

THE ROCK ART AREAS OF VICTORIA:

AN INITIAL COMPARISON

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In 1981 I undertook an assessment of all of the known rock art sites in Victoria as a prelude to a program of detailed site recording.¹ In order that individual sites could be more adequately assessed it was necessary to establish a regional background of the range of styles present. The preliminary results of that analysis are presented here, with some discussion of the value of the methods used and its consequences for the recording program.

The total number of sites recorded during the survey was only sixty-seven; it is expected that even after detailed site surveys, this total will not exceed one hundred sites.² Only one of the recorded sites, Bunjil's Cave (Plate 1), has any ethnographic documentation³ and so the majority remain as archaeological artefacts.

Over 80 per cent of these sites were recorded in the Grampians, a series of tightly defined sandstone ridges in the mid-west of the state (Figure 1). Of these, half occur in the northern Victoria Range within ten kilometres of the well known Glenisla I shelter⁴ (Plate 3). Of the remaining thirteen non-Grampians sites (nineteen per cent of the total), seven occur as a loose aggregate in the north-east of the State, another two occur adjacent to each other in Central Victoria while the remaining four are isolated sites scattered throughout the State. With the exception of the open engraved site on Sutherland Creek,⁵ all occur within the peripheral hills of the Great Dividing Range.

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¹ Gunn 1981. This paper is a revised version of one that I gave to the South East Australia Study Group in December 1981. The survey was undertaken for the Victoria Archaeological Survey with the assistance of a grant from the Australian Heritage Commission. I would also like to thank Isabel McBryde for her encouragement in the preparation of this paper, Kym Thompson and Neils Becker for assistance with the statistics, and Peter Coutts, Andree Rosenfeld and Julie Gunn for comments on original manuscripts.

² The total in June 1983 stood at 80 sites, an increase of nearly 20 per cent on the number used here.

³ see Howitt 1904: 491, and Gunn 1983b.

⁴ see Mathews 1897, and Coutts and Lorblanchet 1982.

⁵ Boulger 1978.

