

## 5.0 The Archaeological Context

### 5.1 Aboriginal Occupation Models of the Canberra Region

Complementing the ethnohistoric records for the region is that archaeological record, from which has been derived a number of models of Aboriginal occupation for various areas within the Canberra region. These are here discussed with reference to the broader Canberra region and then for the Murrumbidgee Study Area.

Archaeological research into the Canberra region gained momentum in the late 1960s and led to a flurry of work throughout the 1970s and 1980s. Apart from some earlier studies into the archaeology of the southern highlands (see Kinsella 1934, Moss 1939 and Tugby 1964) the first comprehensive investigation was conducted by Josephine Flood (1970). Flood undertook a broad survey of the highlands surrounding Canberra and established a model of Aboriginal occupation that continues to influence archaeological research today.

One of the great debates in Australian archaeology concerns the nature of Pleistocene colonisation. This, and the related question of Holocene intensification, became the initial focus of archaeological research in the Canberra region. The southern highlands region has been described as one of the most marginal environments in Australia, and as such offers a useful environment in which to study use of the landscape through time (Flood et al 1987).

Flood's initial investigations led her to conclude that the region was unoccupied before around 5 000 years ago, a period marked by the development of the Australian small tool tradition. A series of excavations (including eleven rock shelters and one open artefact scatter) through the 1970s appeared to support this model of occupation, with the earliest dates coming from Sassafras 1 at the top of the Budawang Range of  $3\ 770 \pm 150$  BP and from Nursery Swamp 2 dated to  $3\ 700 \pm 110$  BP (Flood 1980; Rosenfeld et al 1983).

However, in the 1980s Flood excavated Birrigai rockshelter, and for the first time produced evidence of Pleistocene occupation of the southern highlands. Birrigai is located on the northern fringes of the south eastern highlands and produced a basal occupation date of 21 000 BP. The oldest deposit suggested low intensity, continuous occupation of the rock shelter until around 3 000 years ago. The archaeological evidence then suggests the rapid onset of intensive occupation that continued to increase in intensity until around 100 years ago. There is evidence that Aboriginal occupation of the rockshelter continued following European settlement of the region (Flood et al 1987).

Birrigai is still the only Pleistocene dated site in the Canberra region.

There are now a plethora of late Holocene dated sites at around 3 000 BP. This suggests intensive occupation of the region, coinciding with the appearance of the small tool tradition.

Subsequent archaeological investigations, mainly in the form of consultancy work as part of development plans, have sought to test and augment the model Flood proposed. While the basic pattern of limited Pleistocene occupation and intensified Holocene use of the landscape has not substantially been challenged, researchers have examined questions concerning the nature of landscape use. Varying patterns of occupation on the low lying valleys compared to highland areas

and the distribution of large site complexes compared to smaller sites are some of the issues that have been considered.

Flood (1980) suggested five types of occupation sites occurring within the southern highlands. These site types correlate with altitude and form the basis of Flood's model of occupation for the region.

The five site types are:

- Large lowland base camps – open artefact scatters containing over 1 500 artefacts that may extend over several kilometres;
- Medium sized lowland camps;
- Valley camps at altitudes between 745 – 1160m;
- High summer camps at elevations of 1160 – 1525m; and
- Camp sites above 1525m (the snow line)

This model implies seasonal movement through the landscape, with lowland areas occupied during the harsh winter months and alpine areas utilised in the summer. Flood makes a direct link between movement and the availability of seasonal resources, namely the Bogong moth that was plentiful in the mountain country during summer. From this analysis Flood built a model of site location for the region. The model is based on the premise that climate and seasonal availability of resources were the two main factors influencing site location and the use of the landscape by Aboriginal people in the Canberra region. The main points of this model are that camp sites will tend to be located:

- With access to water, with all sites within one kilometre of a water source and the majority of sites within 100m;
- Not directly along water courses, with Flood suggesting that poor drainage, risk of flash flooding and mosquitoes would have deterred long term camps immediately adjacent to rivers and creeks;
- With an aspect that allows people to sight game and/or the approach of strangers;
- In close proximity to shelter or materials from which to construct shelters; and
- In close proximity to food and other resources.

