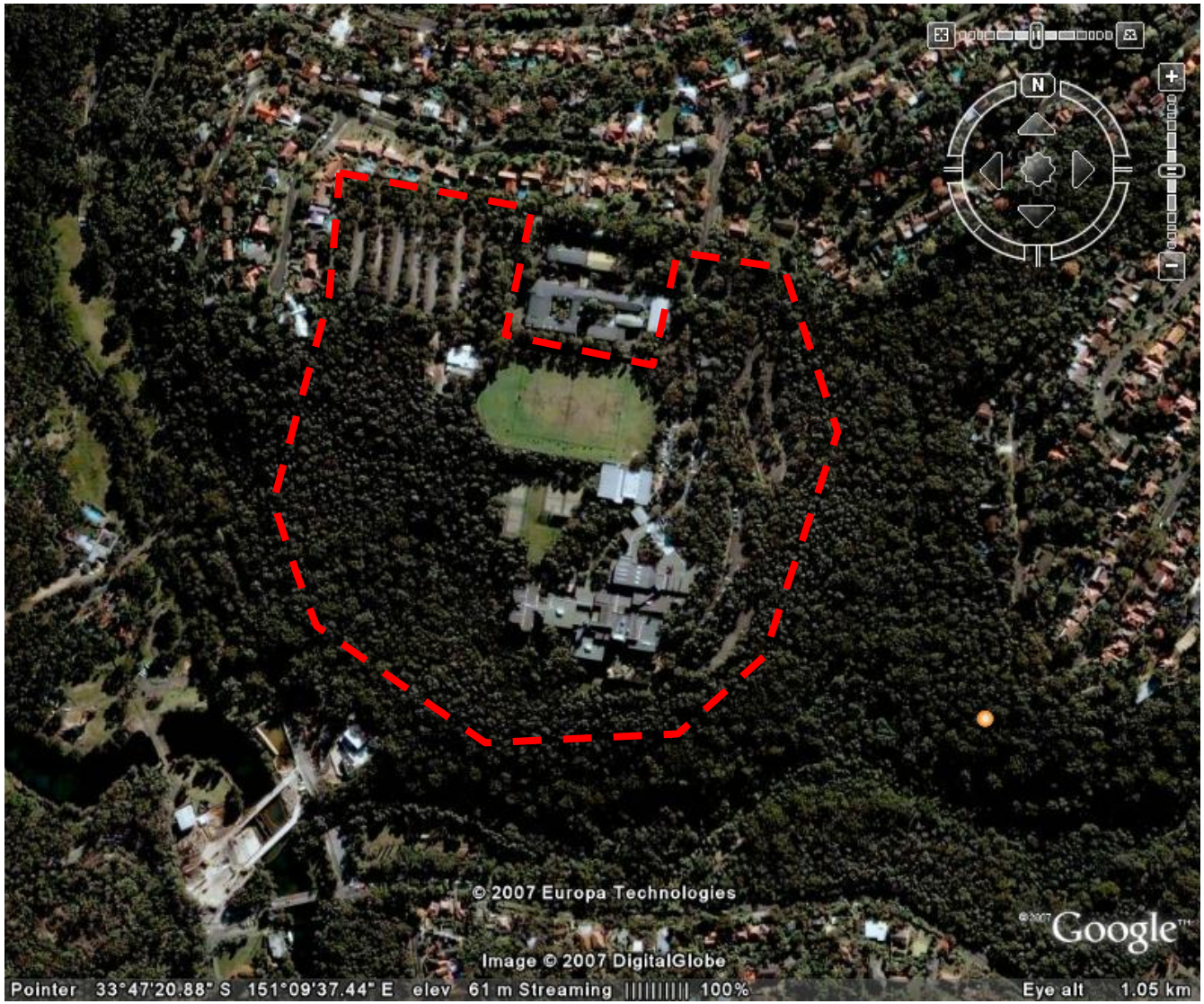