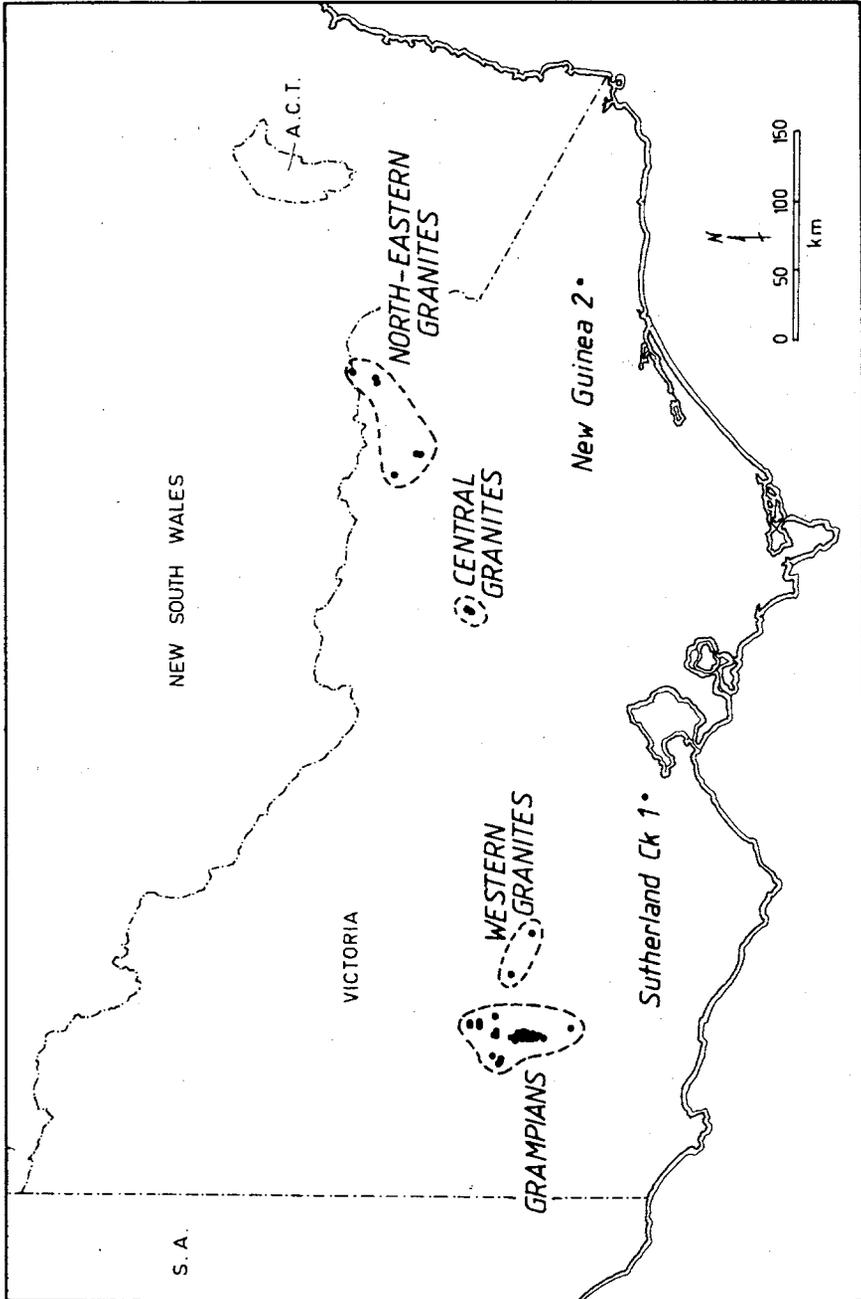


Figure 1 — Location of the rock art areas within Victoria.

ROCK ART AREAS OF VICTORIA

Geologically, the sites can be grouped into six discrete clusters consisting of four art areas (see Figure 1):

Grampians Sandstone (GR)	—	54 sites with 4296 motifs
Western Granites (WG)	—	2 sites with 29 motifs
Central Granites (CG)	—	2 sites with 148 motifs
North-eastern Granites (NEG)	—	7 sites with 362 motifs

and two single sites:

Sutherland Creek 1 (SC1)	with 3 motifs, and
New Guinea 2 (NG2)	with 20+ motifs.

The rock art of the Grampians consists mainly of small (<10 centimetres), red painted, linear motifs, most of which are either basic abstract elements (bars, lines, circles) or stylised variations on the stick figure motif (see Plates 2, 3 and 4). At the other end of the State the art of the North-eastern Granites area, while sharing many attributes in common with the Grampians, (mainly red linear paintings with a high proportion of basic abstract elements), appears to have a higher proportion of human figure and animal motifs as well as a higher average motif size.

In an attempt to define the significance of these apparent differences, the areas were compared using simple quantitative methods. Eight aspects of the art were selected to form the basis of the comparison:⁶

site form	—	motif sizes
motif numbers	—	pigment colours
motif types	—	technique
motif forms	—	probable chronology

Because of time constraints, the individual attributes within each aspect were limited to their basic types; hence all anthropomorphic figures were included within the single attribute group of human figure motifs, and all pigment colours from brown to orange were included within the one colour attribute group, red. Rather than selecting specific types to highlight particular regional differences here, basic types were used so that the comparison could be readily extended to include other art areas of Australia at some later date.

The low total number of sites (67) and motifs (4858) recorded, presented a major problem for the analysis, especially when it is realised that 40 per cent of all motifs studied occur within one rock shelter (Glenisla 1) and that of the rest many could not be classified according to many of the categories selected because of their very poor or fragmented condition (note the varying aspect totals within the tables). Further, (again in contrast to the Glenisla site) the particularly low number of motifs from the Sutherland Creek sites, New Guinea 2 and the Western Granites sites means that their percentage figures cannot be taken as statistically significant. The location of even a single further motif could appreciably alter their respective totals. Their inclusion here must therefore be seen essentially as indicating only either the presence or absence of any particular attribute.

It has been found that rock art sites in Victoria generally tend to occur in either local isolation or distinct geographic clusters centred on one particularly rich decorated

⁶ The attributes were defined from the work of Maynard 1976, Clegg 1978 and Gunn 1983a.

shelter.⁷ However, as there is often more variation in particular aspects between individual shelters within these clusters than there is between the overall tallies of two adjacent clusters,⁸ a comparison of the latter should provide a more reliable evaluation of the homogeneity of the State's art, than would be achieved by simply comparing the contents of each of the sites individually. The analysis used the Robinson-Brainerd 'measure of agreement' method⁹ to produce a numerical value for the degree of similarity between each art area according to the relative frequencies of each of the various attributes of the aspects examined.¹⁰ The comparative frequencies for the areas are listed in Tables 1-7 and the Robinson-Brainerd similarity matrices in Tables 8-13. A score of 200 implies total similarity, while one of zero implies total dissimilarity. Areas were considered similar when their similarity coefficients exceeded the arbitrary limit of 150, or 75 per cent (Table 14). To give an indication of the real differences between the areas, the numerical frequencies of motif types in each area are given in Table 15. The deficiencies in this method of analysis become apparent when it is realised that the 'expected values' in many of the cells fall well below the acceptable limit of five, implying that any results from a χ^2 test of significant difference would be of little value.

