



ACT Heritage Council

BACKGROUND INFORMATION

Gossan Hill

(Block 19 Section 4, Bruce)

At its meeting of 4 June 2015 the ACT Heritage Council decided that Gossan Hill was eligible for registration.

The information contained in this report was considered by the ACT Heritage Council in assessing the nomination for Gossan Hill against the heritage significance criteria outlined in s10 of the *Heritage Act 2004*.

HISTORY

The Gossan Hill area has been used as a geology teaching resource by several local educational institutions, such as the University of Canberra, Radford College and Lake Ginninderra College. It demonstrates notable complex geological formation processes and allows for the teaching of a variety of mapping and testing techniques. Loder and Bayly (1984) cite the Canberra College of Advanced Education (now the University of Canberra); "Since 1972, we have tried using several of the gossans which occur in the A.C.T. for carrying out geophysics work, but the College gossan gives by far the best response for teaching purposes." (p.4) In particular, they are referring to the site's compact nature being suited to display changing geophysical features and their relationships with each other and are excellent for teaching magnetic, self potential, resistivity, electromagnetic and seismic refraction methods. Research and teaching has continued in the area (Ken McQueen, pers. comm. 2013), with the most recent findings showing that the gossan at Gossan Hill is a true gossan, i.e. the surface outcrop of mineralisation, marking a time in the local geological history when ore-forming processes were locally active. The gossan is the expression of sulfide mineralisation developed during intrusion of granitic magma into the older Ordovician crust. The only other currently known true example being the old Cotter Mine, which has been heavily disturbed by mining activity. Previously identified gossans in the ACT have been shown to not be true gossans, such as Gubur Dhaura, which is a surficial ironstone. Dr McQueen has also noted that the road cutting along College Street is an important extension of Gossan Hill, providing a section through the underlying rocks and excellent examples of porphyritic granite, major faulting and fold structures, and that the place shows signs of being a skarn deposit, which is rare in the region, and is an excellent example of gossan boxwork.

Gossan Hill is included as a geological monument in Owen, et al (1989). It fits with the description of a geological monument given by Hardy (1987, p.107): "outcrops of rocks which have special significance for revealing fundamental aspects of geology and geological history...they are rare, irreplaceable, of a value unappreciated by most non-geologists unless the site happens to be aesthetically appealing or well known and of particular value for teaching and for scientific research." This description fits with Gossan Hill as it is now known to be rare in the region and this is known only due to the efforts of ongoing geological research and teaching.

Owen, et al, (1989) stated that the gossan is an uncommon rock in the local region and the site is notable for its exposure of the rock and its surrounding geology and as a teaching resource it is uniquely placed in the Canberra region with close proximity to the University of Canberra, Radford College and Lake Ginninderra College. The Gossan displays a complex geology in natural outcrops, erosional features and road cuttings that suits itself for the purposes of teaching and public education. Gossan Hill has been used as an important teaching site for several decades and provides students and those interested in the natural history of the ACT with information about geological formation processes. Its excellent exposure and proximity to teaching facilities mean that it will continue to be an important teaching site.

Aboriginal and European History

Gossan Hill is a possible ochre resource for past Aboriginal groups. Ochre has been associated with distinctive traditional practices in Aboriginal societies and is often an important part of ceremonies and meetings. Early European settlers in the area, Frederick Campbell and Richard Shumack, have both noted that the area was used for corroborees (Gillespie, 1992; Shumack, 1977). There have also been found several Aboriginal stone artefacts on Gossan Hill (Kabaila, 1997 and search of the ACT Heritage Database, July 2013). Areas that are associated with this distinctive way of life are becoming increasingly rare as they are encroached upon by urban development; another area in the ACT that is associated with a similar tradition is Gubur Dhaura in Franklin. An Aboriginal pathway follows the ridgeline system that runs from Gossan Hill northeast to Gubur Dhaura. The two sites are materially quite similar, with Gubur Dhaura being a much larger ochre resource and containing more substantial Aboriginal material culture.