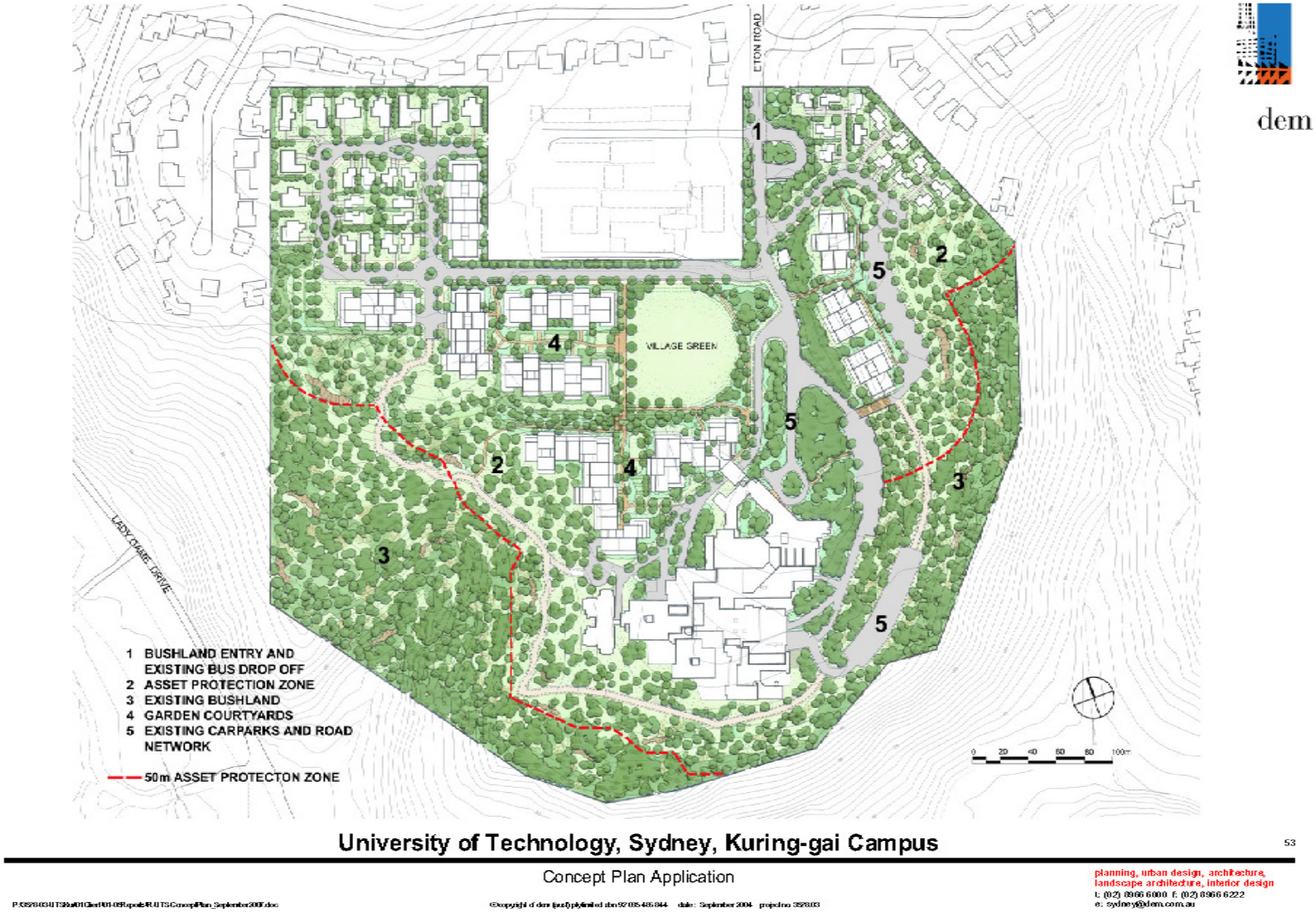


