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THE ROCK ART OF SNAKE ROCK: A MAJOR WIRADJURI CULTURAL PLACE IN CENTRAL NSW, AUSTRALIA

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Abstract. Snake Rock is a singular and major Wiradjuri rock art site in central New South Wales, Australia. Along with other rock art sites in the region, it has not been previously published. Local Wiradjuri tradition describes the site as a highly important congregation place for regional meetings and ceremonies. Detailed recording of Snake Rock documented 96 images in a repertoire of figurative and non-figurative paintings and drawings, and hand prints. The multi-layered art does not conform to the surrounding regional repertoires of south-east Australia, making it, both culturally and archaeologically, a highly significant place.

Introduction

Snake Rock is a previously unpublished and little-known rock art site. It lies within northern Wiradjuri lands in New South Wales: 50 km south-west of Dubbo and 300 km NW of Sydney (Fig. 1). The northern Wiradjuri, the Bogan River Wiradjuri People, were a distinct sub-group in the accounts of early explorers (Cameron 1900) and are recognised as such by the Wiradjuri today (Waters 2005). The Bogan River Wiradjuri recognise a further subdivision within their traditional area. Snake Rock is located within the area of the Upper Bogan River or Peak Hill People. Little rock art has been recorded from the extensive Wiradjuri lands, principally because there are few rock outcrops in an essentially riverine basin. Around the perimeter of the basin are the rock art areas of neighbouring language groups (Gunn 2011):

- To the east, the eastern slopes of the mountains of the Great Divide, which house the dense sandstone rock art areas of Hawkesbury-Shoalhaven.
- To the southeast, the scattered and varied Southern Granite sites of the western slopes of the Alps.
- To the far south-west, the sandstones of Greater Gariwerd.
- To the northwest, the sandstones of the highly decorated Greater Cobar.

Each of these areas has contrasting art styles and, unlike the Wiradjuri, incorporates two or more language groups (Horton 1994). Superficially, the art at Snake Rock is most likely aligned with that of the Southern Granites, and it bears minimal relationship to that of the closer figurative-stencil art of Greater Cobar (McCarthy 1976) and the drawing/petroglyph/stencil art of Hawkesbury-Shoalhaven (Officer 1991).

The prime difference between the art at Snake Rock and that of the Southern Granites is the lack of any images of small anthropomorphs or hand stencils. In all surrounding rock art areas, small (<20 cm) anthropomorphs form a high proportion of their images.

The detailed recording of rock art throughout Australia is becoming an increasingly urgent priority. In many areas, rock art that was photographed 100 or even 50 years ago has markedly deteriorated, and in some cases, all but vanished. This is particularly so with the more recent rock art that is mostly done in white pigment (note Clarke 1976, 1978). While this trend is especially noticeable at places open to general tourism, it is also becoming apparent at other, less visited sites, owing to various natural or feral agencies (Bednarik 2002; Taçon 2021; Smith et al. 2022; Gunn et al. 2024). While such deterioration was the subject of attention in the 1970s–80s (Edwards 1974, 1975, 1979; Pearson 1978; Sullivan 1984; Rosenfeld 1985; Gale and Jacobs 1987), nationally the focus has changed from the role of management-implemented protective measures, to a lack of impetus and funding by Government site-management agencies. While the change has been largely compensated for by high quality recording of rock art from a Traditional Owner perspective, particularly in northern Australia (Taçon 1989; Brady 2010; May et al. 2010; McDonald and Veth 2012; Goldhahn et al. 2022; li-Yanyuwa li-Wirdiwalangu et al. 2023; Cole et al. 2024), the publication of individual site recordings from Australian journals has waned, and responsible site management has declined: this is evidenced by the poor signage and lack of upkeep at public sites throughout the country (pers. obs. 1978–2005). One of the aspects lost, however, is a record of the *place* where the rock art has been positioned. Throughout Australia

lia, there are still rock art areas for which no representative recordings are available, making the assessment of regional patterns imprecise. While some Aboriginal groups prefer to keep such information restricted as a safeguard for site preservation, in other areas Aboriginal communities, particularly those in joint-management arrangements of their lands, are keen to have more of their heritage recorded in detail and have their sites registered for legal protection (Gunn 2024; Gunn et al. 2025). Here we present the results of such a project, describing the art at Snake Rock and assessing the position of the art in the broader regional context of the rock art of south-eastern Australia, in the hope that further in-detail recordings will again become an essential part of management priorities.



Figure 1. Location of Snake Rock and Wiradjuri country. Red dots – major towns. Black italics – other rock art sites mentioned (Wiradjuri area from Horton 1994).

The Wiradjuri significance of Snake Rock

Snake Rock (Fig. 2) is of high significance to all Wiradjuri People. As expressed by the Peak Hill–Bogan River Advisory Committee in 2016 [now the Peak Hill Aboriginal Advisory Committee]: “Snake Rock is significant to us [Wiradjuri people] spiritually because it connects us to our Country and to our people who have gone before” (NPWS 2016).

And as stated in the Site Management Plan:

The Peak Hill Aboriginal Advisory Committee regards the whole place of Snake Rock to be significant and consider the artwork as only one component of the place. Snake Rock and other sites such as Bulgandramine Mission act as symbolic markers for the pathway network that Aboriginal people used in crossing Country in pre-European times and during the more recent past, for resource gathering, trade, kinship and ceremonial activities (Waters 2005).

Snake Rock continues to be used by the Peak Hill Ab-

original Advisory Committee as a place to celebrate and share cultural knowledge. Snake Rock provides opportunities for the local Aboriginal community members to connect to Country and to promote and communicate the values of their cultural landscape. The site provides a place for the process of passing on knowledge of Country and of the specific place to younger generations (NPWS 2016: 11–12).

Rock art in Wiradjuri Country

Snake Rock lies between the major rock art regions of Hawkesbury-Shoalhaven to the east and Greater Cobar to the west. The hills in which the site sits form a divide between the riverine lands of the Macquarie River to the north and the plains of the Lachlan and Murrumbidgee Rivers to the south. Much of Wiradjuri country, then, consists of the flat floodplains and low hills of the Lachlan and Macquarie River systems: landforms largely lacking in rock outcrops.



Figure 2. Snake Rock art shelter from the east (photograph LCD).

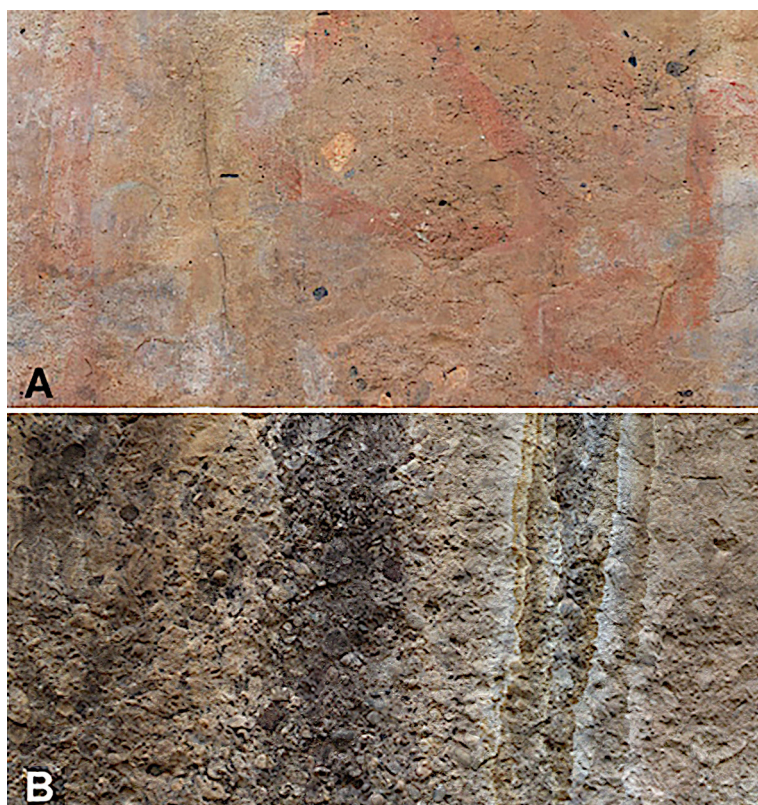


Figure 3. The wall rock surface. A: smoother surfaces of quartzose sandstone with little conglomerate: the existing art is restricted to these more even surfaces. B: irregular surfaces of conglomerate sandstone (courtesy of Andrew Thorn).

