

PETROGLYPHS OF VICTORIA

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ABSTRACT: Victorian rock art in its Australian context is considered, focusing on petroglyphs and the natural markings mistaken for rock art. Nearly all known Victorian petroglyphs occur in limestone caves, with only three minor sites currently reported to be above ground. These occurrences are described briefly, and an explanation of their distribution in the context of Tasmanian and mainland rock art suites is attempted.

Keywords: Rock art, petroglyph, natural rock marking, cave art, Victoria

INTRODUCTION

Australia may be the country richest in rock art, but Victoria vies with Tasmania for the state poorest in rock art. Most of Australia's incredible wealth of rock art occurs in the continent's north. Moreover, the reasonably well-known examples of rock art of Victoria consist only of pictograms, i.e. rock paintings and stencils. These sites are concentrated in Gariwerd (the Grampians) in western Victoria, and include those to its east, at Mt Langi Ghiran and at Bunjils Shelter, and to the west, in the Black Range. The only other group of Victorian pictogram sites occurs near Beechworth in the northeast. A mysterious white-painted motif at Cloggs Cave near Buchan in the far east of the state is rather less known.

When it comes to the second type of rock art, that which was made by a reductive rather than additive process, Victoria presents an almost complete blank. Indeed, it is puzzling why the distribution of petroglyphs across Australia seems to respect the River Murray as its southeastern boundary. Although many researchers have sought to find petroglyphs, including rock engravings, in Victoria, these searches have mostly remained fruitless. There are numerous cases of rock markings that have been mistakenly described as rock art by archaeologists, but very few have ever been authenticated as genuine petroglyphs. Therefore, this review begins with such misidentifications.

NATURAL AND INCIDENTAL ROCK MARKINGS

One site of non-petroglyphic rock markings has been listed as a registered rock art site by the former Victorian Archaeological Survey — the Sutherland Creek site at Maude near Geelong (Bolger 1979). On a slope in farmland, several circular markings on a thin loose slab of sandstone were identified as circle petroglyphs, similar

to those of the 'Cleland Hills Type' reported in Northern Territory (Edwards 1971). The markings consist of very narrow grooves with vertical sides, impossible to create with stone tools. Instead, they were cut with rotating steel tools of two imperial sizes which, in some cases, slipped sideways in the process (Bednarik 1994: fig. 17).

This is not the only circular rock marking from the Geelong district considered to be a petroglyph. Another found on a block of basalt was suggested to be the result of a rotating steel object, perhaps a rock drill (Bednarik 1994: 39), and some months later the 19th-century rock drill that yielded such marks was identified (R.G. Gunn, pers. comm.). Naturally caused circular patterns resembling circle petroglyphs derive from various sources. On an igneous rock, they may arise from xenolithic inclusions that have been emphasised by weathering. An elaborate example is the petrographic marking on basalt near Maryborough in central Victoria, featuring a large circle with two small central circles and a pattern of radial spokes (Bednarik 2007: fig. 2). Near the granite peak of Mt Korong near Wedderburn, there are several large circular depressions, commonly with a central pit, which have a xenolithic origin, although they appear artificial (Bednarik 2007: fig. 3). Numerous much smaller circles, joined circles or ellipses found at the very peak of Mt Loch in the Victorian Alps were formed in basalt and have also been demonstrated to be attributable to xenoliths (Bednarik 2007: fig. 4).

Some archaeologists have considered that these examples of natural rock markings are anthropogenic. Although Indigenous people may have attributed cultural meanings to them, they are intrinsically natural features. Several panels of hemispherical depressions, found south of Horsham in western Victoria, bear an uncanny resemblance to cupules, which are humanly made spherical cap- or

dome-shaped petroglyphs found in abundance worldwide. The Horsham phenomena, however, are attributed to a weathering process that removed well-graded pebble layers from a layered sandstone matrix, leaving behind their impressions or negatives (Bednarik 2007: fig. 7).

One kind of natural rock markings whose identification has engendered much debate are animal markings, especially those made by claws in limestone caves. These range in size from those made by small rodents and roosting chiroptera to those left behind by megafauna species. Many different types are distinguished (Arman & Prideaux 2016; Bednarik 1991, 1993). Some are caused by species with poor climbing ability that had tumbled into caves and tried to escape; some are climbing marks, or exploratory marks as the animals moved in the darkness. The larger kinds of claw markings have often been misidentified as anthropogenic, as engravings, and in one case in South Australia even as a possible form of writing by Aborigines. Another incongruous proposition was that in one Western Australian cave, the ceiling markings were made with severed animal paws mounted on sticks because the archaeologist in question had not realised that the floor of the cave had subsided. The controversy concerning the

interpretation of these cave claw markings in a series of Australian caves, including in Victoria, was resolved by their scientific testing, using experimentation and studying animal scratches in hundreds of caves, many of which had never been accessible to humans without caving equipment (Bednarik 1994, 2004). The diagnostics of such markings are now fully appreciated.