Bowdler (1981) revised Flood's model arguing that a staple food, the daisy yam, would have allowed extended occupation of the highlands. Bowdler's model is based on the idea of two complementary adaptive economic systems: reliance on a daily staple food (the daisy yam); and use of a communal 'feasting' food that would have facilitated large group gatherings for ceremony and trade (the Bogong moth). Argue (1991) suggested that the daisy yam is an unsuitable staple food as it is also seasonal, however the general premise of Bowdler's argument remains plausible, with perhaps an alternative staple food being utilised (AASC 2007).

Witter (1980) conducted a survey from Canberra running north east to Dalton in NSW. From the results of this survey Witter suggested a model of two alternative subsistence strategies that is very similar to the model proposed by Bowdler (1981) for the southern highlands. Witter's model divides subsistence according to environmental zone, with Riverine Oriented and Plateau Oriented systems each having a different economic basis. Riverine Oriented subsistence strategies, he argues, were based on exploitation of river animals and plants with seasonal forays into upland plains. The Riverine system is reflected in sites located on the semi arid plains along the major river systems. In contrast, Witter's Plateau Oriented economic system is based on a staple food; in this case Witter argues that the acacia seed formed that staple. This economic base was adopted in highland areas with sites tending to be located both on ridges and highland plains close to permanent water courses.

Recent archaeological surveys have refined knowledge of past landscape use. In particular, a comparison between site distribution on the lowlands and in alpine areas allows a more comprehensive understanding of the nature of past Aboriginal occupation of the region.

Focal points for activity do occur away from the lowland water courses, with highland plains showing evidence of intensive activity. The nature and duration of this activity has not been elucidated. Alpine areas are emerging as more important occupation zones than earlier research indicated. Site densities are high along major highland river valleys, which suggests that valleys were the focus of relatively intensive occupation. Grassland plains in the highlands were also a focus of Aboriginal landscape use. Paton (2003) conducted a survey through the Naas valley and recorded high site densities in the highland plains, which he argued were similar to site distribution patterns recorded in the Victorian highlands.

AASC (2002) conducted an extensive survey of almost 300km of tracks through the Namadgi National Park. The results support the general basis of Flood's model, although suggest refinements in the interpretation of use of elevated regions. The survey found that the highest artefact densities did occur in lowland areas such as the Naas and Cotter River valleys. Site densities noticeably decline away from watercourses and are especially low in steep, hilly country. However, along the top of major ridgelines artefact densities were very high. This is interpreted as evidence for use of prominent ridgelines as regular travel routes across the landscape. One such ridgeline with high site densities was identified from Brandy Flat to Glendale. This is likely to be a route between the Naas and Gudgenby River systems, and it is likely that other ridgeline routes exist within the region (AASC 2002).

One other pathway is suggested by Huys (2008) from a landscape assessment of the terrain in the southern ACT. This route extends from Lanyon north east to Pialligo, following roughly the alignment of the current Monaro Highway (Huys 2008:47). It follows the valley from the hilly country in the southern ACT towards the low lying area around Jerrabomberra Creek and the Molonglo valley. The path meets another documented pathway leading south east towards the Monaro (Huys 2008:47).

Barber (2000) conducted a survey of proposed extensions to the Hume Industrial Estate and observed that the majority of recorded sites were located on the mid to upper hill slopes away from water. This is unusual, but does link back to Flood's earlier model that suggests that sites are not located directly on watercourses. Navin Officer (2001) surveyed 58 hectares between Dog Trap Creek and the Monaro Highway and recorded three sites that were all low-density artefact scatters comprising less than ten artefacts at each site. Huonbrook Environment and Heritage (2007) conducted salvage excavations of sites at Hume, concluding that these sites were unusually rich in artefact deposits and diverse in artefact typologies. They conclude that the site may represent a base camp, and a possible artefact production centre. Huys (2008) conducted further salvage excavations at the Hume Resource Recovery Estate. These investigations again reflected a rich and diverse archaeological assemblage. It was suggested that this site represents an interim campsite to which groups of people regularly returned (Huys 2008).