The recorded rock art sites all lie on the more elevated periphery of the drainage basin, where a small number of rock outcrops provide suitable protective shelters. There are other reported rock art sites within this area, but these have yet to be recorded. These include a few small art sites within 20 km of Snake Rock.

While the large art corpus of the coastal Greater Sydney region and the adjacent Hawkesbury-Shoalhaven regions have been well studied (e.g. Campbell 1899; McCarthy 1941–56; Sim 1963–66; SPG 1983; Officer 1984, 1992; McDonald 1991, 2008; Taçon et al. 2005; Dibden 2019), the art of the inland Cobar Pediplain has received less attention (Cameron 1900; McCarthy 1976; Gunn 1983a). Between these, the region of the riverine plains from east of Mildura to Bigga on the Great Dividing Range, in which Snake Rock lies, has received little archaeological attention, and only one of its rock art sites has previously been fully documented (Officer 1991). In addition, little other reported archaeological work has been undertaken in these hills or the adjacent plains.

Those recorded rock art sites within the Wiradjuri country, in addition to Snake Rock, include 18 sites in the south of the Greater Cobar art area, and at Bigga to the south-east (Fig. 1). The southern Greater Cobar sites consist mainly of small shelters with hand stencils and small, white, solid-bodied, ‘dancing’ figures (Cameron 1900; Gunn 1983a). The exception is a

low shelter dominated by long, complex, non-figurative designs, in addition to low numbers of hand prints, hand stencils and small figures (Gunn 1983a). The general repertoires of these southern sites, however, are consistent with the more recent style of the Greater Cobar region, suggesting a greater affiliation with their northern neighbouring language groups than those to the east (towards Snake Rock). The art at Bigga to the south-east of Snake Rock contains a long, undulating ‘snake-like’ image in a cream colour, numerous fat-bodied ‘dancing’ figures, and other small schematic figures and animals (Officer 1991). There is an absence of the hand motif at Bigga and its primarily figurative art is consistent with that of the Southern Granites region.

Snake Rock art site

Snake Rock is a low, but prominent, sandstone outlier on the inland slopes of the Great Dividing Range (see Fig. 2). The westerly-dipping formation is 900 m long and 100 m wide, with a 20 m cliff-face on its eastern side, and a strike tending north-south (at 345°). The rock is formed of layered Devonian sandstones of the Wallingalair Group, steeply dipping to the west at c. 35°. At the rock art shelter, the exposed rock face is Coonardoo sandstone: a coarse-grained,

thickly-bedded, massive- to cross-bedded quartzose sandstone with conglomerate near its base (Fig. 3). The basal conglomerate does not form a distinct layer but merges with the overlying clearer sandstone; this feature is readily visible in the wall of the shelter.

The surrounding landscape is flat, with no major creeks or drainage lines traversing the area. Water, however, is seasonally available in ponding water on top of the outcrop following rain events (NPWS 2016: 6). Around the outcrop the vegetation consists of remnant areas of box woodland and, on the rocky outcrop, acacia with an herbaceous to scrubby understory (from pers. obs. and extrapolated from Norris and Thomas 1991), most of which was cleared for pasture in the early years of settlement (NPWS 2016: 7).

The site (NPSW site 35-5-0002) is now within the ‘Snake Rock Aboriginal Area’, jointly managed by the NPWS and the Peak Hill Aboriginal Advisory Group (Waters 2005: 33). While the site has been known to the local community for over 100 years, as indicated by graffiti dated to the early 1900s, it was little visited owing to it being on private land. By 1977, when the site was still within the grazing property of Belah Park, it was being promoted by the local shire and became a popular tourist and picnic spot. In 2006 the site and surrounds were declared an ‘Aboriginal Area’ and a management plan was produced (NPWS 2016). Graffiti and other forms of vandalism were noted in 1977



Figure 4. Watercolour of the Snake Rock art panel by Bernadette Drabsch (2011) (NPWS files, Dubbo).

as being deleterious to the site, and the first graffiti removal was undertaken in 1984 (Lambert 2004: 3) and again in 2015 by a conservator, Andrew Thorn. The existing records of the site and site works, however, are brief and cursory (NPWS files; Hutchins n.d.; Lambert 2004; Waters 2005; Gunn and Douglas 2014). Likewise, the rock art and archaeology of the area have yet to be adequately studied, and other smaller reported art sites elsewhere in the region have still to be assessed.

Previous studies of the rock art

Snake Rock was apparently first reported to the Australian Museum in the early 1960s (Waters 2005: 33). The site has also been referred to by at least two other names: *Beulah Park* (the name of the property it was previously within) and *Numalla* (Waters 2005: 33). The origin of the word Numalla is unknown. The archaeological potential of the site was noted in a pamphlet from the Parkes and District Historical Society in 1976 (Waters 2005: 33), but as mentioned, no excavations or other archaeological studies here have been reported. The full history of the Snake Rock Aboriginal Area and its Aboriginal affiliations are detailed by Waters 2005 and NPWS 2016 and will not be recapped here.

Previous visual recordings of the rock art are a rough sketch by Hutchins in 2003, and a more detailed watercolour by Drabsch in 2011 (Fig. 4). In mid-2014, the site and its rock art were photographed in detail as part of a damage assessment (Gunn and Douglas 2014). In 2024 a further study, the subject of this paper, was undertaken to record the art in detail and to assess its temporal sequence (Gunn et al. 2024).

Methods

Following email discussions, an in-person meeting was held with the Aboriginal Advisory Group on the 27th May 2024, where the project and the methods were presented in detail and approved by the Board. Following submission and consideration of the final report in November 2024, the Advisory Working Group then gave permission for the preparation of

this paper for publication.

The fieldwork for the project was conducted on the 28th–29th May in the company of Wiradjuri members Robert Robinson (NPWS), Karryn Schafer (Advisory Group member) and members of her family, along with Richard Cohen and his family.

The site was mapped with tape and a compass, and the site and its rock art were extensively photographed. The floor area of the shelter was assessed for its archaeological potential, and surface artefact concentrations were noted. The photographs of the art were later artificially enhanced using the DStretch© programme, for clearer identification of each image (Harman 2008; Gunn et al. 2010). Each image at the site was numbered and described by attributes and its class of motif, with the full list and illustrations given in Gunn et al. (2024). For this paper, a motif is a CLASS of similar images. Images, such as a bar row, can be made from a series of graphic elements (individual bars). For example, an individual row of bars, a bar row, is composed of a number of bar elements.