Figure 2: The UTS Kuring-gai site, showing conceptual development scheme.



1.3 Summary of findings and recommendations

No new archaeological sites were located during the survey of the UTS Kuring-gai site "UTS land" on the 2nd December 2003. There are no previously recorded sites affected by this redevelopment proposal.

A previously recorded feature – a rockshelter with PAD (NPWS# 45-6-2508) is located outside the boundary of the UTS land. The current work has confirmed that this site is outside the study area. While there are no archaeological or Indigenous heritage features to be impacted, the MLALC may like to monitor surface works related to initial construction activity across the UTS lands.

1.4 Report authorship

This report was written and updated by Jo McDonald. The archaeological survey of the UTS lands was done by Matthew Kelleher (JMcD CHM) with Adam Madden (MLALC).

2. LIAISON WITH ABORIGINAL COMMUNITY

The study area falls within the boundaries of the MLALC. Mr Adam Madden represented the MLALC in the field survey undertaken on 2nd December 2003. At the time, Adam Madden indicated that he would be writing a short report on the Aboriginal values within the study area. This had not been received when this report was finalised in 2004. For this current report, contact was made with the Metropolitan LALC offices to ascertain whether Adam Madden still wished to provide a report. Mr Allan Madden, MLALC Heritage and Education Officer (in a telephone conversation on 6th September 2007) indicated that as no archaeological sites or Aboriginal objects had been found within the study area, that there were no inherent cultural values to be discussed, and he felt a written report was unnecessary. He indicated that the MLALC would like a copy of this final report for their records.

There is currently one active native title claim over Crown Land in greater metropolitan Sydney. This claim (NC97/8) is by Darug Tribal Aboriginal Corporation (Fed. Court Number NG6061/98). This claim does not apply to the Kuring-gai Council LGA (http://www.nntt.gov.au/applications). Given the fact that this claim does not include Kuring-gai LGA, that no archaeological or Aboriginal sites were located by this investigation and that the study area contains no Crown Land, no contact has been made with the Darug Tribal Aboriginal Corporation (or the other Darug Groups).

No s87 Permits or s90 consents are required under the National Parks and Wildlife Act (1974 as amended) for this stage of the development process. Because of this no advertising to canvass for further Indigenous stakeholders has been undertaken.

3. THE STUDY AREA

The UTS site occupies an area of approximately 21 hectares. It consists of two lots: Lot 1 DP523448 (90% of the total area) comprising the main campus, sporting fields and associated buildings and Lot 5 DP32292 which is predominantly used for car parking. Campus buildings include a large auditorium, several lecture theatres and practical teaching class rooms/laboratories, administrative and faculty offices, cafeteria, library, conference facilities, gymnasium, sporting oval and tennis courts, boat shed, a child care facility as well as other auxiliary buildings and car parking areas. The majority of Lot 5 DP32292 (car park) is bitumen sealed. Approximately 20% of Lot 1 DP523448 is occupied by buildings, with an additional 15% comprising cleared, paved ground used as sporting grounds or car parking. The remainder (c. 10ha) comprises bushland and regenerated vegetation.

The campus is currently staffed by approximately 250 people and has a full and part-time student enrolment of around 4,000. The campus was constructed in five stages, with the first stage completed in 1970 and the last stage in 1998. Prior to the university construction the site was bushland.

3.1 Hydrology

There are various headwater tributary streams which rise in the subject land. The nearest named water bodies to the site are Sugarbag Creek (100m outside the eastern boundary), College Creek rising onsite to the south west, and Blue Gum Creek (100m south east of the site in the Lane Cove National Park). Sugarbag Creek drains to Blue Gum Creek, the latter being a tributary of the Lane Cove River. The River is located 200m south of the subject land. It eventually flows into the Parramatta River and Sydney Harbour at Woolwich.

3.2 Geology & Topography

The surface geology within the study area is mostly of the Hawkesbury Sandstone Formation, which comprises uniform, fine to medium grained quartz rich weathered sandstone with minor interleaving beds of siltstone and claystone. The soils tend to be sandy and slightly acidic. There is some overlying Wianamatta shale on the ridgeline.

The site is mostly on the flat ridge at 53m above Australian Height Datum (AHD). This steeply grades down to 17m AHD in the south, west and east. Campus development in the late 1960s involved site contouring with minor cut and filling in the east for the car park and levelling for the sports oval.

3.3 Vegetation

The areas around the main site comprise undisturbed Sandstone Gully Forest (Benson & Howell 1990). There are four vegetation communities identifiable within this (ERM 2004: 9).

3.4 Land-use Impact Assessment

Aerial photographs from 1930, 1951, 1961, 1970, 1978, 1986, 1994 and 2002 were used to determine the chronology for the development of the UTS lands – as part of the contamination study for this rezoning. These photographs have also been used for this study.