The Canberra region presents a challenging environment, and the archaeological record reflects a diversity of responses to this landscape. Research indicates occupation of the landscape from at least 21 000 years ago (Flood 1989). Around 4 000 years ago occupation in the region intensified, as it did in many parts of Australia (Bulbeck and Boot 1991). During the Holocene, people established large

base camps along the low-lying river valleys, such as the Molonglo and Murrumbidgee. Sites along these rivers include very large artefact scatters that contain high artefact densities and may be spatially extensive as well. A series of well-defined pathways through the landscape connected the low lying valleys with highland areas. Ridgelines and valleys formed the basis of these pathways. The alpine grasslands and valley systems offered contrasting subsistence opportunities, which may have facilitated the intensification observed in the archaeological record.

## **5.2 Previous Archaeological Investigations within the Study Area**

The current study area and its immediate surrounds have yet to be subject to detailed archaeological survey. The closest recorded Aboriginal sites to the current study area occur in excess of 3.5km from Naas Bridge. As such, predictive models of the current study area need to draw on those previously established for the Canberra Lowlands and Murrumbidgee River Corridor (MRC) which hold the greatest relevance to the current study area.

## **5.3 Aboriginal Occupation of the Canberra Lowlands**

The majority of archaeological research in the ACT has been conducted in low lying areas. The Molonglo and Murrumbidgee River valleys are the major watercourses through the area and were focal points of Aboriginal activity (AASC 2007b).

Extensive work has been undertaken since the 1970s of a series of sites near Pialligo. Trish Saunders (1989) undertook a surface collection of artefacts from site PN1 on a sandy ridgeline overlooking alluvial flats along the Molonglo valley. Over seven thousand artefacts were recovered from this site. A second site 250m north of the river produced over four thousand artefacts, mainly quartz chips (Saunders 1989).

Archaeological investigations carried out in areas away from the Molonglo and Murrumbidgee Rivers has also resulted in the identification of a large number of Aboriginal sites including a wide range of site types, representative of a broad range of occupation and activity types. To date, however, none appears to be as extensive as the Pialligo site or indicative of large base camp style occupation.

In 1990, Bulbeck and Boot undertook an inventory of Aboriginal and European cultural sites within the Kowen District in the northeastern corner of the ACT. Bulbeck and Boot concluded that land retaining good access to permanent water acted as a focus for Aboriginal occupation, particularly land that was both locally flat and provided a good vantage point. A slight concentration of Aboriginal sites along ridgelines was also observed, leading to suggestions that these ridges acted like highways or the traversing the local terrain (Bulbeck and Boot 1990a).

A similar investigation of the Stromlo Pine Forest also indicated that lower spurs overlooking water courses appeared to have provided the main focus of Aboriginal occupation (Bulbeck and Boot 1990b). Moderate densities of artefacts were observed on hills and spurs; areas thought to have been preferred during the colder nights when cold air settled in the lower parts of the valleys. Artefact densities are noted to be lowest in steep terrain and gently sloping land away from watercourses (Bulbeck and Boot 1990b).

In 1993 Winston-Gregson undertook a comprehensive study of the Pierce's Creek, Uriarra, Tidbinbilla, Gibraltar Creek and Miowera Forests. The survey resulted in the identification of over 750 sites, the vast majority of which comprised open artefact scatters (N=696 sites). The total artefact count for these assemblages comprised 7419 artefacts, giving an average of approximately 10

artefacts per site. Other sites included 4 rock shelters and a single scarred tree. Highest site densities were observed to occur within the Uriarra and Pierce's Creek Forest areas; the two largest Forest precincts investigated and traversed by the Cotter River, which runs through both areas and would have been a focal point for Aboriginal activity (Winston-Gregson 1993).