The photographs and the DStretch images were then used in Photoshop© to produce photo-tracings of the art. All instances of superpositionings were recorded, and a Harris Matrix was used to determine the sequence of the art (Harris and Gunn 2018; Gunn et al. 2022). The art occurs on two panels: art panel A and B (Fig. 3). The larger art panel A was sub-divided into four groups for clarity of interpretation and the results then amalgamated (see Gunn et al. 2024). Art panel B is a small panel with a single motif – a bar pair. Following analysis of art panel A with the Harris Matrix, the images on both panels were aggregated into three rock art periods, and an art history of the site was prepared.

The shelter

The shelter is within a cliff-line on the eastern side of the westerly-dipping (76°), outcrop. The art and artefact scatters are limited to a 56 m-long section of the cliff, with a maximum depth of 3 m and an overhang height of 6 m (Figs 5 and 6). At this point, the

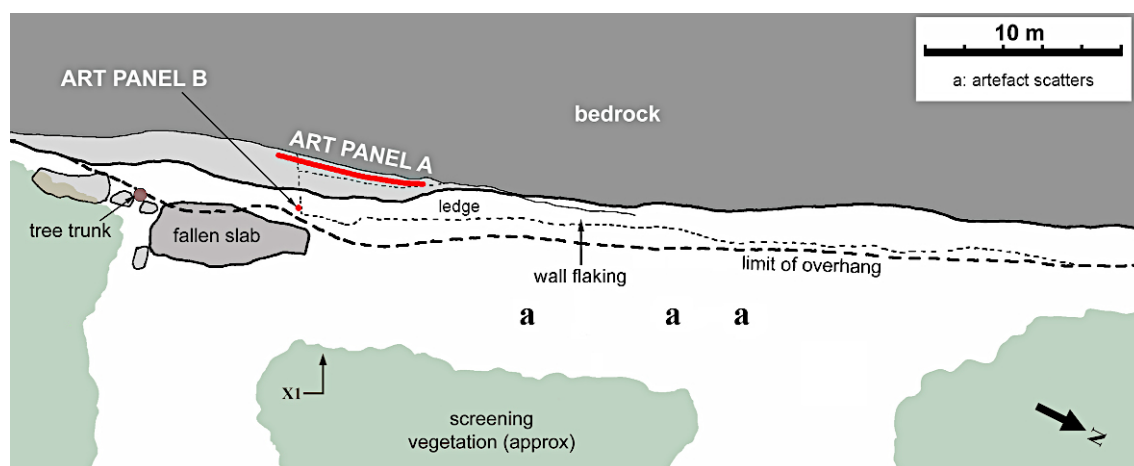


Figure 5. Plan of the Snake Rock art shelter showing features discussed. *a*: artefact concentrations revealed by dripline erosion below the limit of the overhang.

cliff-face continues up vertically to 18 m. The shelter is essentially a straight, overhanging wall with no sheltering end-wings. The narrow overhang affords only limited shelter to occupants in wet weather, although it is high enough to provide protection from cold south-westerly winter winds, and also from afternoon heat during the height of summer. The shelter sits on a slight rise (terrace) that holds screening vegetation, which has protected the art panel from much intense

direct sunlight. The top of the shelter affords a broad view of the frontal landscape.

The rear wall of the shelter has a horizontal ledge some two metres above the floor, running across most of its length (Fig. 6). The ledge varies in width from around one metre to all but flush with the wall. The larger art panel (A) is above this ledge which would have been the platform from which the majority of the art was produced. Access to the ledge requires a simple climb at its southern end, where a part of the ledge has broken away and slid/fallen onto the floor deposit below. This break appears not to be recent, but whether it happened before or after initial Aboriginal use of the site is unknown. That Aboriginal people were using the site after the rock-fall is demonstrated by the presence of art on the exposed, vertical end of the ledge created by the break (art panel B; Figs 5 and 6).

The floor of the shelter is essentially a flat terrace for most of its length; bedrock exposures and variable vegetation growth on the shelter floor suggest that the depth of the soil differs considerably. A number of stone artefacts have been exposed in several areas of degraded soil (such as along the dripline). The artefacts observed were mostly made from milky-quartz pebbles. In at least one instance, a pebble within the bedrock wall had been struck (battered), either to remove single flakes from the protruding pebble or in an attempt to remove the whole pebble for further reduction. Other pebbles used were most likely collected from the gravels around the rock, derived from the natural breakdown of the conglomerate.

The rock art

The rock art at Snake Rock consists of 96 images. These occur on the rear wall of the shelter: art panel A with 95 images; and on the broken, southern face of the central rock ledge, art panel B with one image (a bar pair). The position of art panel A coincides with the largest area of smooth surface on the wall. Other small areas of smooth rock surface occur further along the wall to the north, but none contain any art or pigment

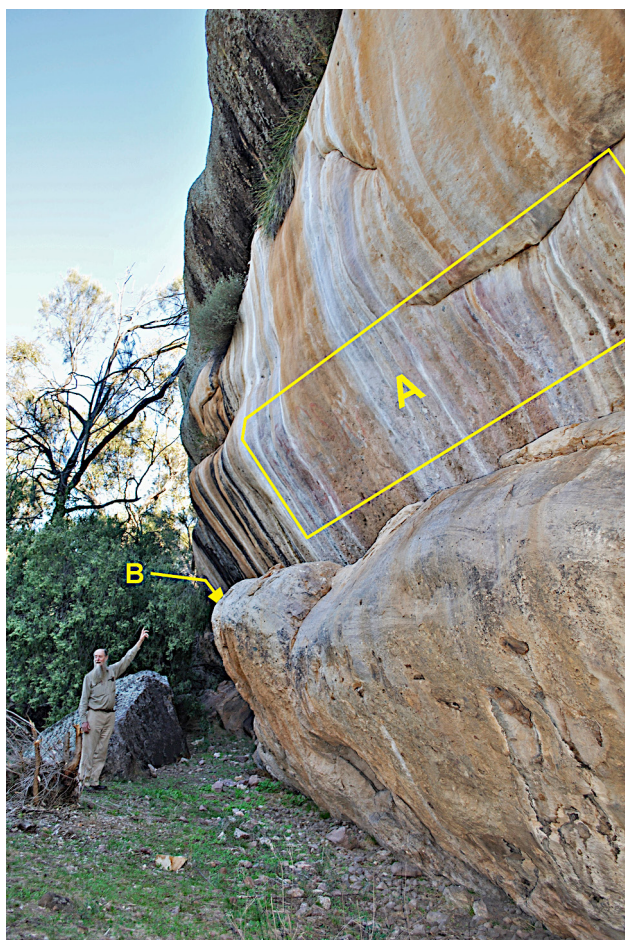


Figure 6. Profile of the shelter looking to the south (photograph by LCD).