Table 1: Percentage frequencies of site forms

	<i>Cave</i>	<i>Rock shelter</i>	<i>Open</i>	<i>(n)</i>
GR	2%	98%	.	(54)
WG	.	100%	.	(2)
CG	.	100%	.	(2)
NEG	.	100%	.	(7)
SCI	.	.	100%	(1)
NG2	100%	.	.	(1)

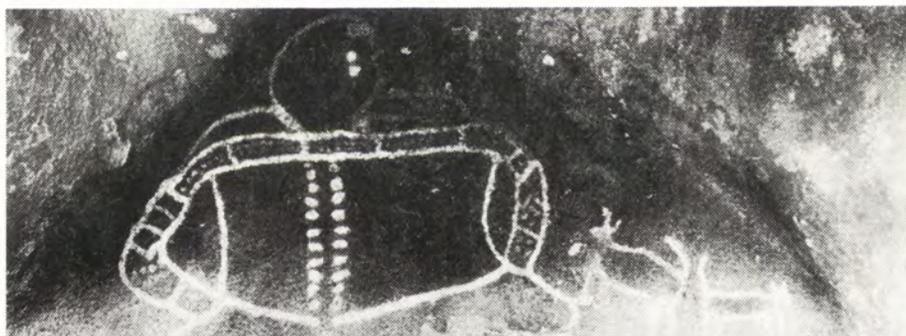


Plate 1 - Red and white painting of Bunjil from the Bunjil's Cave site in the western Granites area (WA). This is considered a particularly important rock art site in Victoria as it is the only one for which we have any ethnographic interpretation. The figure of Bunjil is 153 cm wide.

Photograph: R.K. Frank.

⁷ e.g. Gunn 1983c.

⁸ Maynard 1976: 120-122 and 153ff, and Clegg 1978: 11.

⁹ see Frankel 1975.

¹⁰ cf. the variance analysis method used by Maynard 1976: 155.

ROCK ART AREAS OF VICTORIA

Table 2: Percentage frequencies of motif types

	<i>Abstract elements</i>	<i>Abstract designs</i>	<i>Animal tracks</i>	<i>Animals</i>	<i>Human Figures</i>	<i>Other</i>	<i>(n)</i>
GR	75%	4%	6%	0.2%	12%	4%	(3739)
WG	.	73%	.	14%	14%	.	(22)
CG	23%	3%	6%	1%	66%	1%	(87)
NEG	66%	6%	4%	1%	21%	1%	(267)
SCI	33%	67%	.	.	.	.	(3)
NG2	.	100%	.	.	.	.	(20+)

Table 3: Percentage frequencies of motif forms

	<i>Linear</i>	<i>Solid + Linear</i>	<i>Solid</i>	<i>Other</i>	<i>(n)</i>
GR	90%	2%	3%	5%	(4083)
WG	69%	27%	4%	.	(26)
CG	82%	11%	5%	2%	(126)
NEG	84%	7%	5%	4%	(342)
SCI	100%	.	.	.	(3)
NG2	100%	.	.	.	(20+)

Table 4: Percentage frequencies of motif size (cm)

	<i>1-10</i>	<i>11-20</i>	<i>21-30</i>	<i>31-40</i>	<i>31-50</i>	<i>51-60</i>	<i>60+</i>	<i>(n)</i>
GR†	52%	26%	14%	4%	2%	1%	1%	(1784)
WG	.	5%	14%	23%	9%	.	50%	(22)
CG	17%	56%	16%	7%	3%	.	1%	(75)
NEG	69%	15%	6%	3%	1%	1%	5%	(268)
SCI	33%	67%	.	.	.	.	.	(3)
NG2	-	-	x	x	x	x	x	(20+)

† n.b. 1949 motifs from Glenisla 1 shelter not included

ABORIGINAL HISTORY 1984 8:2

Table 5: Percentage frequencies of colours

	<i>Red</i>	<i>White</i>	<i>Yellow</i>	<i>Black</i>	<i>Other</i>	<i>(n)</i>
GR	94%	5%	1%	1%	0.3%	(4296)
WG	90%	.	.	.	10%	(29)
CG	100%	.	.	.	.	(148)
NEG	75%	20%	.	4%	.	(362)
SCI	.	.	.	.	100%	(3)
NG2	.	.	.	.	100%	(20+)

