



ACT Heritage Council

BACKGROUND INFORMATION Mulligan's Flat Aboriginal Stone Quarry (Block 685, Gungahlin)

At its meeting of 14 November 2019, the ACT Heritage Council decided that the Mulligan's Flat Aboriginal Stone Quarry was eligible for provisional registration.

The information contained in this report was considered by the ACT Heritage Council in assessing the nomination for the Mulligan's Flat Aboriginal Stone Quarry against the heritage significance criteria outlined in s10 of the *Heritage Act 2004* (the Act). The place is subject to restricted information under Part 9 of the Act and this document has been redacted.

HISTORY

The Ngunnawal people are one of several groups traditionally affiliated with the lands within the Canberra region. In this citation, 'Aboriginal community' refers to the Ngunnawal people and other Aboriginal groups, including the Ngambri, within the ACT who draw significance from the place. Whilst the term 'Aboriginal community' acknowledges these groups in the ACT, it is recognised that their traditional territories extend outside contemporary borders. These places attest to a rich history of Aboriginal connection to the area.

The Aboriginal history of the ACT extends from the present day back many thousands of years, and is evidenced by both the tangible and intangible aspects of Aboriginal culture and history. The earliest evidence of Aboriginal people in the region comes from Birrigai Rock Shelter in Tidbinbilla, dating back to over 25,000 years ago (Flood 1995:116; and Theden-Ringl 2016:26). Activity at Birrigai has been linked to gatherings of local and regional Aboriginal people who would come together along Aboriginal pathways, and participate in a series of meetings and ceremonies along the way. Other aspects of Aboriginal culture and history that demonstrate past ways of life can be found across the region include stone artefact scatters, stone arrangements, culturally modified trees, ceremonial and cultural sites, grinding grooves and ground implements, burials, rock art and quarries.

Quarry sites are locations where stone materials were obtained by Aboriginal people for production of stone artefacts. The stone could be sourced from loose material sitting on the surface, removed from exposed bedrock or dug out of or exposed through the ground. Quarry sites can be identified through evidence of stone being extracted from stone outcrops, the presence of shattered stone, the presence of flakes, cores and/or quarried pieces that are of a suitable size for carrying, negative flake scars on rock faces, the presence of fine-grained stone suitable for artefact production or any combination of these features. Unlike many other cultural sites that are located in the main part due to human behaviour, the location of quarry sites is dependent on where the stone has been exposed with the caveat of the ability of past people to exploit that resource, so their location are difficult to predict. The Mulligan's Flat Aboriginal Stone Quarry is located on a steep slope that would not fit with previously published predictive models for the region as the material just happens to be exposed at this particular place.

The stone, initially described as chert, was subjected to detailed analysis by a geologist and identified as a metamorphosed volcanic tuff (a fine-grained siliceous rock formed from volcanic ash), otherwise there is a small minority of other artefacts made from quartzite or volcanic rock used as hammer stones and a single flake of an unidentified fine-grained stone (Barber & Williams, 1998:6, 20).

There are currently five other stone quarries identified in the Gungahlin area: PH12, PH13, C1/1, C1/2, and C1/3. The five sites were subject to varying degrees of recording and analysis, but it appears as though they were all formed of a similar tuff, although the quality of the rock varied at the different locations resulting in different methods used to obtain material for further working into more useful pieces (Barber & Williams, 1998:7-12). The rock at PH12 and 13 was worked directly, with pieces broken off the outcrop by hitting it with hammer stones, while the other sites, including the Mulligan's Flat Quarry, took advantage of naturally fragmented nature of the rock outcrop that left many large pieces scattered around.

BACKGROUND INFORMATION – Mulligan's Flat Aboriginal Stone Quarry

The different procurement strategies result in different patterns in the archaeological material found at the sites. The stone used at Mulligan's Flat Quarry generally consists of loose blocky stone found on the ground of a size that could be easily held by hand. This material has separated from the parent bedrock of the area likely as a result of the rock exfoliating in bushfires, fluctuating extreme hot and cold periods, or other natural forces that cause the rock to break along weak planes within the rock. This platy characteristic is common for schistose rock that covers much of the surrounding area, but it appears that only in this one place was it easily accessible or of a high enough quality, or a combination of the two, for use in flaking. These blocks of rock could then be easily picked up off the ground and tested in order to find the best quality material for flaking that could then be taken away and shaped further elsewhere as required (Barber & Williams, 1998:13). Later investigations also revealed that the outcropping rock in concentration #3 had been directly utilised. There are several large negative scars with crushed platforms (Figure 6) indicating that the outcrop was struck forcefully with a large rock to produce smaller pieces for further working.