"1930 – the site comprised bushland with most surrounding streets not sealed and there are few scattered residential dwellings.

1951 – the site remains undeveloped, native bushland with evidence of dirt walking tracks/access roads through bushland. The Film Australia site has not been cleared or developed. Residential estates in Winchester and Lyle Ave are under construction. Large buildings on Small Street to the north west appear to be factories or warehouses and not residential (which is the current use for these properties). Lady Game Drive appears to be an unsealed road.

1961 – new residential dwellings being constructed around the site. The UTS site comprises natural bushland. Film Australia buildings now constructed (comprising three elongated buildings).

1970 – Library building and KG02 constructed on the site. No gymnasium building or car parks, however appears to be cleared land. Tennis courts and the sports oval were under construction. New and extended Film Australia buildings.

1978 – residential properties continue to be built to the north east, and car parking areas being constructed. No stage 5 buildings (KG05). No other changes in site facilities or on the Film Australia site.

1986 – Building KG05 under construction, land cleared and slab laid. Boat shed and child care buildings present. No other changes on site or to the Film Australia site.

1994 – childcare facility present, north western residential area not fully established, site facilities same as current, natural bushland appears to be stressed (brown vegetation) indicating a period of drought or bushfire.

2002 – same as current layout with natural bushland, no building additions since 1994, and established residential houses north of the site." (RES 2003: 6)

Beyond the Campus infrastructure buildings is bushland, which remains in a similar condition to that observed in the 1930's.

3.5 Effective survey coverage

Visibility across the study area depended mostly upon the amount of vegetation present and on the presence of existing of sub-surface disturbance. Low effective survey coverage may reveal as much about visibility (and site formation processes) as it does about the archaeology of an area.

Effective survey coverage, based on surface visibility has been calculated for the two main landscape areas surveyed (see Table 1). Almost without exception, effective survey coverage was extremely low. This is due mainly to low surface visibility - very low except where there has been some form of previous land use disturbance. While these figures are low, there are several factors which suggest that this issue has not unduly affected potential site recovery. By using aerial photographs, areas with potentially better visibility were targeted by the survey. On the ridgetop – where there was significantly higher amounts of existing disturbance – visibility was restricted to small sandstone platforms and areas where there had been some form of minor previous disturbance.

Effective survey coverage here was also affected by the fact that the undisturbed Hawkesbury sandstone hillslopes are generally steeply sloping. Here the focus for Aboriginal occupation would have been in sandstone outcrops (either platforms or shelters), rather than in open locations (although open sites could be found in localised flatter areas). The general visibility here is good, meaning that it is easy to see potential locations of Aboriginal sites. Ground surface visibility is extremely low, however, because of leaf litter and ground cover. Very few sandstone shelters were encountered during the survey (these mostly took the form of low to medium cliff lines) – and no sandstone platforms were observed in any of the creeklines.

Table 1: Effective survey coverage calculations.

Landform Unit	Disturbed?	Dimensions (m)	exposure %	% surface visibility	Estimate of effective coverage	Sites /PADs /IF
Sandstone /shale ridge	√	10ha	10%	30%	3%	0
Sandstone hillslope		10ha	<5%	10%	.05%	0

4. ARCHAEOLOGICAL CONTEXT

4.1 Ethnohistoric and Early Sources

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, several of which usually teamed together to forage in a fairly restricted area (Lawrence 1968:171).

> [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)

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

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 1791, 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 (Kohen and Lampert 1988). Numerous references indicate that specific adaptation to different resources existed.

> Fish is their chief support ... the woods, exclusive of the animals which they occasionally find in their neighbourhood, afford 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)

From archaeological research, it would appear that this apparent seafood bias in the coastal diet has been overstated (McDonald 1992). 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).

Many early references comment 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 (*ibid*). 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).

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)

The bark constructions in the open have not survived in the archaeological record as well as habitation evidence within shelter locations. Of course, the stone artefacts which were used while inhabiting these locations have survived. This provides the archaeological evidence upon which much of our understanding of Aboriginal occupations rests.