Table 6: Percentage frequencies of art techniques

	<i>Drawing</i>	<i>Painting</i>	<i>Printing</i>	<i>Stencil</i>	<i>Other</i>	<i>(n)</i>
GR	5%	92%	0.5%	3%	0.3%	(4296)
WG	3%	97%	.	.	.	(29)
CG	.	99%	1%	.	.	(148)
NEG	4%	96%	1%	.	.	(362)
SCI	.	.	.	.	100%	(3)
NG2	.	.	.	.	100%	(20+)

Table 7: General art chronologies

	<i>Pre 6000 BP</i>	<i>6000-3000 BP</i>	<i>Post 3000 BP</i>
GR	.	.	x
WG	.	.	x
CG	.	.	x
NEG	.	.	x
SCI	.	x	.
NG2	x	.	.

Table 8: Site forms – matrix of Robinson-Brainerd similarity coefficients

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	.	196	196	196	0	4
WG	196	.	200	200	0	0
CG	196	200	.	200	0	0
NEG	196	200	200	.	0	0
SCI	0	0	0	0	.	0
NG2	4	0	0	0	0	.

ROCK ART AREAS OF VICTORIA

Table 9: Motif types – matrix of Robinson-Brainerd similarity coefficients

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	.	30	89	174	75	7
WG	30	.	35	42	123	145
CG	89	35	.	107	52	6
NEG	174	42	107	.	79	13
SCI	75	132	52	79	.	134
NG2	7	145	6	13	134	.

Table 10: Motif forms – matrix of Robinson-Brainerd similarity coefficients

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	.	148	178	186	170	170
WG	148	.	168	160	138	138
CG	178	168	.	192	164	164
NEG	186	160	192	.	168	168
SCI	170	138	164	168	.	200
NG2	170	138	164	168	200	.

Table 11: Motif sizes – matrix of Robinson-Brainerd similarity coefficients

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	.	51	128	158	118	<120
WG	51	.	59	39	9	<195
CG	128	59	.	86	146	<127
NEG	158	39	86	.	96	<116
SCI	118	9	146	96	.	0
NG2	<120	<195	<127	<116	0	.

Table 12: Pigment colours – matrix of Robinson-Brainerd similarity coefficient

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	.	179	186	162	0	0
WG	179	.	180	151	20	20
CG	186	180	.	151	0	0
NEG	162	151	151	.	0	0
SCI	0	20	0	0	.	200
NG2	0	20	0	0	200	.



Plate 2 – Red painted 'lizard men', stick figures, emu track and line motifs superimposed at the Cultivation Creek 5 shelter in the heart of the Victoria Range, Grampians. Scale 5 cm.
Photograph: R.G. Gunn.

ROCK ART AREAS OF VICTORIA

Table 13: Art techniques – matrix of Robinson-Brainerd similarity coefficients

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
<i>GR</i>	.	190	184	191	0	0
<i>WG</i>	190	.	194	197	0	0
<i>CG</i>	184	184	.	193	0	0
<i>NEG</i>	191	197	193	.	0	0
<i>SCI</i>	0	0	0	0	.	200
<i>NG2</i>	0	0	0	0	200	.

Table 14: Art aspect groupings across the areas

	<i>site form</i>	<i>motif numbers</i>	<i>motif types</i>	<i>motif forms</i>	<i>motif sizes</i>	<i>pigment colours</i>	<i>art techniques</i>	<i>probable chronology</i>
<i>GR</i>	a	a	a	a	a	a	a	a
<i>WG</i>	a	b	b	a	b	a	a	a
<i>CG</i>	a	c	c	a	c	a	a	a
<i>NEG</i>	a	c	a	a	a	a	a	a
<i>SCI</i>	b	b	d	b	d	b	b	b
<i>NG2</i>	c	b	e	b	b	b	b	c

Table 15: Numerical frequencies of motif types

	<i>Abstract elements</i>	<i>Abstract designs</i>	<i>Animal tracks</i>	<i>Animals</i>	<i>Human Figures</i>	<i>Other</i>	<i>Total</i>
<i>GR</i>	2753	166	221	6	447	146	3739
<i>WG</i>	.	15	.	3	3	.	22
<i>CG</i>	20	3	4	2	57	1	87
<i>NEG</i>	176	16	10	4	57	4	267
<i>SCI</i>	1	2	.	.	.	.	3
<i>NG2</i>	.	20+	.	.	.	.	20+



Plate 3 – Detail of the sets of red painted bar motifs from Glenisla 1 in the Grampians. The bars average 7 cm. in length. Glenisla, with some 1800 bar motifs, is the focus for this type in the Grampians.