Investigations of more than 300 Aboriginal sites located within the broader Gungahlin area (Huys 1993) were found to demonstrate slightly different patterning. Isolated finds and small artefact scatters (i.e. less than 10 artefacts) were not found to demonstrate any clear locational patterning in relation to landscape features. However, small to medium scatters were found to be consistently located on elevated landscape features within 100m of a watercourse. The larger artefact scatters tended to be focused on major creeklines or raised margins of wetlands (Huys 1993).

Within the Majura Valley, through which runs Woolshed Creek and a series of associated tributaries and drainage lines, the most comprehensive investigation to date has been undertaken by Navin Officer (1999). For the fieldwork component, Navin Officer utilised a sampling strategy which covered a total of 360ha (14% of the study area). In the course of the field assessment, a total of 19 artefact scatters, 26 isolated finds, 3 scarred trees and a potential archaeological deposit were identified. The largest scatter identified comprised 50 artefacts (a total of 121 artefacts were recorded across all sites), with prominent raw material types including quartz, chert, volcanic and silcrete in descending order of popularity. On the basis of their results, Navin Officer observed a broad trend towards Aboriginal sites being located in valley floor and basal slope contexts. The most frequently recorded site contexts were spur lines (41%), followed by minor stream line margins (30%), major stream line margins (24%), terrace and alluvial flats (19%), basal slopes (17%), crests (14%) and mid-slopes (12%). The observed frequencies therefore indicate a preference for contexts which are locally elevated, have level ground and are within 100m of a water course.

#### **5.4 Archaeological Modelling of Site Type and Location within the Murrumbidgee River Corridor (MRC)**

The existing occupation models for the Canberra Lowlands and for the Murrumbidgee River Corridor more specifically therefore emphasize the fundamental importance of topography and proximity to water in dictating site location and type.

Importantly, however, each of these models, including the larger scale investigations, is necessarily narrow in its focus, examining only those sites located within a given study area. Further, due to the geographical limitations that development specific investigations generally place on investigations, very little has been done in the way of comparisons between site types and locations over the broader area. While factors such as environment and geology are always discussed in these models and broadly affecting Aboriginal site patterning, the impacts of these variables are rarely explored. This is largely due to the fact that study areas are often too discrete to allow such comparisons.

In 2015, CHMA completed an assessment of existing sites within the MRC and Canberra Lowlands examining the effects of climate, environment, geology, topography and order of drainage lines on site type and patterning. The results of the environmental mapping allowed for a number of observations to be made regarding site patterning within 500m of the Murrumbidgee River, and are summarised in the discussion below.

Observations of access to water/stream order size indicated that the vast majority of sites were located within 400m of more than one water source, with anywhere up to four sources nearby in addition to

the River. Proximity to any source and ease of access appear to be higher priorities than accessing the River specifically.

Artefact densities were observed to generally be small within the ACT portion of the River, with none of the sites recorded to date sufficiently large as to qualify as base camps or long term/prolonged/repeated occupation. All represent transient or casual occupation, representative of short term occupation by small groups or individuals as they travel through the area.

It is tempting to assume that this was because access to the River was difficult over much of the area and available stream lines were only conducive to short term occupation. However, even in areas where the landscape opens up and access to the River becomes quite easy, large sites do not appear to be present. Further research and knowledge of the sizes of those sites for which assemblage size is unavailable may alter this interpretation, but with the current data set, it appears that the ACT portion of the Murrumbidgee River was never occupied intensively.

Ignimbrite geological types were preferentially occupied, in favour of alternative geologies such as granitic porphyry, or sandstone/siltstone. The more commonly occupied soil landscapes are Burra, Williamsdale and Bullen Range, each of which is quite different in terms of topography and soils. Highest site frequencies occur on undulating and rolling hills/alluvial fans: areas where slopes are gentle to moderately inclined (5-30%). However, after Burra, a clear preference for a particular topographic or soil context is not apparent, with sites occurring in similar proportions on 6 very different soil landscapes.