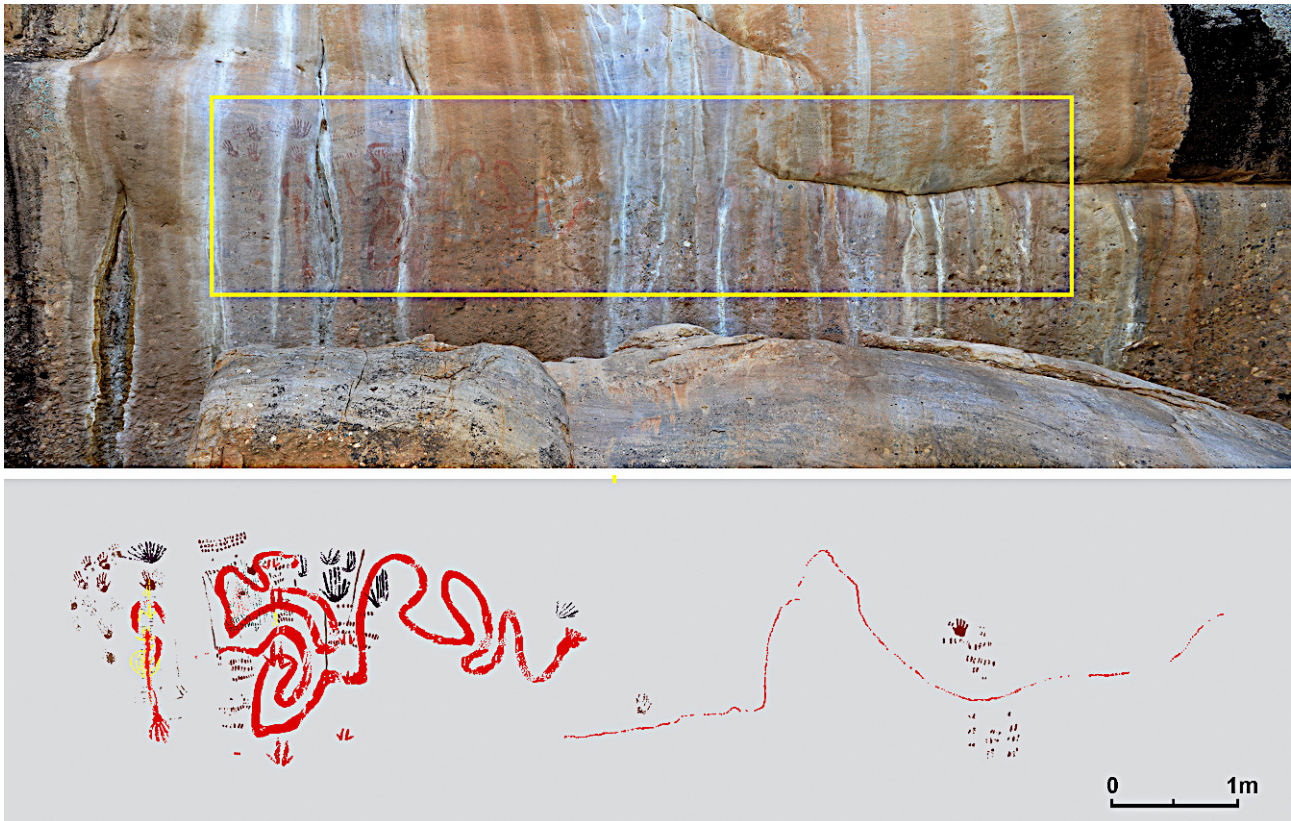


Figure 7. Rock art panel A: panorama and photo-tracing. White stripes in the photograph are salt deposits.

remnants.

The rock art panels

Rock art panel A is 9.5 m long and 2.2 m high, and is around 4 m above the ground (Figs 6 and 7). The art panel is accessible from a rock ledge, the top of which is 3 m above the ground. The wall here overhangs at an angle of 25° from the vertical. As mentioned above, the wall consists of areas of both smooth sandstone and dense conglomerate, and art panel A extends over the largest area of smooth rock surface. The art panel and its associated images are severely damaged by water-run erasure and deposited stripes of white-salt concretions. These natural processes have left all of the rock art in poor to very poor conditions.

The art is visually dominated by a large composition on the southern (left) end of art panel A. The composition consists of a curled 'snake' positioned



Figure 8. Superpositioning and variation of images in the densest section of Art Panel A. Photograph and corresponding photo-tracing.

over a 3.7 m long, composite 'snake-like' creature (Fig. 8). These, and a number of other aspects of the art that are unusual or unique, will be discussed below.

Art panel B is a vertical face at the southern end of the rock ledge, exposed by the breaking away of the southern section of the ledge (Figs 5 and 9). The

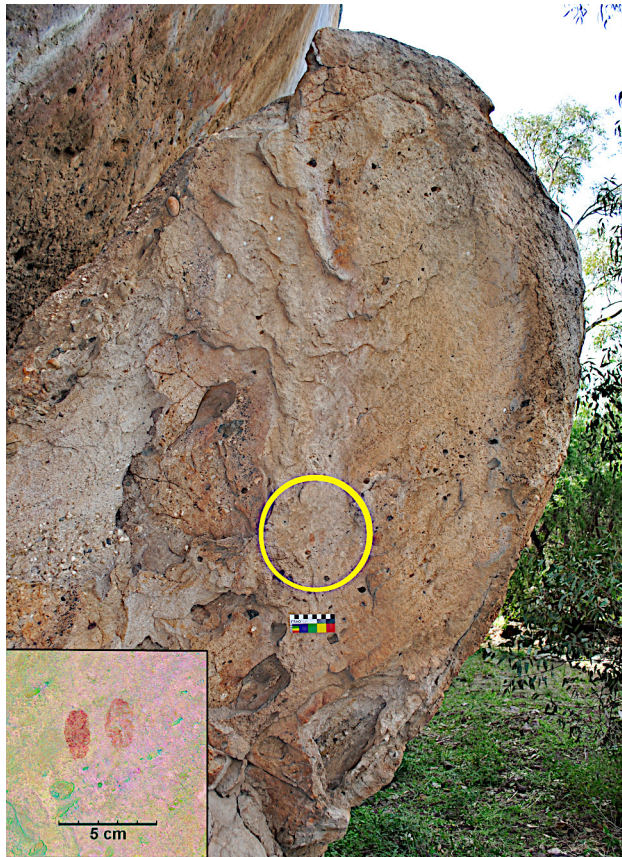


Figure 9. Rock art panel B showing the location of the bar pair with DStretch_crgb10 enhancement (inset).

exposed face is 1.7 m high and one metre wide, sitting at right angles to the rear wall of the shelter. The outer half of the face is water-wash, the inner half is a rough-textured surface, leaving only a narrow strip suitable for art placement. As mentioned above, the panel contains a single motif: a pair of red bars (Fig. 9). One bar of the pair is readily visible, and the other is almost indistinct. The difference in pigment density could derive from being produced one directly after the other, the left first, then the right, but without the finger paint being replenished. It seems unlikely, given their common attributes and parallel positioning, that they were not contemporaneous.

The character of the Snake Rock art

Technique and colour

The rock art was produced by painting (using either a finger or a brush), drawing and printing (using either hand-palm prints or fingertip dots). The execution of the paintings varies from careful to rough placement (bars and dots), skilfully executed brushwork (plant forms and kangaroo tracks), and the controlled, broad sweeps of the composite creature. The long, thin snake-like line has been positioned in relation to the topography of the wall suggestive of thoughtful placement and execution. The drawings by contrast have been applied rapidly with little control over their arrangement. The peripheral distribution of

Technique	Colour	Sub-totals	Total
Painting	Red	38	70
	Dark red	28	
	Yellow	4	
Printing	Red	12	20
	Dark-red	7	
	Unclear	1	
Drawing	Black	5	6
	Red	1	

Table 1. Technique numbers by colour.

Motif type	Art panel A	Art panel B	TOTAL
Preforms			
Hand left	8		8
Hand right	3		3
TOTAL	11		11
Hand unknown (fragments)	7		7
Free-forms			
Dot	2		2
Dot set	1		1
Bar	5		5
Bar pair	11	1	12
Bar row	23		23
Bar set	4		4
Bar column	1		1
Line straight	2		2
Line undulating	1		1
Line pair	1		1
Line set	5		5
Design apex	8		8
Roo track	2		2
Roo trail	2		2
Anthropomorph	1		1
'Snake'	1		1
'Composite creature'	1		1
Smear	1		1
TOTAL	72	1	73
Fragments	5		5

Table 2. Motif type numbers for each art panel.

