

EXPLORING REGIONALITY IN THE ROCK ART OF THE GROOT WINTERHOEK MOUNTAINS, EASTERN CAPE PROVINCE, SOUTH AFRICA

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Philosophy.

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I declare that this thesis is my own, unaided work. It is being submitted for the Degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



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7th day of FEBRUARY, 2019, at JOHANNESBURG

ABSTRACT

This study examines rock art regionality in southern Africa. The cultural-historical approaches that linked regional style to ethnicity in the first half of the twentieth century have seldom been explicitly rejected and are today still tacitly maintained in discussions of rock art difference. This thesis offers alternative, concrete ideas on ways to approach regional difference in southern African rock art, which have implications for studies of rock art worldwide. I suggest that regional studies based merely on one or two phenomena are bound to fail. Rock art variation across the subcontinent derives from a complex set of interrelated factors that give different regions their particular ‘look’. I use the concept of a *chaîne opératoire*, or chain of operations, to break down rock-art making into steps so that each step in the chain can be examined individually. Each step involves a community of practice or learning group, and multiple or even overlapping communities of practice probably influenced the making of a rock art site. Regional variation was thus a product of constraints in praxis, rather than ethnic affiliation.

The rock art of the Groot Winterhoek Mountains in the Eastern Cape Province, South Africa, provides a case study. This previously unstudied area lies at the far eastern edge of an already defined western and southern Cape region, and is almost equidistant from the well-studied Maloti-Drakensberg and Cederberg rock art, which are commonly recognized as regionally distinctive. Although the Groot Winterhoek area has more affiliations with some of the Cederberg art, there are also connections to the Maloti-Drakensberg. I argue that art of the Groot Winterhoek Mountains has a distinctive character that can be recognised, but that there is also evidence of a wider information exchange network, which leads to a blurring of regionality. By looking at rock art through the lens of communities of practice, we can identify the ways in which variation was constructed.

For my children: Aedhyn, Indhya and Meelah Sherman.

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II. Laue, G.B. 2016. Towards concepts of territoriality in southern African pre-colonial rock art: new insights from the Eastern Cape, South Africa. In: E. Honoré, & M. Gutierrez, eds, <i>L'art rupestre d'Afrique, Actualité de la recherche, Actes du colloque International Paris, 15 au 17</i> . Nanterre: Editions l'Harmattan, pp. 263–74.....	120
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CHAPTER ONE:

INTRODUCTION

1.1 DISCOVERING THE GROOT WINTERHOEK ROCK ART

In November 2012, with a copy of an old hand-drawn map, my team and I hiked into the Groendal Wilderness Reserve, Groot Winterhoek Mountains, Eastern Cape, to find Mcall's Cave (Fig. 1.1). On our first day, we were glad to be walking on a path as our route wound ambitiously through steep terrain. Just before sunset, we reached our overnight stop, a painted shelter which was well known to us. It was here that our real journey began. Here we would leave behind the disturbing signs of graffiti and other traces of destructive hikers. From this point on there were no paths to guide us, only the old map on which various sites had been marked and briefly described. We were looking for a shelter called Mcall's Cave, a shelter with the following description "PRINCIPLE PAINTINGS: procession of figures, STATE: good". The next morning, we started early and followed the sinuous curves of the river. Slowly we made our way upstream keeping our eyes open for evidence of shelters not marked on the map, taking turns to scramble up slopes to check promising places. Making sure we were on track, carefully counting the valleys while looking at the map, we eventually found ourselves at the bottom of a beautiful valley that had opened up with a spectacular canopy of yellowwood trees and a little way off, a waterfall cascading down high cliffs. We thought we had reached our destination, but unfortunately, the rocky outcrop we believed might hold the shelter turned out to be nothing but sheer rock. With night approaching we dropped our hiking packs and spread out towards the lines of cliffs and rock outcrops further up the slope. Finally, I heard a shout from one of my team. He had stumbled into a small, unassuming shelter and in the low dusky light had almost turned around disappointed when he saw one figure, then another and another. We all gathered in the shelter, and as our eyes adjusted to the gloomy light, we were astounded to see a long procession of figures, more extensive than any we had seen in the area before. We looked closer; we could make out the exquisite detail, and note the compositions, and relationships between painted images. With night falling we retrieved our packs, and with head-torches continued to examine the shelter. We noted that in addition to

the procession there were paintings of crawling figures on the ceiling and more paintings beneath the overhang of the main panel. Mcall's Cave contains over 220 individual images and is one of the richest sites in the Groot Winterhoek Mountains (Fig. 1.2; Laue 2017 **III**).



Figure 1.1: The Groendal Nature reserve in the Groot Winterhoek Mountains, Eastern Cape Province, South Africa (After Google Earth Pro).