Photograph: R.K. Frank.



Plate 4 – Red hand stencils at the Cave of Hands shelter in the Grampians. With eighty stencils this site is the focus for this type of motif in the Grampians. The knuckle size ranges from 7-10 cm.

Photograph: R.K. Frank.

ROCK ART AREAS OF VICTORIA

Despite these problems, it is possible to produce a crude gauge of overall similarity by simply tallying the number of like groupings between each of these areas (Table 16). With a maximum possible value of eight, only scores of six (75 per cent) or more can be considered significant. It can be seen that while none of the areas are alike in all aspects, several appear to be totally dissimilar. In fact, only two significant similarities occur; one exists between the Grampians group (GR) and that of the North Eastern Granites (NEG). The second is between the North Eastern Granites (NEG) group and that of the Central Granites (CG). It is also obvious, however, that the four pictograph (painted) areas, the Grampians (GR), Western Granites (WG), Central Granites (CG), and North Eastern Granites (NEG), while not closely similar, constitute a loose block that contrasts distinctly against the two single petroglyph sites Sutherland Creek (SCI). The latter two, while distinct from the other areas, are also only marginally similar to each other.

Table 16: Overall similarity matrix

	<i>GR</i>	<i>WG</i>	<i>CG</i>	<i>NEG</i>	<i>SCI</i>	<i>NG2</i>
GR	8	5	5	7	0	0
WG		8	5	5	1	2
CG			8	6	0	0
NEG				8	0	0
SCI					8	4
NG2						8

The close relationship between the art of the Grampians (GR) and that of the North-Eastern Granites (NEG) implied by these results is, however, belied by examination of more specific features of the art in these two areas. The most obvious of these is the general coherence of the Grampians artwork, created through the repeated use of a number of distinctive motif types. For example:

- a unique, stylised representation of the human figure motif, the 'lizard-man' (Plate 2). This motif occurs at twenty sites focused on the large Cultivation Creek 5 shelter within the heart of the Victoria Range,
- the use of the hand stencil, a motif that has not been recorded elsewhere in the state. This motif occurs at eleven sites in the central and western areas of the ranges but only occurs in any number at the Cave of Hands shelter where eighty (or 73 per cent) have been recorded (Plate 4), and
- the bar motifs. This simple motif (Plate 3) usually occurs in horizontal sets of a dozen or so but at the Glenisla 1 shelter where its distribution is centred, some 1800 almost completely cover the rear wall of the shelter.¹¹

Because little work has yet been done at this level of motif typology, it is not possible at this stage to incorporate these finer distinctions into the present analysis. It is clear

¹¹ Total taken from Gunn 1981: 115. Coutts and Lorblanchet (1982: 14) in their detailed recording of the Glenisla 1 shelter, give the total as 2575 bar motifs.

however, that such focalised motif types need to be given a degree of attention not possible when using compound area totals. It is also apparent from these results, that the difference between the pictograph (painted) and petroglyph (engraved) areas, mentioned above, is not simply one of technique. Significant differences exist in nearly all of the art aspect categories. Again, however, the low number of both motifs and sites among the petroglyphs, while being a significant aspect in itself, prohibits any greater degree of analysis.

In summary then the rock art of Victoria can be seen to consist of one major concentration, three smaller and distinct areas, and two anomolous sites. It is clear, however, that the present definition of the art of the Grampians, its quantity and formal variety, coupled with its locally cohesive structure, indicates that this area represents one of the significant, albeit small, rock art regions of Australia. Although not comparable with some of the other regions for spectacle, the Grampians can equate with regards to the type and amount of information it contains. The general lack of appreciation of the art of the Grampians to date can be seen to have stemmed from a simple lack of published objective recordings.¹² Now that more adequate recordings exist, the unique quality and further research potential of the area is becoming realised. To a lesser extent the location of further sites in the north-east of the state (North Eastern Granites —NEG) may yet show this area to be similarly amenable to regional pattern studies. The remaining six sites, while unsuitable for broad cultural studies,¹³ can still provide an insight into the local level of artistic endeavour and information on their archaeological setting for comparison with the more concentrated areas.