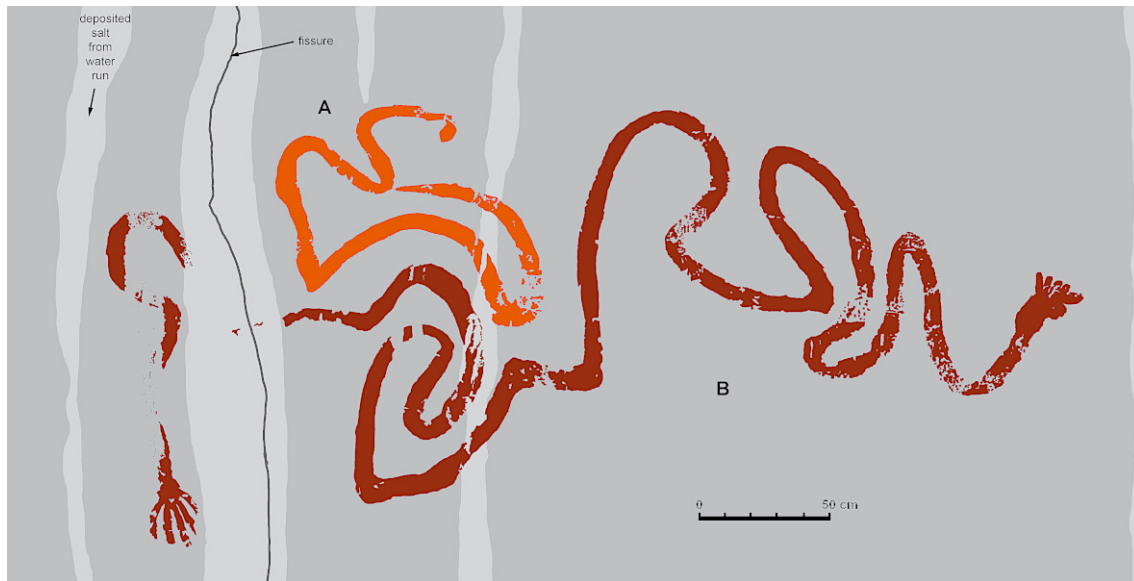


Figure 10. Photo-tracing of the two principal 'snake-like' images.

the hand prints suggests they were done rapidly and somewhat ad hoc in their placement.

Three coloured pigments were used: red, yellow, and black (Table 1). Black (most likely charcoal) is only present in drawings, yellow pigment only in paintings. The red, which varies considerably in hue and chroma from purple-red to pink-red, has been used for painting, drawing and printing. It is possible that the variations in the red hues are a product of differential weathering of the same initial red ochre pigment and so, at this stage, the red hues have been differentiated into only two extreme groups: mid-red (red) and a deep, purple-red (dark red).

Motif types

Twenty-one motif types were recorded from the 84 images (Table 2). The motif types include both preforms and free-forms (cf. Rosenfeld 1999). The preforms are represented by hand prints and dots, while the free-forms include tracks (macropods), animals ('snake'), 'composite creature', and non-figurative images (bars, lines and apex designs). Of the individual motif types, clusters of bar motifs are the most numerous, with left-hand prints the only other motif type well represented. The only more complex forms that occur in any number are plant-like apex designs. Two-thirds of the images (n=65) are based on the bar motif, and are, by definition, linear in form. Bars can occur as singles, pairs, rows or, when several rows are placed above each other, as sets. Hand prints (n=18) and dot types (n=3) are created by pressing or stamping the pigment applied to the hand or finger. The 'snake' and 'composite creature' images both have solid forms with multiple applications of pigment. The lack of any enclosed forms (such as circles, ovoids, etc.) is unusual for such a large repertoire, reinforcing the linear nature of the art here.

Motif type	min	max	median	(n)
Line undulating	-	503	-	1
Composite creature	-	369	-	1
Roo trail	86	147	-	2
Smear	-	92	-	1
Snake	-	71	-	1
Line set	4	48	22	5
Design apex	15	38	17	7
Dot set	-	37	-	1
Bar set	10	28	18	4
Bar row	8	28	16	17
Roo track	13	14	-	2
Bar pair	3	9	4	8
Bar	4	6	6	3
Dot	-	2	-	1
TOTAL	2	503	16	54

Table 3. Size range of motif types measured (excluding hand prints). Measurements in centimetres.

Image sizes

The rock art images range from 2 cm to 503 cm in size (maximum length), with a median of 16 cm. Measurements for the individual motif types can give a better impression of the art, particularly when taking the number of each type into account (Table 3). With the exception of kangaroo trails (of which there are two examples), all motif types greater than 50 cm occur as single examples. A plot of the images below 150 cm in length form a regular bell curve. The larger two (at 369 cm and 503 cm respectively) are clearly exceptional. Their exclusive size reinforces the impression that they are of a greater significance, such as is



Figure 11. Enhanced detail of the 'head' of the composite creature. DStretch_ire10 enhancement.

recorded from the Kimberley (Mowaljarlai and Malnic 1993), Central Australia (Spencer and Gillan 1899), New South Wales (Mathews 1893; GML 2018) and Victoria (Gunn 1983b). The largest of these, however, is the 502 cm long Undulating Line. This line, being only one centimetre thick, is not visually striking, and was overlooked by previous illustrations of the art, suggesting its importance was well-below that of the bolder snake-like images (see below).

Of the smaller and more numerous motif types, Line Sets, Apex Designs and Bar Rows have a more varied size range, but as Line Sets and Bar Rows only require the repetition of further elements, it is the plant-like Apex Designs that stand out for their size differences (in addition to their variety of construction).

The three 'snake-like' images

The focal composition is that of the two large, convoluted 'snake-like' images on art panel A (Fig. 10). These two bold paintings are closely interknitted, forming a visually unified composition. The larger is snake-like but with additional non-snake features added to either end of its body, labelled a 'composite creature'. The smaller snake-like image, in contrast, has attributes of a snake; a curled body arrangement, tapering tail and distinct (but now damaged) head. The damage to the head prohibits the snake's identification to type (python or other).

The larger composite creature has a sinuous, distinctly snake- or river-like, body. The head and tail, however, are clearly not visually related to either a snake or a river. The shape of the bulbous 'head' can be interpreted in a number of ways, such as a human footprint or the head and crest of a black or other

cockatoo (Fig. 11). Similarly, the end of the tail can be read as a hand, a foot, or a splay of tail-feathers. Given these ambiguities, the figure must be seen as an amalgamation of animal features, as is common in representations of a major Creation Being of Aboriginal belief, the variously named Rainbow Snake, common in other Australian rock art regions (Chaloupka 1993: 47; Akerman 2016: 108; Mountford 1968). While not suggesting that this image is a version of the Rainbow Snake, the similarity in some attributes of the Snake Rock creature to the *Myndie* of Victoria (a serpent-like creature that was the avenger of Bunjil; Smyth 1878; Gunn 1983c), it is suggestive that the composite creature is indeed a representation of a local form of major Dreaming Character.

In the painting of the larger 'composite creature', the 'tail' section crosses over a prominent vertical fissure in the rockface, rather than keeping the whole design on the more even rockface to the right of the fissure. This suggests that the crossing of the fissure was significant in the broader context/meaning of the image. Although this meaning is no longer available to us, it demonstrates the incorporation of natural features as a meaningful component of the painted image.