Summary of relevant ethnohistoric evidence

From the ethnohistoric evidence it is possible to understand better the region's prehistoric social organisation. The following aspects are relevant to understanding sites found in the local area:

- Two different languages are recognised as being spoken in the vicinity of the study area at contact, the *Guringai and Dharug*. The boundary between these two language areas is thought to be the Lane Cove River, with the *Guringai* occurring to the east (and north) of this river and the *Dharug* to the west (and south);

- Broad economic differences were observed in the hunting and foraging foci of these two groups, with maritime resources thought to be the focus of the coastal peoples and terrestrial and riverine resources being the basis for the inland peoples' diets. It would be expected that the archaeological records resulting from the two groups may be slightly different on the basis of their differing resources bases; and,

- Where rockshelters occurred, these were utilised by Aboriginal people for living sites (and the production of art and sometimes for the disposal of the dead). In areas where there is Hawkesbury sandstone geology, it would be expected that shelter locations may provide evidence for these types of sites. However, both coastal and inland people were observed (at contact) living in the open, using a variety of bark constructions as shelters. Open camp sites could also be expected in flat suitable areas within the current study area.

4.2 Regional archaeological context

Human arrival on the Australian continent is now generally accepted as c.43-45ka (O'Connell and Allen 2004), with semi-arid south-western New South Wales yielding the oldest human remains known from the continent (Bowler et al. 2003). Until fairly recently, archaeological shelters in the Blue Mountains [at Shaw's Creek KII: 14,700 yrs BP (Nanson et al. 1987)] on the south coast [at Burrill Lake: 20,000 yrs BP (Lampert 1971a)] and in Mangrove Creek [Loggers Shelter: 11,100 years BP (Attenbrow 2004)] provided the earliest securely dated evidence for occupation in the region. Open sites on the Cumberland Plain and on the coastal strip now provide good evidence for Pleistocene and early Holocene occupation in the region. A Pleistocene sand body on the Parramatta River, excavated in three different development contexts as sites CG1, RTA-G1 and GG3 (JMcD CHM 2005b, 2005e and 2006a) has returned the oldest date for the region (30,735 ± 407 BP Wk-17435). This extensive sand body was first occupied during the Late Pleistocene at which time an assemblage dominated by silicified tuff artefacts was found.

Our understanding of the mosaic of habitation indices across the region has evolved since Fred McCarthy (1948, 1964) first characterised the Eastern Regional Sequence (ERS). The currently used terminology in the Sydney region for phases within the ERS are Pre Bondaian (previously Capertian), followed by Early, Middle and Late Bondaian (Hiscock & Attenbrow 2005; JMcD CHM 2005a, b, e). It is argued that change to the small tool tradition reflect a change in social structure as well as changes in hunting strategies, from 'individual pursuit' (with spear) to co-operative and communal

strategies (including the use of nets). It is also argued that there was concomitant economic diversification (Morwood 1986: 347). Such changes would have allowed a wider range of animals to be hunted effectively and supported population increase. Such co-operative hunting strategies are recorded in the Sydney region at contact [e.g. kangaroo hunting in the Nepean area by large groups of people (Barrallier 1802)].

4.3 Local context

The search of the DEC (formerly NPWS) Sites Register was undertaken to determine the known sites in the local context. The data base was searched for known sites located within 1km of the study area. This revealed the presence of seven registered sites to the south and east of the current study area – none of which are within the boundaries of the current study area (Tables 2 and 3).

Table 2: Site types recorded within 2km of the study area's boundaries. Data from DEC AHIMS Sites Register 31.5.03.

Site Type	Frequency	*%f*
Open Camp Site	1	*26.9*
Shelter with Midden	2	*11.5*
Midden	3	*7.7*
Shelter with PAD	1	*3.8*
	7	*100.0*

Table 3: Information on the registered sites (see Table 2).