This broad framework, although still requiring modification, now presents a baseline from which more specific research questions can be posed. From the results of the survey however, it is also clear that the main priorities of Victorian rock art research must now for the time be related to, and guided by, practical management. The recent rise in popularity of rock art amongst tourists, has meant that here, as elsewhere in Australia, such sites are under threat from the very people who come to appreciate them. Therefore, it is imperative that all those sites that are, or will be, opened to the public be recorded in detail. Even the most fastidious management controls cannot remove the threat of the vandal, and no conservation can fully replace a damaged or destroyed site. The undertaking of such a recording program will constitute a major task but not only will it provide a permanent record as a basis for informed management and public education, it will also achieve much of the ground work from which further research may extend.

¹² McCarthy 1979: 78.

¹³ Clegg 1978: 59-60.

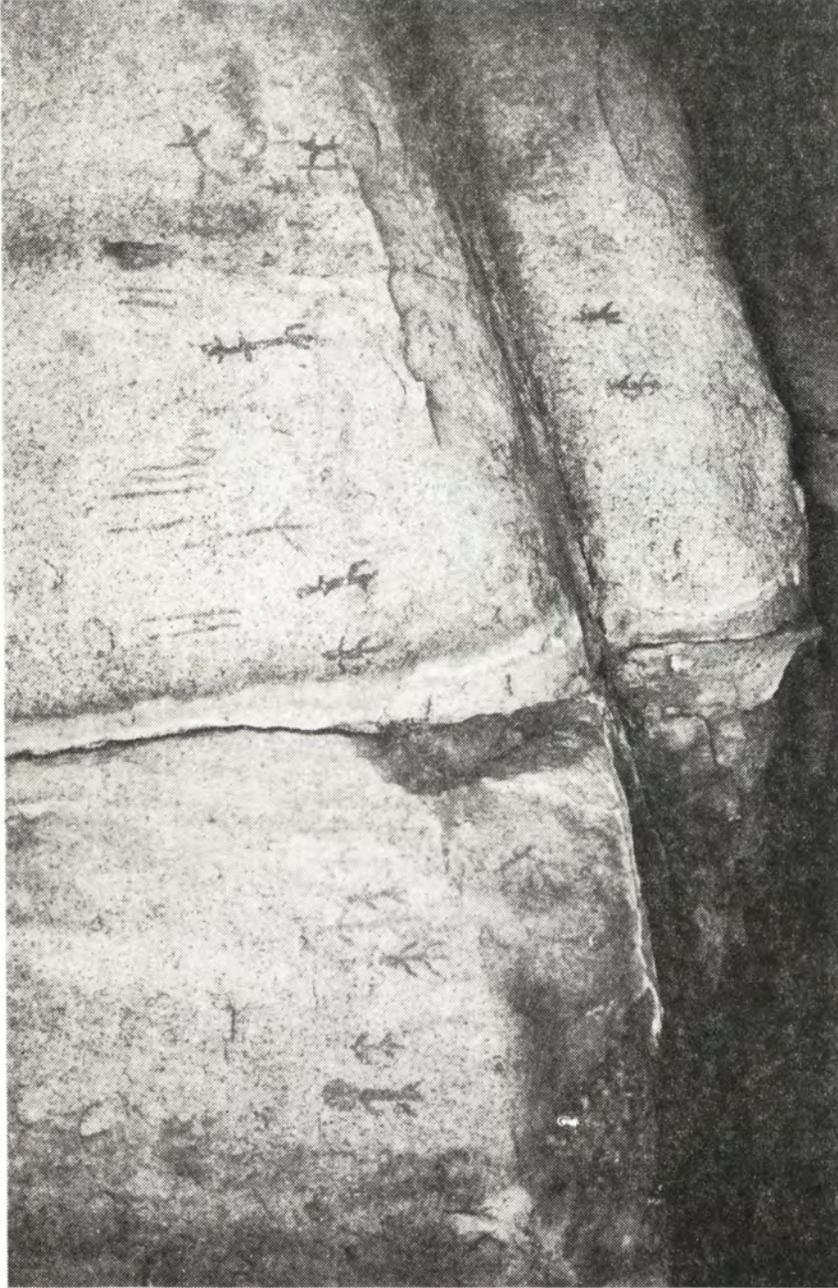


Plate 5 — Red paintings from the Garden Range 1 site in Central Victoria. The tall, dark figure at centre right measures 24 cm. Although four sites are now known from this region only a minute area of it has been surveyed as yet.
Photograph: R.K. Frank.

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