The smaller curled 'snake' image appears to have been painted at the same time as the 'composite creature' (similar colour, form, technique and degree of preservation). On the basis of its design, it is likely that this was painted after the composite creature, as it follows the shape of the area of greatest convolution of the latter. The maximum heights of the two images are the same, but this could simply reflect the convenient reach of the artists. The area in which this composition was painted is also the most readily accessible area of the art panel—the best place to stand to paint a complex design.

In contrast to both of the above outstanding images, is the totally unprepossessing third, five-metre long, 'snake-like' image: the undulating line (Fig. 12). In comparison with the other two snake-like images, this finger-width line has no distinguishing animal features or other additional graphic elements and is visually anomalous to all other images at the site. The placement of the line is, however, closely aligned with the natural features of the rockface, suggesting a meaningful association. While the line may represent a snake, such associations also recall a travelled path (comparable with a trail of macropod tracks expressing movement over time). For example, at the left-hand end, the trail begins in a natural cup-depression in the rock, and then ascends to the beginning of a slight overhang along which it moves before dropping down, finally rising again and terminating at the base of the overhanging lip. This path could be likened to the path of a snake; first coming out of its hole, crossing country to hunt for game under rocks or vegetation, then finally moving further to rest under a ledge (or in the reverse direction). It could also represent the path of a human or Creation Being. So, although visually

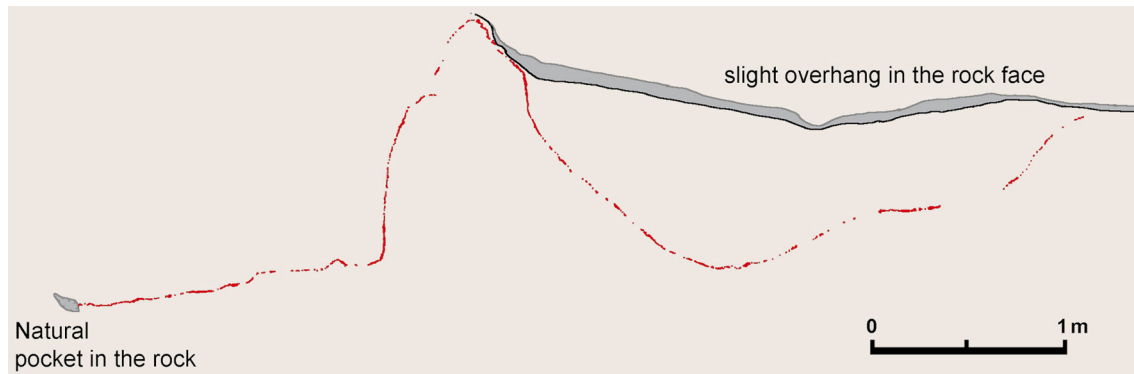


Figure 12. Photo-tracing of the 504 cm undulating-line/snake image.

unimpressive, it is likely that it was, when painted, an important representation at the site.

Bar and dot motifs and their combinations

Bars occur both singly and in combinations (single bars, bar pairs, horizontal rows of bars (some forming unified sets), and, in one case, a vertical stack of bars one above the other. The single dots and dot rows are intermingled with bar rows and appear to operate within a similar intent; a feature found at some sites where bar rows are numerous (e.g. Coutts and Lorblanchet 1982).

Bars generally appear to have been painted with the finger: pressing a pigment-loaded digit-tip onto the rock and then, in the majority of cases, dragging the finger down a short way. In some occurrences, it appears that the finger was reloaded with pigment for each bar. For other bar paintings, the finger was applied more than once before 're-priming', as is seen by successive decreases in the pigment density across the row. The individual bars are mostly between three and six centimetres long. Dots only require the tip of the finger to have pigment.

The placement of bars, mostly in pairs or rows, shows no sign of overall or consistent organisation (Figs 7 and 8). Despite appearing to be of similar age to each other, from the variation in bar width and lengths from set to set, it is likely that the different sets were painted by different individuals. This is in contrast to the occurrence of large numbers of bar motifs elsewhere in south-eastern Australia, where they tend to form unified groups (e.g. Coutts and Lorblanchet 1982).

Bar row is the most numerous form of bar presentation, followed by bar pairs (Table 4). The number of elements (bars) within each bar row ranges from three to 13, with a median of six. The number of elements within the painted bar sets varies from two rows (one on top of the other, of 4 and 5 bars respectively) to three rows (9, 7 and 9 bars respectively). The three rows of bars are drawn in black (10, 15 and 3, respectively). The single dot set has three rows and 36 dots (12 dots per row). The dot set sits at the top of the art panel and forms a notable visual feature of the art panel.

Despite their common occurrence in a wide vari-

MOTIF	No. of images	No. of unit bars
Bar single	5	5
Bar pairs	12	24
Bar rows	24	147
Bar column (vertical)	1	36
Bar sets	4	82
Dot single	2	2
Dot sets	1	36

Table 4. Bar and dot motif type numbers.

ety of environments across Australia, no first-hand interpretation of the meaning of, or reason for, bars arrangements has been recorded.

Hand prints

Twenty-eight hand prints were placed at the southern end of the main art panel (Figs 5 and 13), an area within unsafe reach without a form of ladder. This suggests there may be an element of bravado in their application, either in fun (dare-devil) or as part of some other requirement.

Six of the hand prints are better preserved than the others, and in one case, a brighter print superposes a faint print. This sequence of the two prints indicates that the two suites of hand prints (bright and faint) are separated by a notable period of time. Ten of the 18 hand prints recorded were well-preserved enough to allow measurements of both the middle-finger length and knuckle width (Table 5).

These hand-print sizes can give an idea of the age/sex of the person whose hand is represented. Using data in Tindale's unpublished field notes (see Jones 1987), one of the authors (Gunn) developed an index of middle-finger length pertaining to age/sex. From the initial data, he proposed different keys for hand stencils and hand prints (Gunn 2006); the results for Snake Rock hand prints are given in Tables 6 and 7.

These results suggest that while four are confidently those of adult males, five may be of either adolescents, adult females or adult males. The single infant/child print is anomalous, for although the print

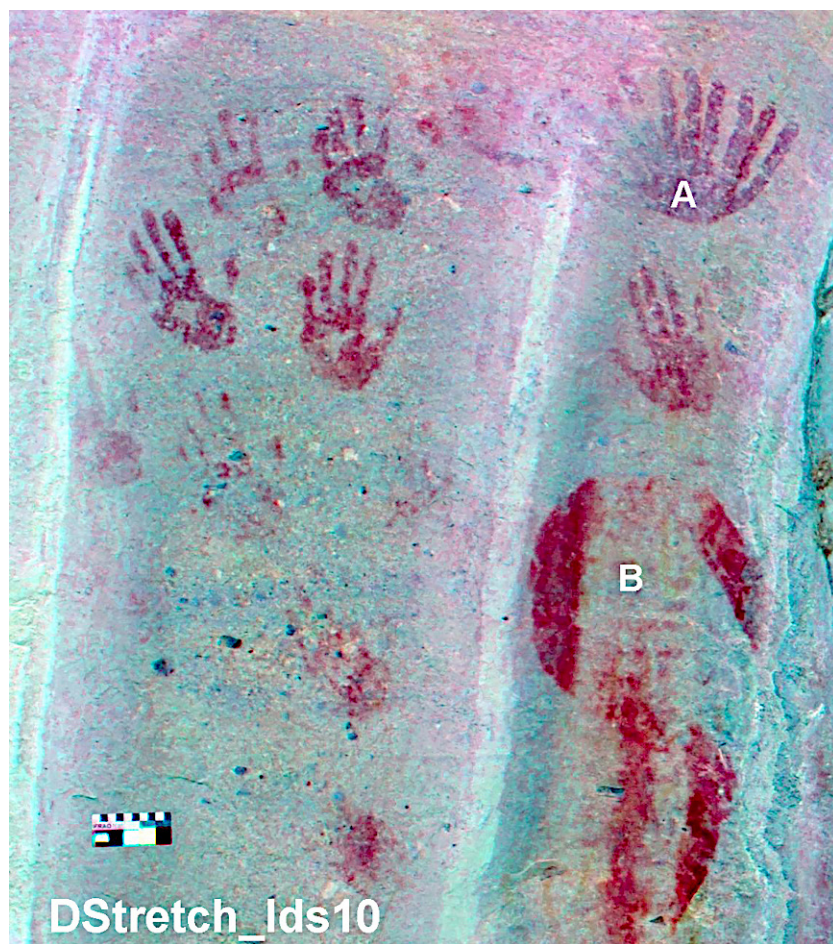


Figure 13. Enhanced image of the area of hand prints at upper, far left of the main art panel. Also showing one of the plant forms (A) and a vertical bar column (B).