The excitement of finding and seeing a new rock art site is exhilarating. There is nothing quite like walking into a rock art shelter for the first time and discovering the images it holds. After an initial overview of the site, I studied the images and their composition and compared them to what I have seen before, picking up similarities and differences. My interest has always been in the differences rather than similarities; in the unusual motifs rather than those found across the whole subcontinent. This interest stems from the time I first studied rock art and has led me to look at areas of rock art that are previously unexplored.



Figure 1.2: Panel of human and animal figures in McAll's Cave, Groendal Nature Reserve, Eastern Cape Province, South Africa (Photo: G. Laue).

My Honours project (Laue 1999) examined the rock art of the Uniondale District where I identified 24 previously unrecorded sites. I undertook quantitative analysis to show that there was regional variation in the numbers of specific images, the ratios of male to female human figures, the ratio of animal to human figures and the types of animals painted. Working on only this aspect of the art, motif type, I concluded that the art of the Uniondale District bore more similarities to that of the Cederberg than the Drakensberg. My Master's dissertation (Laue 2000) considered another unexplored area, the Waterberg. Here I concentrated on a specific posture which, seems to be limited to the Waterberg, and its relationship to the hartebeest, an animal commonly painted in this area. In neither of these projects did I explore the questions that are important to a study of regional difference in rock art. Why do we see these differences? How can these differences be defined? Moreover, what do regional differences mean?

The defining of rock art regions was of major importance to rock art enthusiasts up until the 1970s (e.g., Burkitt 1928; van Riet Lowe 1956; Wilcox 1963; Malan 1965; Rudner & Rudner 1970) when studies into regionality fell out of favour. Rock art

regions, based on broad poorly defined notions of style, were explained by culture-historic approaches. With the advent of the interpretive approach to rock art studies in the late 1970s (Vinnicombe 1976; Lewis-Williams 1981a), the trend was to look for similarities, and interpret these through studies of ethnography, rather than differences in the art. This work led to the concept of a pan-San cognitive system (McCall 1970: 18; Lewis-Williams 1984: 227) which, in turn, led to the interpretation of rock art in many diverse areas of the subcontinent (e.g. Huffman 1983; Hollmann 2005a; Mguni 2015). This breakthrough led to southern African rock art being one of the best understood in the world. However, it also meant that investigations seldom questioned what makes a region and why we have regional differences. Instead, although the use of the ethnographic model of interpretation of San rock art explained the art of many diverse areas, regional motifs were investigated as to how they fitted the model and differences ascribed to idiosyncratic views of the spirit world.

1.2 AIMS

The thesis has two aims. First, I show how the rock art of the Groot Winterhoek Mountains compares to the rock art of the rest of the subcontinent; specifically, I contrast it with the art of the Maloti-Drakensberg Mountains and that of the Western Cape Province. Second, I use the art of the Groot Winterhoek Mountains as a case study to investigate questions about regionality and identity.

With the concept of ‘communities of practice’ as a theoretical base, I examine the art in the Groot Winterhoek Mountains and regionality. This concept allows me to move beyond the simple cultural correlations that were the basis for much of the earlier regional work. The method I use to investigate these ideas of regionality and inform on different communities of practice is the *chaîne opératoire* approach. Although this method has been used in South Africa to investigate stone tool technology (e.g. Wurz 1999), this is the first time that I am aware of, that it will be used to examine the rock art of the subcontinent.

1.3 RATIONALE

The tendency to investigate southern African rock art as a whole has had the effect of homogenising the art and led to an inclination to gloss over difference while

searching for similarities. In studying regionality, the aim is to highlight these differences and explain them. While rock art researchers have investigated issues of interaction (e.g. Hall & Smith 2000; Eastwood 2003; Eastwood *et al.* 2010), stylistic differences between the art of different cultural groups (e.g. Smith & Ouzman 2004) or later rock art for which we have a historical context (e.g. Mallen 2008; Challis 2012), very little has been done to explain difference between different areas of San art. Instead, there is often a tacit acceptance of earlier work based on cultural-historical modes of thought. It is time for a new, more theoretical, look at regional difference. Rock art studies are often divorced from other aspects of Later Stone Age (LSA) archaeology. LSA archaeological research has attempted to look at regionality (e.g. Mazel 1989), territoriality (Hall 1990; Binneman 1995; Sealy 2006) and stylistic boundaries (Sampson 1988), but, beyond vague investigations of stylistic differences, no one has attempted to approach these issues through investigating rock art. A fuller understanding of rock art regionality can add another strand of evidence to help towards confirming or overturning these arguments. Regional differences in rock art are there, and a more thorough and detailed study can work towards shedding light on how people organised themselves in the past.