The most recently found natural rock markings that were initially thought to be circular petroglyphs are three groups in different parts of the Gariwerd ranges. They occur as clusters in sandstone and vary considerably in size, from about 1.5 cm to 13 cm in diameter (Figure 1). Microscopic examination has shown that there is no sign of percussion in the grooves and that the rock fabric within the grooves differs in respect of composition and colour. Therefore, these petroglyph-like rings were formed by differential weathering and erosion rates between the grooves and the adjacent rock. Similar features were also examined on Mt Arapiles, west of Gariwerd. Unfortunately, the cause of this phenomenon has not yet been established, in contrast with various other such natural occurrences that resemble petroglyphs (e.g. Bednarik 1994, 2019).

VICTORIAN CAVE PETROGLYPHS

Most of the known petroglyphs of Victoria occur underground, in a series of limestone caves in the state's far west and, in one case, in the east. This corpus of rock art is relatively small, but it includes fascinating examples, including the putative oldest known rock art in Australia. The largest body of cave art in Australia extends from the region of Millicent to Portland, accounting for forty-one of the fifty-one known cave art sites in the country (Bednarik 1990). Thirteen of them are located in Victoria and twelve of them contain petroglyphs.

New Guinea 2 Cave, on the Snowy River near Buchan, has been subjected to major archaeological investigations that led to establishing the presence of Pleistocene occupation deposits (Ossa et al. 1995). The cave walls feature finger flutings as well as animal claw markings. Finger fluting is a form of cave art found in just six countries worldwide, and is produced by drawing the fingertips of a human hand over initially very soft deposits of a speleothem called 'moonmilk'. This white precipitate, mainly of calcium carbonate, can subsequently harden through desiccation and mineralisation (Bednarik 1999). Because the deposit may be subjected to various modification processes, effective identification of finger flutings can be challenging, and that was also the case at this site. Cloggs Cave nearby, as mentioned, contains a single white-painted motif, consisting mainly of the oxalate mineral weddelite (B. Birch, pers. comm.).



Figure 1: Natural rock marking on sandstone, resembling a circle petroglyph. Gariwerd (Grampians), western Victoria.

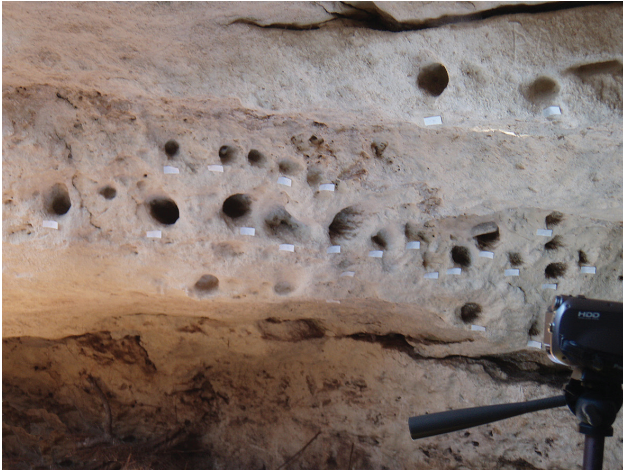


Figure 2: Part of the panel of deep pits or cupules in Ngrang Cave, western Victoria, during the forensic study.

Ngrang Cave, in the far west of Victoria, is a partially collapsed tunnel cave of a former subterranean tributary of the Glenelg River. It contains three forms of rock art: finger flutings in the deep interior of the cave; a series of 52 ‘deep pits’, which are effectively very deep cupules (Figure 2), close to the entrance; and one single petroglyph shaped like a boomerang. From 2007 to 2010, the site was the setting of a detailed forensic investigation to determine how the deep cupules were made, including extensive replication experiments. The results of this work imply that the tools used in the production of the markings were fractured long-bones of macropods and there was a deliberate endeavour to make the cupules as deep as possible, while maintaining the smallest-possible opening diameter (Bednarik & Montelle 2016).

There are several sites in this group with minor rock art occurrences. Wirlap Shelter features minor petroglyphs and the only pigmented rock art known in the region. Yalo-ing Cave contains a small panel of finger flutings, while both Kra Cave and Kriton Cave show a larger area of finger flutings as well as extensive tool markings incised into the cave walls. Kapen-karo Cave includes only a small set of tool marks, while shallow engravings have been found in Bat Ridges Caves 2 and 6. Two very small occurrences of finger flutings were discovered in Yambuk Cave, while Mirnat Cave features fairly extensive petroglyphs of a type called Karake genre.