The Mulligan's Flat Quarry covers the main part of the spur with artefacts spread consists of three areas of stone artefact concentration on different sections of a hill spur that falls 50m to the southeast over the sites 174m length. The lowest, south-eastern artefact concentration occurs on a relatively flat area while the other concentrations are relatively steep reaching up to a 1:8 slope. All lay on the spur between two small ephemeral drainage lines [REDACTED]. The southwest drainage line also has outcrops of stone material, but it appears to not have been utilised. The southeast drainage line contains a spring. The site is between 700m and 750m elevation with expansive views across the Ginninderra catchment and Gungahlin.

The main concentration (see Figure 1 for locations of concentrations) and source of the quarry appears to be artefact concentration #3 (Figure 9) due to the high concentration of flaked pieces, outcropping bedrock with loose blocky pieces suitable for use as cores and primary several primary cores. Concentration #2 (Figure 8) does not have outcropping material and may be related to a secondary processing area, although the erosion in the area and the steep slope suggest that the artefacts may have moved from their original position further uphill. Similarly, concentration #1 (Figure 7) is located at the bottom of the spur on relatively flat ground and appear to show some size sorting (i.e. it consists of similarly large pieces) that may indicate that the artefacts have moved to their current position from further uphill. (Barber & Williams, 1998:17-18)

Barber & Williams (1998:26-28) analysis concludes that the site is a surficial hardstone quarry (i.e. natural processes have led to the metamorphosed tuff lying on the surface in pieces and it was these pieces that were used as cores for making artefacts rather than striking large pieces of exposed bedrock) that includes a reduction site (where the stone cores were further reduced/worked towards an end product). This finding is backed up by an analysis (in the same report as well as a later study of the larger are in Williams, D. & Barber, M. 1999) of several other sites in Mulligan's Flat which indicated further reduction was being undertaken on similar material in non-quarry areas (i.e. the average size of flakes and cores was smaller and there was a greater mix of material other than metamorphosed tuff). It was also noted that there is a number of further research questions that can be explored at the site if further analysis were conducted, such as exploring the distribution of artefacts between the different concentration zones to see if the differences are due to utilisation or taphonomic processes (i.e. is the movement of artefacts the result of people or natural forces), was there a particular type of end product that was being made for use elsewhere, or how does this site interact with the other known quarry sites in the area?

Physical condition and integrity

The site is considered to be intact and only affected by natural disturbances from animals and gravity causing the artefacts to slowly move down the hill

BACKGROUND INFORMATION – Mulligan’s Flat Aboriginal Stone Quarry

SITE PLAN

[Image removed - restricted information declared under s 54 of the *Heritage Act 2004*].

Figure 1 Mulligan's Flat Quarry site boundary and artefact concentrations

IMAGES

Image removed [Restricted information declared under s 54 of the *Heritage Act 2004*].

Figure 2 Mulligan's Flat Quarry site overview from top of spur looking southeast (ACT Heritage 2019)



Figure 3 Metamorphosed volcanic tuff artefact (ACT Heritage 2018)



Figure 4 Conjoined artefacts showing that the stone was flaked on site (ACT Heritage 2018)



Figure 5 A dense cluster of artefacts and non-artefactual stone (ACT Heritage 2018)



Figure 6 Outcropping bedrock with signs of direct quarrying (ACT Heritage 2019)

Image removed [Restricted information declared under s 54 of the *Heritage Act 2004*].

Figure 7 Artefact concentration #1 (ACT Heritage 2019)

Image removed [Restricted information declared under s 54 of the *Heritage Act 2004*].

Figure 8 Artefact Concentration #2 (ACT Heritage 2019)

Image removed [Restricted information declared under s 54 of the *Heritage Act 2004*].

Figure 9 Artefact concentration #3 (ACT Heritage 2019)

REFERENCES

Barber, M. & Williams, D. (1998) *An Archaeological Investigation of an Aboriginal Stone Quarry, Mulligan’s flat, Canberra Nature Park, Gungahlin, ACT*. Canberra.

Flood, J (1995). *The Moth Hunters: Aboriginal prehistory of the Australian Alps*. Australian Institute of Aboriginal Studies, Canberra.

Theden-Ringl, F (2016). Aboriginal presence in the high country: new dates from Namadgi Ranges in the Australian Capital Territory. *Australian Archaeology*. Vol. 82, No. 1, pp.25–42.

Williams, D. & Barber, M. (1999) *A Preliminary Cultural Resource Survey of Mulligan’s Flat Nature Reserve, Areas B & C, Gungahlin ACT*. Report to Canberra Nature Park.