A preference exists for areas with slopes measuring <6% while approximately 70% of sites occurred on landforms with slopes lower than 10%. This does, however, preclude the presence of sites in areas identified as being moderate to steeply inclined with sites located in land with slopes of up to 25%.

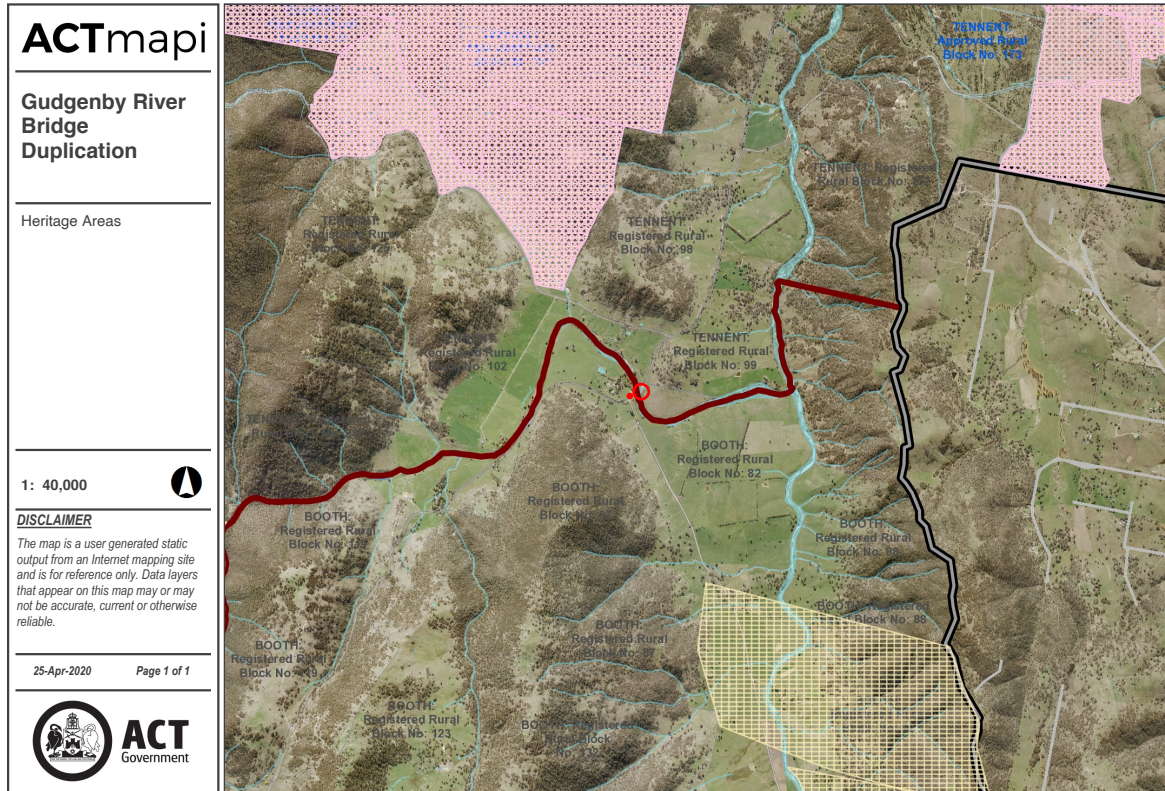
The data set for this MRC investigation was far from perfect, with site size data missing for many of the sites within the corridor and impacting the generation of a comprehensive understanding of site size and the various environmental elements examined. Nevertheless, the study allowed for the establishment of broad brush models of occupation along the MRC and represents one of the largest studies of its kind for the region.