1.4 LITERATURE REVIEW

I review two notable bodies of literature for this thesis, those on regionality and San ethnography. First, I look at the early attempts to understand regional difference in southern African rock art and how the focus of research changed with the advent of the interpretative approach to the art in the 1970s. I also investigate some of the problems with the concept of rock art regions. Second, I investigate both the southern and northern San ethnography to understand regions, territories, and movement in San groups. Much of the study of ethnography and its relation to rock art has focused on belief systems, but looking instead at these other facets of the ethnographic record, we can gain new insights into LSA life.

1.4.1 Regionality

The 1970s were a watershed decade in rock art research in southern Africa. Before this, there was minimal work on rock art by professional archaeologists, with the field left to the many amateur researchers. Professional archaeologists, pre-1970, focused on issues of sequence and regional difference. Apart from attempts to

identify what the images were depicting, there seemed to be little interest in the reason for painting or the meaning. The assumption was that the art was painted purely for pleasure; it was art for art's sake (Willcox 1978a: 60; see also Lee & Woodhouse 1970: 13-15; Rudner & Rudner 1970: 210).

There was a brief spurt of quantification in southern African rock art in the late 1960s and early 1970s. Methodological flaws soon led to the abandonment of this method and the employment of an interpretative approach, using San ethnography to understand the symbolic dimensions of the art and its production. The extraordinary productivity of this 'cognitive' approach, which still dominates San rock art research today, meant that issues such as regionality fell by the wayside. However, even with the abandonment of this line of research, many of the conclusions reached can still be seen in the form of tacit assumptions in rock art research today. There has been a recent renewed interest in regional difference in southern African rock art, but instead of solving the problem of regionality, it has just shifted the focus from 'style' to motif and, many of the original problems remain.

Early views on regional difference in southern African rock art

Burkitt (1928; see also Burkitt 1929) was one of the first to divide the rock art of southern Africa into regions, divisions later refined by other researchers such as van Riet Lowe (1949; 1956), Rudner and Rudner (1970), and Willcox (1984). Each researcher defined a slightly different number of regions, but there was broad agreement that difference could be seen and defined. The direction of rock art research at the time is clear; it involved trying to see difference through space (regionality) and differences through time.

Miles Burkitt

Burkitt (1928) was a Cambridge prehistorian who divided the subcontinent into three regions: Zimbabwe¹, a Central Group which includes Lesotho and the eastern and western slopes of the Drakensberg in South Africa, and a Southern Group which is found in the coastal belt below the Central Group also in South Africa. His observations were based on a brief tour, in 1927, of archaeological sites and

¹ Modern place names are used in the text, for example in place of Southern Rhodesia, I use Zimbabwe.

collections facilitated by Goodwin, his student and a lecturer at the University of Cape Town. Burkitt, as well as others interested in regional difference, included the rock engravings in his analysis, but as engravings are beyond the scope of this thesis, I do not discuss them here.

The discussion on the Zimbabwean rock art focuses on Burkitt's description of change through time. The oldest art, he argues, is 'nicely drawn', mainly red and yellow and usually monochrome. He notes the occasional images drawn in outline. The next series of paintings, painted in dark-brownish reds, are 'more developed', but similar to the oldest series and a connection is assumed. The next, the dark claret series' is different in colour and style from what went before. The images, while still naturalistic, are angular and to Burkitt, are 'rather Japanese in appearance'. These paintings are 'well and finely drawn' with a style that is 'vigorous and attractive'. The latest art is made up of several series based on colour: yellow, white and the beginnings of polychromes. This series is 'much less attractive', and the animals are chunkier and more stiffly painted. Burkitt bemoans the fact that he could not visit any sites in what are now the Limpopo and Mpumalanga Provinces of South Africa.

The distinguishing features of the Central Group are the polychrome paintings and the many 'elaborate scenes'. Burkitt also notes the more varied imagery and thinks the art is younger than that found in Zimbabwe. The forequarters and underparts of the animals are often white with the body painted in yellow with the occasional touch of brick red or dark claret and sometimes shaded. The human figures are often elongated and commonly painted in groups. Burkitt remarked on the many scenes of cattle stealing, as well as 'painted stories'. He claims a steady 'degeneration' of the polychromes through time but does not attempt a sequence for this art. He thought the painters to be those who made the stone artefacts of the Smithfield stone tool industry.

The Southern Group art, very different from Zimbabwe and the Central Group, was thought by Burkitt to be associated with the Wilton stone tool industry. The art which extends from Grahamstown in the east to Riversdale in the west is 'far inferior in style and technique' to the art of the other areas studied. Animal figures are 'poorly

drawn', and there are no shaded polychromes. The human figures are often big and angular. The most common colour used is bright red, and the background rock is often smudgy. Burkitt noted the many handprints which he claimed are small, smaller than a European woman's hand. There is a lack of superimposition.