Site Id	Site name	Site type	Impact?
45-6-1633	Fullers Park; Lane Cove NP	Midden	no
45-6-1946	Blue Gum Creek	Open Site & midden	no
45-6-1953	Pages Creek Cave	Midden	no
45-6-2210	Blue Gum Creek	Shelter with Midden	no
45-6-2211	Lane Cove #3	Midden	no
45-6-2232	Depression Cave	Shelter with Midden	no
45-6-2508	Delhi Road	Shelter with PAD	no

4.5 Predictions for sites in the local context

Based on previous studies (eg. Crew 1987, Oakley 2001, JMcD CHM 2001b) and site recordings in the local context, the following predictions are made for the study area:

- open artefact scatters (or isolated artefacts) would occur in open locations on shale or sandstone bedrock. It is unlikely that surface material will be abundant except in disturbed locations. Potential Archaeological Deposit (PAD) should be identified on the basis of low levels of previous land-use disturbance;

- shelter sites (with art, archaeological or midden deposit or grinding grooves) will occur along the Lane Cove River and other tributaries creeklines where appropriate sandstone rock overhangs occur. Where deep midden deposit occurs, human burials may well be present;

- open grinding groove sites - again, along creeklines in sandstone geology – will occur if suitable rock platforms are present;

- scarred trees may be located if substantial trees occur which have survived the last 200 years of European land-use; and,

- Quartz, silcrete and indurated mudstone are likely raw material for stone artefacts in sites on the Hawkesbury sandstone, although usually stone artefact assemblages are sparser in estuarine contexts.

5. FIELDWORK METHODOLOGY

Field survey for Aboriginal archaeological sites was undertaken on Tuesday 2 December 2003 by Dr Matthew Kelleher (JMcD CHM) and Adam Madden (MLALC).

The following survey methodology was adopted, based on levels of existing disturbance, and likely impact from the development proposal:

- All part of the UTS lands where there will be development impacts and where there are low existing land use impacts were surveyed on foot by two people. Air photos were used for precise field location. A hand-held GPS was used to register grid reference locations where necessary. These areas were systematically and intensively surveyed, focussing particularly on areas with good surface visibility;

- A targeted survey of likely site locations (sandstone outcrops, platforms in creeklines and flatter areas where there was ground surface visibility) beyond the proposed impact area but within the study area was undertaken on foot by two people;

- Areas within the UTS lands proposed for development where existing development has resulted in generally high levels of sub-surface disturbance were not inspected on foot (eg. campus buildings, sports fields, car parks and other facilities);

- Throughout the study area, the survey focussed on tracks, exposures and other areas of good surface visibility (>10%). Areas thickly grassed were walked over in attempt to determine the degree of previous disturbance.

As indicated above surface visibility was on the whole low. Consequently, effective survey coverage over the entire study area was also low.

6. SURVEY RESULTS

No new or previously unrecorded sites were located during the survey. There are several recorded sites within a relatively short distance of the boundaries of the study area. These are all within Lane Cove National Park.

While there was a low level of effective survey coverage, the lands which are likely to impacted by this development proposal are assessed as having low to no archaeological sensitivity in terms of Indigenous heritage. The bushland beyond the proposed residential development zone is steeply sloping with few likely foci for habitation. No evidence was found along creeklines for archaeological sites.

7. RECOMMENDATIONS

The following recommendations are made regarding the proposed Rezoning and concept masterplanning study. These are made on the basis of:

- legal requirements under the terms of the National Parks and Wildlife Act of 1974 (as amended) whereby it is illegal to damage, deface or destroy an Aboriginal Relic without the prior written consent of the Director-General, Department of Environment and Climate Change;
- the regional and local archaeological and ethnohistoric context for the area;
- the findings of the field survey done within the study area;
- the interests of the Metropolitan Local Aboriginal Land Councils; and,
- the likely impacts resulting from the proposed concept plan design.

It is recommended that:

8.1 There are no Indigneous heritage constraints to the proposed redevelopment of the UTS lands;

8.2 Assessing the social significance of the study area is the respobsibility of the MLALC. Preliminary discussions with MLALC representatives indicate that these are unlikely to be an issue within the current development area.

8.3 One copy of this report should be sent to:

Ms Jenny Munro
Chairperson
Metropolitan LALC
PO BOX 1103
STRAWBERRY HILL NSW 2012

8.4 Three copies of this report should be sent to:

Ms Lou Ewins
Manager Cultural Heritage Division
Sydney Zone DECC
PO Box 668
PARRAMATTA NSW 2124.

8. REFERENCES

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