Ochre had an important part to play in the lives of past Aboriginal people as it was significant in spiritual and cultural activities and was important as a commodity to trade. The use of ochre to paint bodies, tools/weapons and images is steeped in symbolism. There is a preference for the colour red, which Sagona (1994) suggests is a biological preference based on the psychophysiological principle of 'natural perceptual logic'. It is associated with blood and life and has been seen to be an important part of initiation ceremonies. Sagona goes on to suggest that the journey to procure ochre was also a ritualistic activity that followed a pathway with several stops and ritual gatherings along the way and that a group of 30 may expand up to over 300 by the time the ochre source has been reached. It was also noted that people would forego more accessible sources and go to great lengths to obtain the 'right' ochre with a particular colour or lustre.

Gossan Hill is also located on a possible Aboriginal pathway. Although protracted geological testing has erased direct evidence of past Aboriginal exploitation of the ochre there are still many Aboriginal artefacts to be found on the ridges, peaks and saddle of Gossan Hill. Prior to European settlement, Aboriginal people lived in the Canberra region for many thousands of years and the existence of stone artefacts on Gossan Hill confirms that Aboriginal people had used the site in the past.

Kabaila (1994) notes finding some ochre at a site in the suburb of Aranda at the northwest foothills of Black Mountain, which would support the idea of ochre transport along pathways, however the veracity of this ochre's origin is yet to be proven. Gossan Hill is part of an Aboriginal pathway that runs to the northeast following a low ridge system towards Gubur Dhaura, another ochre source and known Aboriginal site. It is also noteworthy that the pathway crosses another large site with a minor ochre source located in Crace.

The area was acquired by the Commonwealth for the Federal Capital Territory (FCT) in November 1913. Before this the land was held by several people and was covered by up to five blocks. The land was selected in 1865 by Samuel Shumack from the Campbell's Emu Bank estate and by 1888 the Parish of Canberra map shows that the blocks covering the area of Gossan Hill were Block 1 which was held by F. J. Davis, 156 by E. K. Grace and 157 by John Southwell. Neighbouring blocks were held by Peter Shumack and Frederick Campbell, who have left documents which describe a corroboree being held in the area (Gillespie, 1992; Shumack, 1977).

After the land was acquired for the establishment of the FCT, Gossan Hill remained undeveloped even as the flat areas surrounding it were developed into schools and suburban housing. In the mid 1980's the suburb of Bruce expanded into the lower western slopes of Gossan Hill with the Bruce Ridge West development (Loder and Bayly, 1984).

DESCRIPTION

Physical condition and integrity

Gossan Hill is a low irregularly shaped hill starting at 625m and rising up to 665m above sea level. It has two gentle peaks with a saddle at 650m. The gossan outcrop occurs on the northern spur and the Aboriginal cultural materials being generally located on relatively flat areas on spurs, peaks and in the saddle. There is a road cutting on the southern side of College Street which dissects the northern spur along the 630m contour and several walking tracks throughout.

The gossan has been subject to several decades of study by the nearby educational institutions and may have been examined by prospectors in the past. The most significant effect this has had is a possible costean which has left a pit ~1m in diameter and ~1m deep, although it is just as likely to have been the result of geophysics testing. There is also

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a bare patch which is likely the result of testing or collecting samples. There is another pit to the east of the gossan outcrop on the side slope, but it is overgrown and may simply be the result of a dead tree or previous animal burrows. The gossan outcrop may have also been subject to use by Aboriginal peoples for many thousands of years before this, however the effects of this are either not obvious or have been overshadowed by recent activities.

The ecology on Gossan Hill follows that for cleared lands and has undergone some regeneration through natural sources which is quite dense in some areas, particularly around the slopes of the eastern peak. There are several walking tracks that cover the hill and the area is well supplied with interpretive signage discussing the natural and cultural heritage of the area.