Clarence van Riet Lowe

Van Riet Lowe was the first director of the Bureau of Archaeology in the Department of the Interior. In 1944 the institution, still with van Riet Lowe at the helm, became the Archaeological Survey and was transferred to the Department of Education, Arts and Science (Malan 1962: 41). One of the first significant tasks set by van Riet Lowe for the Bureau of Archaeology was to create a list of rock art sites in South Africa, published in 1941 (van Riet Lowe 1941, updated in 1956). Much of the data on sites was made up from information given by magistrates, administrative officers, museums, universities and schools. Unfortunately, time and staffing restraints did not allow van Riet Lowe to check all reported sites (Willcox 1962: 59), but this work was still a valuable compilation. All sites were plotted onto a map (Fig. 1.3) and five broad regions proposed (van Riet Lowe 1956): North-Eastern Group, South-Eastern Group, Southern Group, Western Group and Central Group.

The North-Eastern Group (Fig. 1.3, area 1) covered what today are the Limpopo and Mpumalanga Provinces of South Africa. Van Riet Lowe saw this art as belonging to a large area of naturalistic art, sometimes painted with 'photographic accuracy' that extends into Zimbabwe. Most of the images are monochromes painted in maroons, reds and yellows and more rarely black and white. Unshaded bichromes and polychromes are also found, often superimposed on the monochrome paintings. There are paintings of trees, fruits and insects, but no examples of more recent imagery such as cattle and sheep.

The South-Eastern Group (Fig. 1.3, area 2) covers Lesotho, the Drakensberg and eastern Free State. This region was seen as containing more paintings than the rest of the subcontinent put together. Van Riet Lowe divided the art into pre- and post-Bantu periods. The pre-Bantu art is mostly monochrome silhouettes similar to those in the North-Eastern Group, but also contains bichromes and often shaded

polychromes. Foreshortening and compositions are noted. Paintings include fishing scenes and ceremonies such as dancing. There are no paintings of plants. In the post-Bantu period, the art contains cattle, sheep, shields and scenes of fighting. There is a 'general restlessness in the art'. These paintings are often superimposed over earlier paintings, and the shading is absent. In the latest art horses and Europeans with guns are depicted.

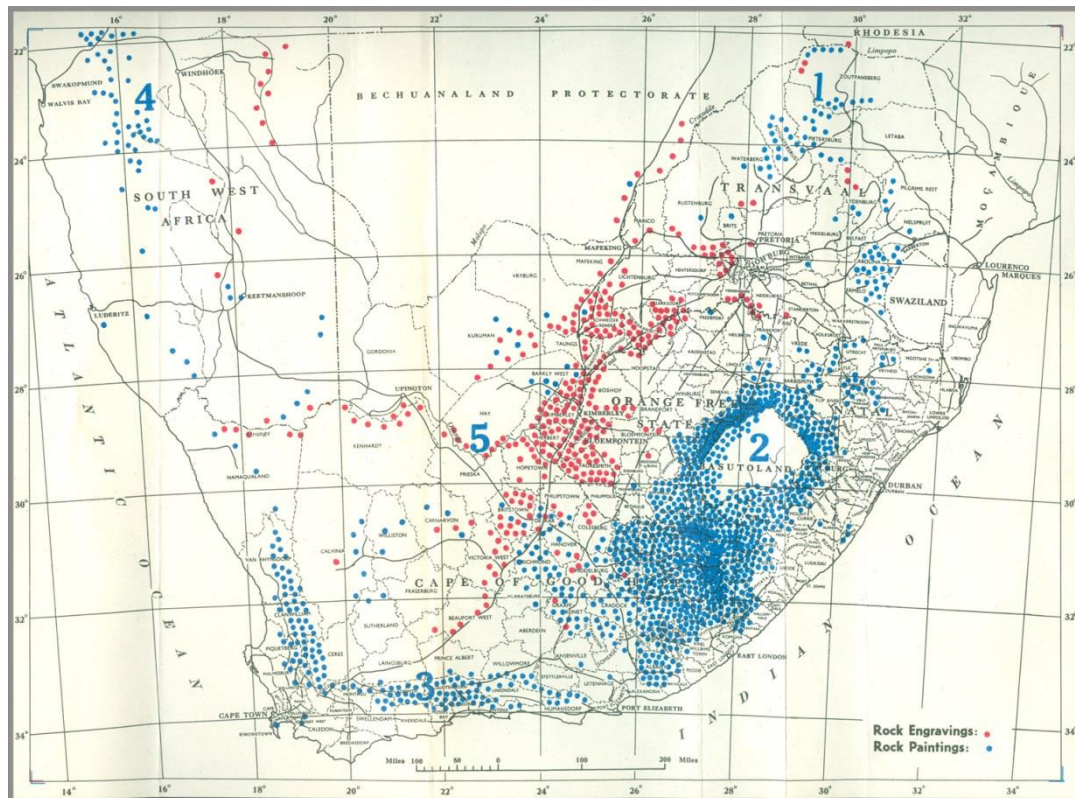


Figure 1.3. A map of southern Africa showing van Riet Lowe's five areas (after van Riet Lowe 1956).