of the fingers appears distinct, its knuckle width of 7.0 cm does not correspond to that of a child, but rather another adolescent/adult female/adult male. The measurements indicate that three different classes of person were responsible for the hand printing episodes: (infant/child?); adolescents or adults; and adult males. Hence, at least two different individuals.

Worldwide, most people are right-handed (Coran 1992). This also applies to First Nations people, although the proportion of left-handedness varies in different parts of the country, with 6-9% left-hand-

Age range (years)	+2SD	Mean	-2SD
4-6	5.5	45	35
7-12	65	55	45
13-15	75	65	55
Adult female	75	65	55
Adult male	75	70	65

Table 6. Middle-finger length for hand prints (mean $\pm$ 2 standard deviations). These figures are 0.5 cm below the expected length of the person's middle finger due to the process of printing. Any middle-finger length greater than 8.0 cm is assumed to be an adult male.

Middle-finger class (cm)	Hand prints numbers
5.5	1
6.0	
6.5	
7.0	4
7.5	1
8.0	4
8.5	
9.0	
(n)	

Table 5. Hand print sizes. Measurements taken to the closest half centimetre.

edness documented for Wiradjuri Country (Birdsell 1993). In rock art, the production of hand stencils tends to be done with the left hand, and hand prints with the right (Gunn 2007). The predominance of left-hand prints here (8 left, 3 right), therefore, is notably different from the expected pattern. This contrary occurrence suggests either:

- an inordinate number of left-handed people involved in hand printing;
- that the left-hand held some particular association with the site; or
- that a left-handed individual was responsible for multiple prints. For instance, based on the size and shape, the top four left hands and one right hand

Age range size (cm)	Infant	Child	Adolescent	Adult female	Adult male
5.5	1	1			
6.0					
6.5					
7.0				4	
7.5				1	
8.0					4
8.5					
9.0					

Table 7. Probable age-sex ranges for hand prints from middle-finger lengths. Horizontal rows show all possible age range for that size. Coloured section represents the possible size range for that age class. Outlined blocks indicate numbers for that size group cannot be isolated to one particular column.

could well be the product of a single person, totally skewing any reliable assessment of the theoretical population of the time.

Regional aspects of the rock art

The rock art regions in the south-east of the country exhibit a great variety of styles and motif types (Fig. 14). While individual aspects of its art occur in many of these regions, the repertoire of Snake Rock remains unique. The regional setting of the major motif at Snake Rock will be discussed individually below.

Creation Beings

Creation Beings (also termed Cultural Heroes, Sky Heroes, Ancestor Beings, Dreaming Beings) are the major creation figures of Aboriginal religion in south-eastern Australia. For the region from south-east Queensland to western Victoria (Elkin 1979: 252–254; Berndt and Berndt 1977: 302), the ‘supreme Being’ (a male character) is known as Baiame in eastern NSW, but also by various other names in different regions (Forbes et al. 2020). Baiame inhabits the sky but is represented on earth by the Bora ring (ceremonial ground), and can only be visited by the ‘Men of high degree’ (Elkin 1977).

A powerful associate of Bunjil (the Victorian equivalent to Baiame) was the ‘snake-like’ Myndie (Smyth 1878: 44–46). The Myndie was the ‘avenger’ of Bunjil for social misdeeds. The Myndie was dreaded by Aboriginal people throughout south-eastern Australia, and word of his coming to any place caused the people to run from their camps in fear of some form of retribution. Smyth provides a drawing of the Myndie done by an (unnamed) Aboriginal man (Fig. 15), which Smyth states was consistent with drawings done by other men from other tribes in the south-east.

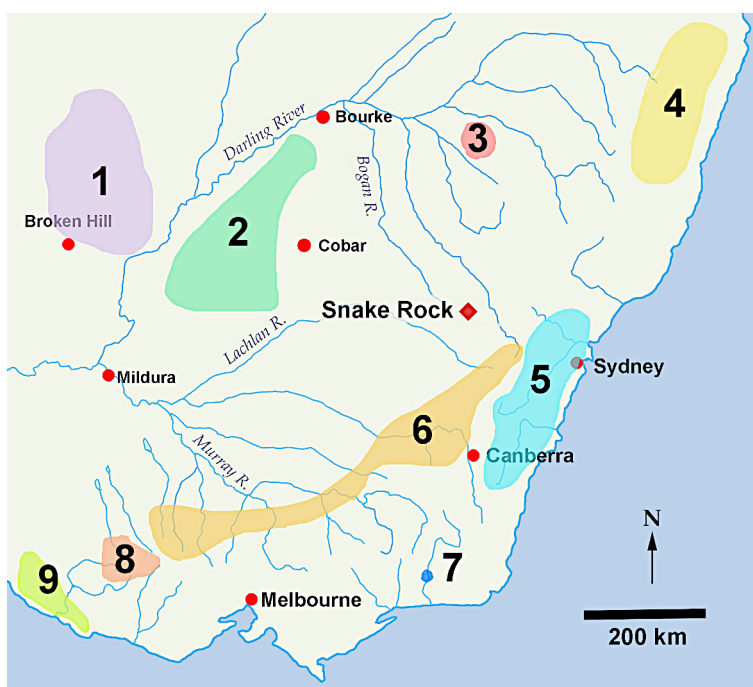


Figure 14. The rock art regions of south-east Australia.

Key to regions:

- 1 Greater Mutawintji: hand stencils and pecked tracks, non-figurative and static figures (McCarthy and Macintosh 1962).
- 2 Greater Cobar: small stick ‘dancing’ figures to the north and hand stencils in the south (McCarthy 1976, 2000; Gunn 1983a).
- 3 Pilliga: pecked tracks and abraded grooves (pers. obs. 2016).
- 4 New England: small painted figures, hand stencils, pecked non-figurative and tracks and abraded grooves (McBryde 1974).
- 5 Hawkesbury-Shoalhaven: drawings, hand stencils and large abraded outline figures (McCarthy 1983; Officer 1991; McDonald 1990, 2008; Dibden 2019).
- 6 South-east Granites: scattered sites, non-figurative paintings with small figures (Flood 1980; Gunn 1983c, 1983d, 1983e, 2002; Officer 1991).
- 7 New Guinea: subterranean finger fluting (Kelly et al. 2025).
- 8 Gariwerd: small figures and non-figurative paintings, hand stencils, drawings (Coutts and Lorblanchet 1982; Gunn 1984; Gunn and Goodes 2022).
- 9 Greater Mt Gambier: subterranean finger fluting and incised non-figurative images (Aslin et al. 1985; Frankel 1986; Bednarik 2020).