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SITE PLAN

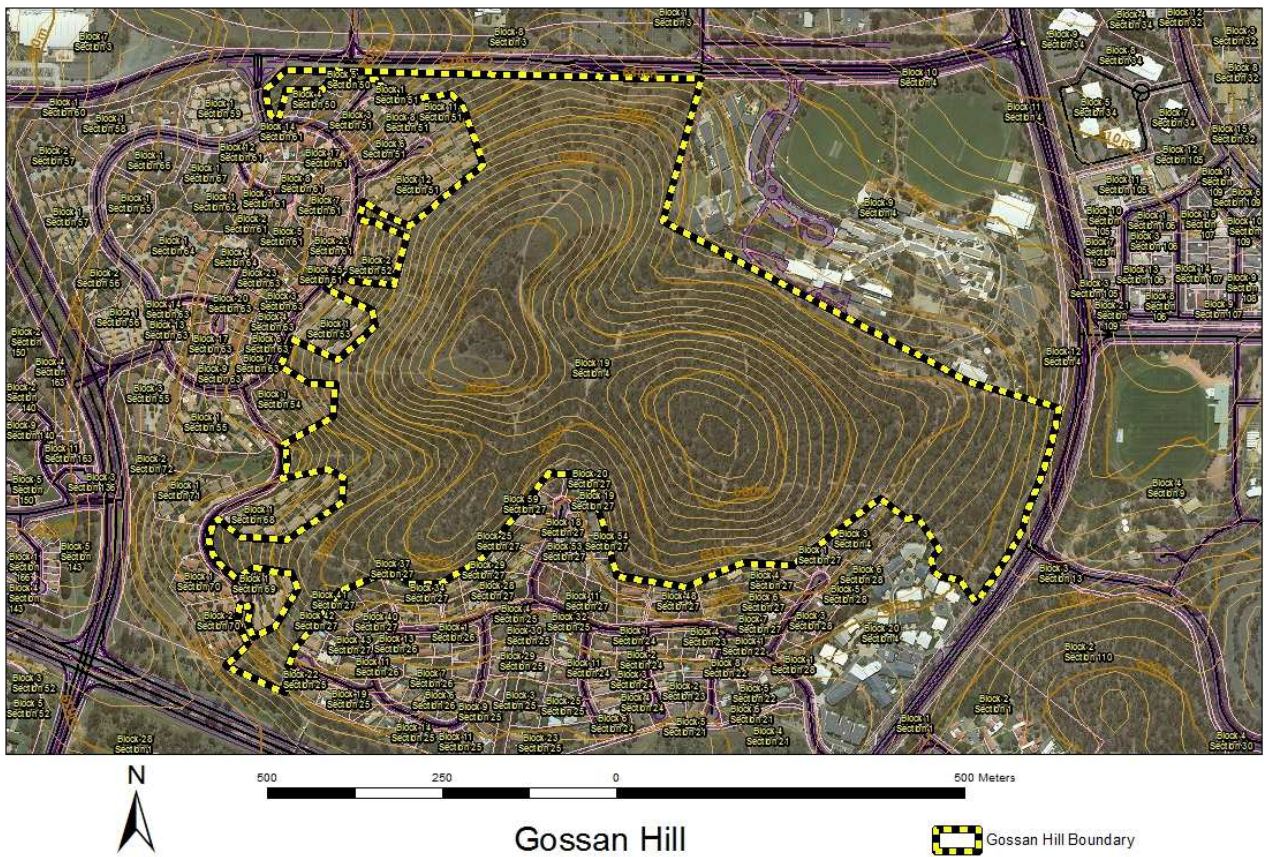


Image 1 Gossan Hill Site Boundary

Images



Image 2 Gossan Hill - northern spur looking south at gossan outcrop. (ACT Heritage Unit, 2013)



Image 4 Gossan Hill - likely costean pit for testing underlying mineralisation. (ACT Heritage Unit, 2013)



Image 3 Gossan Hill - red sediments adjacent to outcrop. (ACT Heritage Unit, 2013)



Image 5 Section of College St Cutting. (ACT Heritage Unit, 2013)

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PERSONAL COMMUNICATIONS

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