The art from Port Elizabeth in the east, along the coast west towards the Cape peninsula and northwards into Namaqualand falls into the Southern Group (Fig. 1.3, area 3). This art is predominately monochrome and painted in ochreous red or brown. Superpositions are rare and shading does not occur. The art often has an unfinished look to it and action is not well depicted. When bichromes do occur, one colour is red and the other black or white. There are many handprints and finger dots.

The Namibian art makes up the Western Group (Fig. 1.3, area 4). Apart from some elaborate polychrome figures in the Brandberg much of the art is small, monochrome and poorly executed. The 'page-boy' hairstyles may link some of this art to that of Zimbabwe. When human figures are armed, they carry bows. Superpositioning is present.

Van Riet Lowe's Central Group (Fig. 1.3, area 5) covers a few scattered sites from the Karoo to the Kalahari. This art belongs to the 'final decadent' phase of post-Bantu art. It also includes images of modern objects as well as 'stylised signs and symbols'.

Jalmer and Ione Rudner

The Rudners were amateur archaeologists, tutored by Professor John Goodwin of the University of Cape Town (Rudner, J. *et al.* 1973: 25). They published on various aspects of southern African archaeology and in 1981 Ione Rudner completed an MA Degree on the paints and pigments in rock paintings (Rudner, I. 1982). Their 1970 book, *The Hunter and His Art*, included their copies from across southern Africa. They divided the subcontinent into eight painted areas (including Tanzania as a ninth area): 1. Mashonaland, 2. Matabeleland, 3. Brandberg, 4. Erongo, 5. Cederberg, 6. Eastern Cape, 7. Drakensberg and 8. Limpopo Province (Fig. 1.4). They divide the art into three different styles: abstract, naturalistic and stylised. Further subdivisions of the naturalistic style are the Dynamic School, associated with the Smithfield stone tool industry, and the Formal School, associated with the Wilton stone tool industry (Rudner & Rudner 1970: 179).

Although the Rudners differentiate Mashonaland and Matabeleland in Zimbabwe (Fig. 1.4, areas 1 and 2), they discuss the art from these two areas together. They place the fine-line art from this area in the Formal School along with the art of Namibia and the south-western Cape. They recognise six phases of art which they base on Cooke's (1969) analysis. Style 1 is composed of simple animal silhouettes and stylised human figures. In Style 2 the animal figures seem to be less static, and the human figures are in outline only. Style 3 sees animal and human figures painted in outline only. Style 4 sees abundant bichromes and polychromes and attempts at

shading, as well as trees and landscapes and more detailed human figures. The Rudners argue that Bantu-speakers made the finger painted art of Style 5. Style 6 consists of large elephants plastered on with white clay.

The Tsodilo Hills in Botswana, not recognised as a separate region on the map, are mentioned. The older paintings are red, with more recent ones being 'crude' white designs probably made by Bantu-speakers.