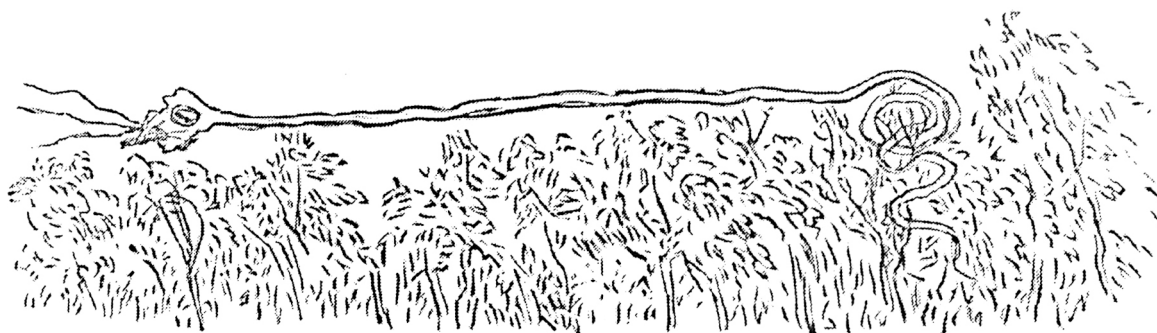


Figure 15. The Myndie as drawn by an (unnamed) Aboriginal “and which tallies with pictures made by men of other tribes”, (from Smyth 1878: 446).



Figure 16. Comparison of the three large rock art images with that of the Myndie. A: The Myndie; B: Snake Rock; C: Wuttagoona; D: Yeddonba. C and D are from 1980s plastic tracings.

The parallel between the Myndie and the Rainbow Serpent character known throughout most of Australia (Radcliffe-Brown 1926; Stanner 1989: 81–86) is very close, and they are likely two forms of the same concept. This association also gives support for the high significance of this, or any, site, with its prominent representations of large snake-like images beyond that of its physical archaeology. [Relevant to here is that to the west of the Darling River, the Creation Being *Kulabiru* created waterholes at Mutawintji, in each of which there subsequently grew a *ngaitchi* or water-snake (McCarthy and Macintosh 1962: 253). The Mutawintji site complex also has a prominent painting of a 10 m long, undulating snake-like image (McCarthy and Macintosh 1962: 266).]

Around the periphery of Wiradjuri lands, from the Great Dividing Range to the Darling, rock art is dominated by small solid-bodied ‘dancing’ people of the simple figurative type (Maynard 1976; McCarthy 1976, 1979; Flood 1980; Gunn 1981, 2002). Three other large, outstanding images of the dramatic type, such

as appear at Snake Rock, also occur widely distributed across the region, at Wuttagoona, Bigga and Yeddonba (Fig. 16). The respective images are:

- an undulating, 4 m long, linear design with incorporated snakes at the large site complex at Wuttagoona waterhole (McCarthy 1976: 132);
- a 4.5 m undulating snake-like design in an isolated boulder site at Bigga, superposed over a repertoire of small ‘dancing’ figures (Flood 1980; Officer 1991); and
- a 2.5 m long stylised snake-like design with attendant snake-anthropomorph at a large, isolated site at Yeddonba (Gunn 1983c). Both of the latter sites are within the South-east Granites region.

While none of these paintings is the same as the Myndie recorded by Smyth, and all are unique to each other, all have some attributes in common with the Myndie drawing (Fig. 16). The differences in the images at the three sites are not seen as significant, as each doubtless emphasises some particular local aspects of the myth (cf. Stanner 1989: 84–86).

Bar and dot motifs

Bar motifs in rock art, either as single units or compound arrays, are common throughout Australia and mostly only form a minor component of the regional repertoire.

In New South Wales rock art, extensive arrays of painted bars appear to be limited to Snake Rock and a single site (Iona) in the Greater Cobar region (McCarthy 1976: Appendix Fig. 65), although in the New

England region (also in New South Wales) rows of bars occur as short, abraded grooves (McBryde 1974).

In the Greater Gariwerd region of western Victoria, bar arrays are widespread and common throughout the sequence from the earliest to the latest art. While most bars occur as short rows, at Billimina the entire rear wall of the shelter is decorated with over a thousand bars, mostly arranged in horizontal rows across the wall, one above the other (Couatts and Lorblanchet 1982). At one site, bar arrays occur along with hand prints.

In the Southern Granites region, bar arrays are uncommon, but at one site (Mudgegonga 2), not far from Yeddonba mentioned above, a large array of bar rows forms a sinuous column down the left half of the art panel (Gunn 1987a, 2002).

Hand prints

While hand prints are a feature at the Snake Rock site, they occur only rarely in the surrounding rock art regions, making this an idiosyncratic feature of the

site. In the Greater Cobar region to the west, they are few in number (McCarthy 1976; Gunn 1983a). Hand prints also appear to be a negligible component of the Hawkesbury-Shoalhaven repertoire, for, while McCarthy mentioned the presence of 'imprints' (McCarthy 1988), they were not reported by McDonald (1990, 2008) in her more detailed analysis of the repertoire. Hand prints (and stencils) are absent at Bigga (Officer 1991) and the Southern Granites (Flood 1980; Gunn 2002) and are only a very minor numerical component of the rock art in Gariwerd (Gunn 1987b). This limited display of hand prints throughout south-eastern Australia suggests they played a different and more restricted role than that of hand stencils (which is the general expression of the hand motif) and, hence, hand prints may have encoded a particular and different message to the viewer of the time.

The lack of hand stencils at Snake Rock is a further anomaly to the broader regional art pattern, where stencils form the overwhelming hand signature. Hand stencils are a notable component of the Hawkesbury-Shoalhaven region, and also in the south-west of Greater Cobar (i.e. to the east and west), but they form only a minor component in the rock art in the Southern Granite and Greater Gariwerd region (Flood 1980; Gunn 1984).

Arrays of bar motifs, snake-like images and hand prints tend to occur as singular or limited sites within a region. Each of these motif types suggests that the sites in which they occur held a particular significance, and the presence of these types changing from bar/hand prints to the snake-like images, suggests that the cultural importance of the site has continued over time and through changes in the site's cultural milieu.

Conclusion

Rock art is uncommon in the expansive Wiradjuri country, and what occurs at Snake Rock contains elements that occur in exceptional circumstances elsewhere in south-eastern Australia—the large snake-like images, and the earlier association of bar arrays and hand prints. In line with their expression elsewhere, these motifs suggest the site was of particularly high cultural significance.

In its prominent placement, the rock art at Snake Rock was readily visible to people or groups coming to the site and was, therefore, likely to illustrate and reinforce important cultural mores or lore. The size and dramatic presentation of the large snake/composite creature composition, along with oral records of historic gatherings here, give the site a significance well-above its archaeological physicality.

The rock art at Snake Rock was produced over a considerable time, with at least two periods of activity. At present, it is not possible to speculate on any timeframe for these periods; however, with archaeological study of the site's deposits, a broad timeframe may be achievable. The site remains unique; however, its closest artistic relationship is to the other sites of the

Granites rock art area to the south.

Visiting Snake Rock

Snake Rock is a closed reserve, but it can be visited in the company of representatives of the Peak Hill Aboriginal Advisory Committee or the local National Parks and Wildlife Service (NPWS).

<https://www.nationalparks.nsw.gov.au/visit-a-park/parks/snake-rock-aboriginal-area>

Contact details: NPWS Dubbo Office 02 6841 7100

Email: npts.centralwest@environment.nsw.gov.au

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