Of particular interest is Yaranda Cave, which contains, besides several deep pits and some tool marks, the most complex panel of finger flutings known in the world. Although partly lost to speleo-weathering, the panel still extends over many square metres, covering part of the ceiling of the large tunnel cave. In contrast to the random arrangement of other finger flutings, the main panel in this cave consists of a large arrangement of structured circular patterns (Figure 3). There is a second panel elsewhere in

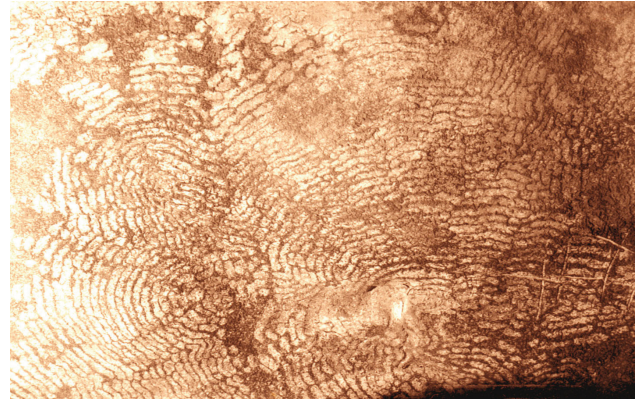


Figure 3: Partial view of the finger flutings on the ceiling of Yaranda Cave, western Victoria.

the cave, and in both cases, claw markings of the marsupial lion (*Thylacoleo carnifex*) were superimposed over the flutings (Arman & Prideaux 2016; Bednarik 1991). The significance of this observation lies in the assumption that this large Australian carnivore became extinct between 40 ka and 30 ka ago. These finger flutings are therefore the earliest rock art currently known in the continent. They may be of an age roughly matching that of the recently discovered finger flutings in the Austrian Drachenhöhle (Bednarik in press).

OPEN-AIR PETROGLYPHS

Although petroglyphs in caves are well represented in Victoria — second only to South Australia — those above ground are extremely rare, with only three small sites of this phenomenon known. Two were reported only recently, both located in Gariwerd, namely the rock shelters of Wartook Lookout 1 (WO-1) and Scrubby Creek 2 (SC-2). At WO-1, a vague pounded shape was found stratified between pictograms, which demonstrates its pre-Historic attribution (Gunn & Goodes 2019). SC-2 features, in addition to charcoal drawings and white paintings, six indistinct patches of abrading and two anthropomorphs. The latter were created by first scratching the outlines and then abrading the interior (Gunn et al. in press). Stratigraphically, these abraded motifs lie between two episodes of white paintings.

The third above-ground petroglyph site presently known in Victoria has not been publicised before now. It is located on the shore of Lake Burrumbeet, a shallow eutrophic lake west of Ballarat, and has two components. One is a basalt block bearing a series of nine deep, subparallel grooves, up to 185 mm long and mostly about 10 mm deep (Figure 4). They occupy an area 405 mm wide, and the median maximum width of the grooves is 21 mm. The grooves were first hammered, then abraded, and are only partially patinated relative to the unmodified rock surface. The block bears numerous vesicles, which were avoided in the



Figure 4: Petroglyphs on a block at the shore of Lake Burrumbeet, western Victoria.

placement of the grooves. Such subparallel grooves are a common feature in Australian petroglyph assemblages, but the age and meaning of this arrangement are unknown. The motif was covered densely by lichen and, judging from the nearby storm-erosion bank, was located close to the high-water mark of the lake, the water level of which fluctuates considerably. Stone artefacts can be observed in the vicinity of the site.

Around 100 m from the described block lies a large slab of water-worn basalt, 1.55 m long and 1.04 m wide. Its flat horizontal upper surface bears seven cupules ranging in diameter from 30 mm to 62 mm (mean 44.1 mm) and

in depth from 7.8 mm to 11.4 mm (mean 9.3 mm). Their weathering rind is >1 mm thick, suggesting that the cupules should be >1000 years old (Figure 5).

DISCUSSION

These two fully unsheltered petroglyph features on the shore of Lake Burrumbeet are currently thought to be unique in Victoria. This is despite the extensive searches undertaken to find such phenomena, and the many misidentifications which have resulted. The paucity of such occurrences is puzzling, particularly because most of the known rock art in Tasmania consists of petroglyphs (Bednarik et al. 2007; Sims 1977, 2008). What renders this even more surprising are the distinct similarities between Tasmanian rock art and the Karake-style petroglyphs in the Mt Gambier region, which are believed to be Late Pleistocene, based on radiocarbon and uranium-series dating attempts in Malangine Cave (Bednarik 1984). This suggests that the Karake petroglyph convention was introduced in Tasmania when the island was connected to the Australian mainland. After the separation of Tasmania around 12,000 years ago, the tradition continued there into the late Holocene, while on the mainland it was replaced by later rock art traditions. Therefore, the near absence of petroglyphs other than in caves in Victoria remains intriguing and tantalising.

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Figure 5: Cupules on basalt slab at Lake Burrumbeet.

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