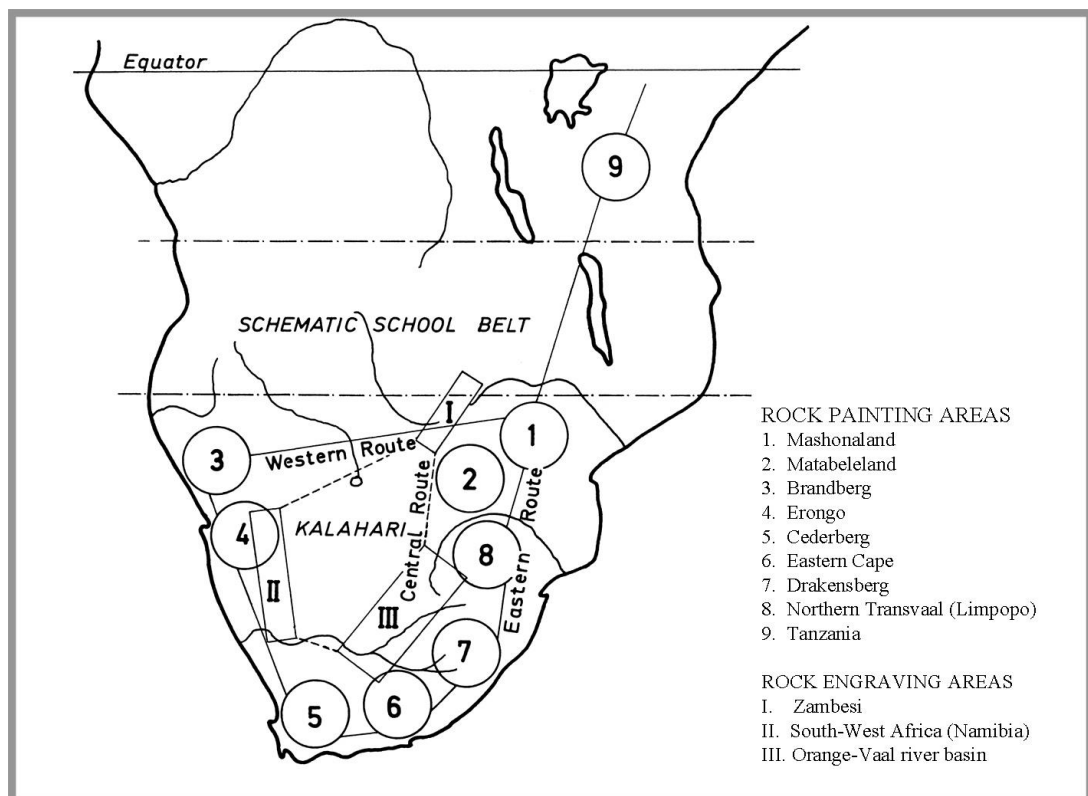


Figure 1.4: Rock painting areas as proposed by the Rudners (after Rudner & Rudner 1970: 266).

The Brandberg (Fig. 1.4, area 3) and the Erongo (Fig. 1.4, area 4) are both in Namibia. Little is said about the Erongo area except that there are no paintings of trees. The art of the Brandberg is stylised and belongs to the Rudners Formal School and associated with the Wilton stone tool industry. Human heads are often a sickle or hook shape. Four main styles are recognised, but these do not imply a chronological sequence. Style 1 is composed of thick finger painted animals. Style 2 is mostly red or maroon monochromes. Style 3 consists of well-drawn polychrome

images. Small humorous pictures, handprints and crude designs in white make up style 4.

What the Rudners have called the Cederberg (Fig. 1.4, area 5) is comparable to Burkitt's Southern Group and van Riet Lowe's region 3. It is made up of a concentration of art in the Cederberg with scattered sites along the southern coast as far as the little Karoo where there is another concentration of art. The art in the east is seen as more advanced and provides a link to the art of the north-eastern Cape. This area is also part of the Formal School and associated with the Wilton stone tool industry. The oldest art is thought to be big hook-headed figures which are followed by 'lively' hook-heads. Figures with fish or swallow-tails are unique to the area. Another unique feature is the painted burial stones found along the coast. There are late crude images depicting Europeans, wagons and cattle.

The art of the Eastern Cape (Fig. 1.4, area 6) and the Drakensberg (Fig. 1.4, area 7) are discussed together. This area is part of the Dynamic School and associated with the Smithfield stone tool industry. The Rudners propose that in the Eastern Cape, the Wilton art meets the fine art of the Smithfield people. The style of this art is 'characterised by action and colour, combined with a certain sense of humour'. Eland are common and sometimes painted using perspective with a three-dimensional look given by shading. Paintings often show incredibly exaggerated movements.

Area 8 (Fig. 1.4) covers the Limpopo Province including the Waterberg and Soutpansberg. The earlier paintings are thought to be similar to those found in the Drakensberg. There are later, simple rough images made in white.

Alex Willcox

Willcox was trained as a quantity surveyor, but his passion lay in studying rock art, on which he published widely. His 1984 publication was the last to deal with regions of southern Africa on a subcontinent wide scale. Willcox (1984) divides southern Africa into six regions (Fig. 1.5). Region 6 covers engravings only and is not dealt with here; the other five regions are: 1. Zimbabwe and Limpopo Province, South Africa, 2.

Namibia, 3. Southern and South-Western Cape, 4. Drakensberg-Maloti Massif and Surrounding Areas, 5. Northern Cape.