## 5.5 Results of the Search of the ACT Heritage Register

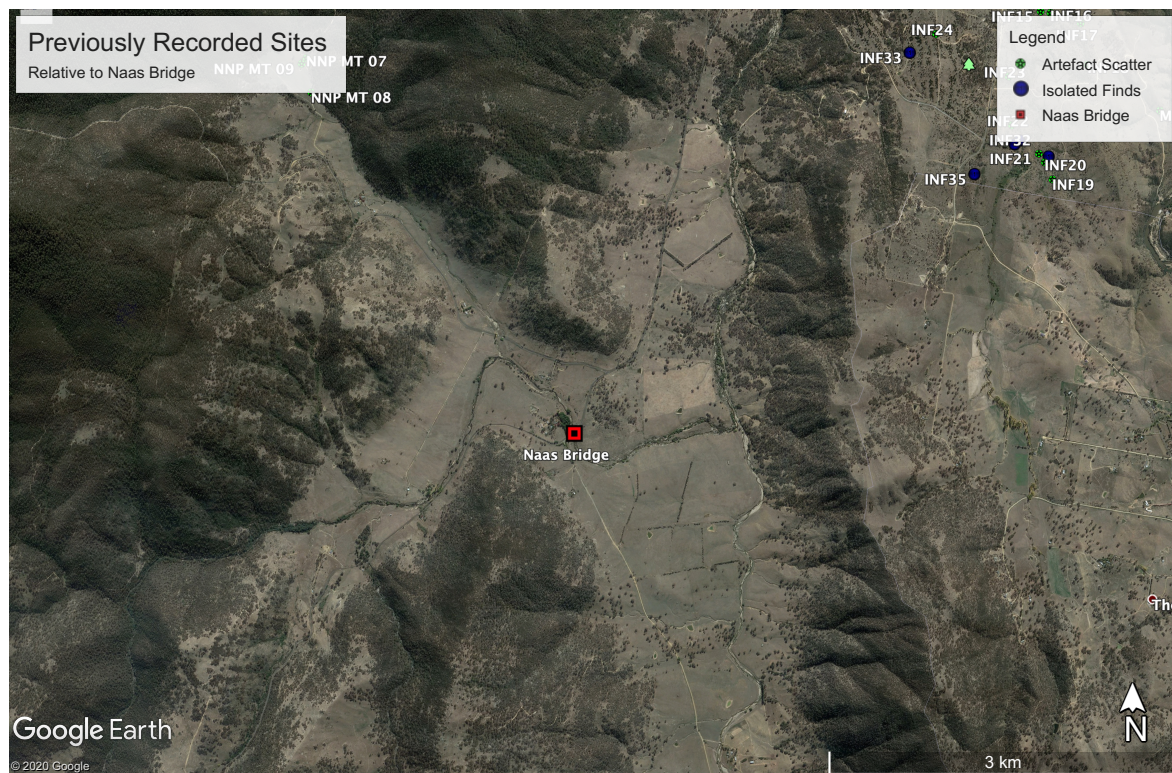
A search of the ACT Heritage Register was undertaken through ACTMapi on 9th April 2020. Figures 9 and 10 show the results of this search. In addition, a formal search of the register was requested from ACT Heritage on 28th April 2020. Verbal confirmation that no previously recorded sites are listed within the current study area, either Aboriginal or Historic, was provided by ACT Heritage 9<sup>th</sup> May 2020.

A sandstone memorial noting the burial site of William Herbert, a local European settler, is located north of Naas Road, on the western side of the bridge. This location does not appear on the ACT Heritage Register, though the plaque on the stone cairn indicates that it is the site of an historic burial. Instead, this site is subject to the *Crimes Act*, the *Coroners Act* and the *Cemeteries and Crematoria Act*.

The project will be designed to provide an appropriate setback from this memorial to ensure it is preserved and protected.



**Figure 9. Mapped areas of registered heritage value as provided by ACTMapi (accessed 9<sup>th</sup> April 2020) (Solid red dot denotes historic burial, open circle denotes study area)**



**Figure 10. Mapped previously recorded Aboriginal Sites relative to Study Area**