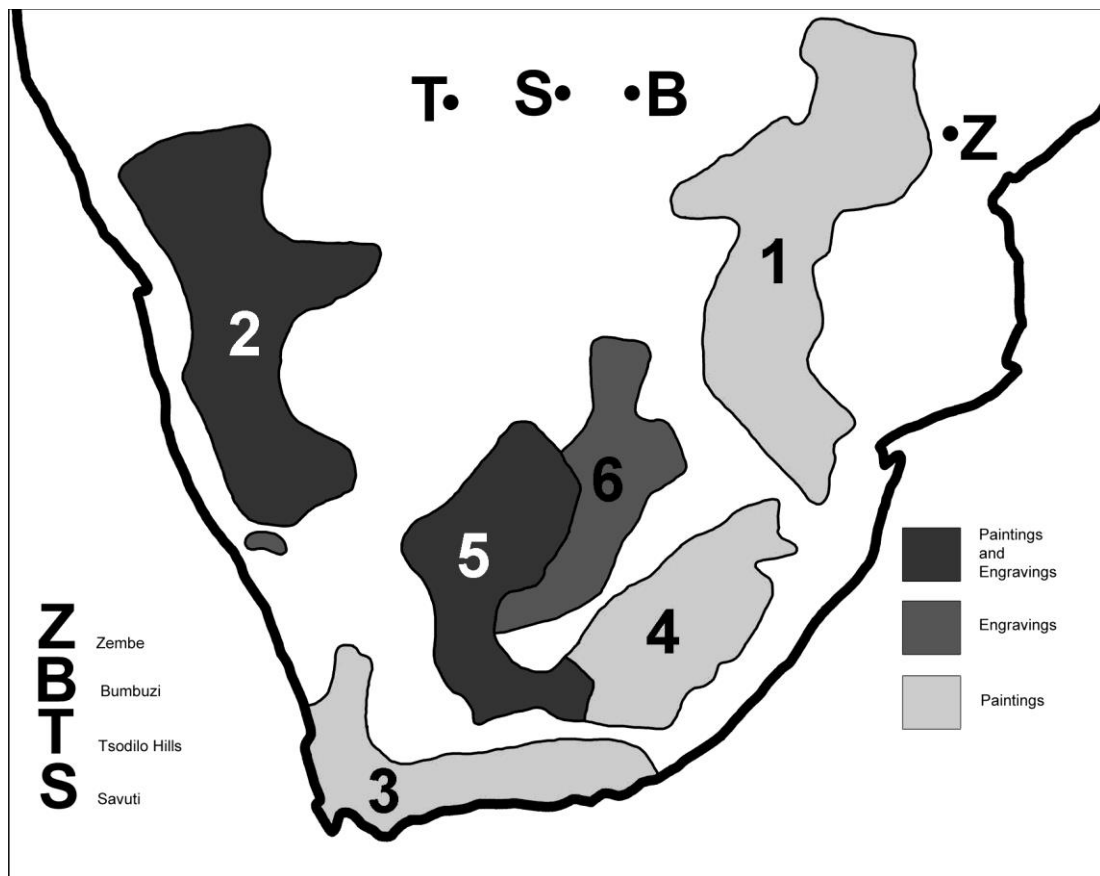


Figure 1.5: Division of the subcontinent into six regions by Willcox (after Willcox 1984: 128).

Willcox makes no distinction between the Zimbabwean art and that of the Limpopo Province in South Africa. Unlike earlier researchers he does not see stylistic change through time, instead “the number of styles and the variety within the styles is so great that few generalisations can be made” (Willcox 1984: 141). In this region, antelope are the most commonly depicted animal. These are mostly monochrome although bichromes and polychromes, some shaded, do exist. Paintings are in the lateral aspect, proportions are accurate and the action well-rendered. Wild animals include large mammals, snakes, birds, fish and crocodiles. The only domestic animals painted are fat-tailed sheep. Human figures are painted naturalistically and ‘exist in a great variety of styles’, often in action or as part of a group or scene. There are depictions of infibulation (a bar across the penis). There are representations of plants, trees and flowers as well as ‘formlings’ (see Mguni 2015) which could

represent the landscape. Handprints occur at some sites. For Willcox, Wilton man was the author of this art.

Willcox also recognises that the paintings of Tsodilo Hills are different but does not assign them to a region. He thinks they have affiliations with both regions 1 and 2. In the paintings there, most animals are shown in a lateral profile and instances of human figures are low (around 1–2%). There is only one woman depicted, and males often have exaggerated penises. Scenes are rare. There are images of ladders and pegged-out skins. There is a large variety of geometrics which were probably made by Bantu-speakers.

Region 2 (Fig. 1.5) covers the art of Namibia. Willcox recognises differences between the Brandberg and Erongo. In the Erongo area, paintings and engravings are interspersed and often occur together. Human figures, often in groups engaged in social activities or walking in file, out-number animals. Humans are painted in a twisted perspective with a side-on view up to the waist with the torso twisted to show the breadth of the shoulders and the head turned to show the face in profile. Some human figures have a ‘page boy’ hairstyle or a headdress or cap. Figures often carry quivers, bows, long sticks or spears and skin bags. Animals most often represent big game. The paintings are mostly monochrome in red or white. There is one good long snake with ears. In the Brandberg human figures are also painted with ‘page boy’ hairstyles, but here they have steatopygia, unlike in the Erongo area. Some figures have musical instruments. Polychrome images of gemsbok, hartebeest, gnu and ostrich occur as do paintings of cattle and sheep. Finger dots and short dashes exist.

The Southern and South-Western Cape (Fig. 1.5, region 3) comprises the mountainous part of the Western Cape and the folded mountains of the southern Cape below the escarpment. This art corresponds closely with the distribution of the Wilton stone tool industry. The paintings from this area are ‘on the whole more primitive’ and ‘lifeless’ and preservation is poor. They are mostly painted in monochrome red or brown. When bichromes occur, one colour is often red. Where superpositioning is seen, the bichromes are on top. Handprints occur most often in

the lower layers and are more common than in other areas. The paintings of animals are less realistic than other areas and are shown in a lateral profile. Antelope other than eland are not often identifiable. Elephant, rhino, ostriches and baboons are seen, but they are not common. Plant forms and small mammals are rare. Sheep are painted in the Cederberg. Human figures, especially in the Western Cape are elongated and wear a tunic type garment painted in another colour. Human figures occur in groups rather than scenes. Hook-heads are common. This area contains representations that seem to be of water-maidens (mermaids). The southern Cape has painted burial stones.

The Drakensberg-Maloti Massif and surrounding areas (Fig. 1.5, region 4) is the most abundant rock art area in the world, according to Willcox. Most of the art seems to be related to the Smithfield stone tool industry with exceptions in the eastern Free State. There is great technical sophistication in the art of this region. The colours used are most commonly red followed by black, white, orange and yellow. Humans predominate and are more likely to occur in groups or scenes. They are mostly monochrome and shown in activities such as dancing, hunting, fighting and herding. Therianthropes (part-human, part-animal figures) are more common in this area. Figures with animal or humanoid bodies with wing-like appendages are limited to this region. More effort seems to have been made in painting animals. Antelope outnumber other animals two to one; eland predominate, hartebeest and rhebok are next in frequency. Baboons are not uncommon, felines rare and small game almost absent. Only animals were painted using the shaded polychrome technique. 'Bogey animals' with gaping jaws, snakes with animal heads and rain animals are seen. The paintings seem narrative in nature and tell a clear story. Horses and lines connecting images are notable features. There are no plant paintings or handprints. There is a sharp difference between this region and region 3.

Region 5 (Fig. 1.5), the Northern Cape, is home to a few paintings, but mostly contains engravings, not discussed here. This region has the only paintings known deep within a cave, Wonderwerk Cave. These paintings are all monochrome and of animals. The paintings in this area belong to the final 'decadent' phase of art making. Wild animals are for the most part the same types as those found in the engravings.

Human figures, which occur in about the same proportion to animals are often crude like the animal figures. The non-representational paintings have much in common with the geometric motifs seen in the engravings.

Discussion

What all these researchers have in common is that they were trying to grapple with questions of difference both in time and space, and they were using style to find the answers. Unfortunately, these authors do not give clear indications of how they derive their regions and styles. For the most part, it is purely impressionistic. Early on Burkitt (1928: 132) recognised one of the principal problems with using ‘style’ to look at difference, “but the observer who has carefully looked at the various paintings in several sites will find it far easier to recognise the different styles than to explain their differences”. In Table 1, I arrange the descriptions of the different observers so that similar areas are discussed in each row. Often there is little correspondence between descriptions of the same regions by different authors and the descriptions given would not allow one to recognise a region without prior knowledge of the region at which one is looking. Terms such as one style being “vigorous and attractive” (Burkitt 1928: 131) or another having a “sense of humour” (Rudner & Rudner 1970: 179) or being “on the whole more primitive” (Willcox 1984: 181) show the ethnocentric bias of the authors and are highly questionable (Silver 1979: 270).

The term ‘style’ is vague and often used without a precise definition. One definition is that “It simply denotes a distinct manner of painting or, in other words, a particular group of paintings with common characteristics that distinguish it from other such groups of paintings” (Brandl 1973: 72), another defines it as the “the underlying patterning of an artistic system” (Muller 1977: 25). Neither provide explicit definitions that are useful to define a regional style (see Chapter Three, 3.2.3, for further discussion on style).

Table 1: Summary of regional differences as outlined by Burkitt (1928), van Riet Lowe (1956), Rudner and Rudner (1970) and Willcox (1984).

M. C. Burkitt (1928)		C. van Riet Lowe (1956)		J. and I. Rudner (1970)		A. Willcox (1984)	
Area	Description	Area	Description	Area	Description	Area	Description
Zimbabwe	❖ Divided in to four art series of different ages based on colour. ➢ Monochromes (red and yellow). ➢ More developed (brownish red) ➢ Attractive art of (dark claret) ➢ Less naturalistic (yellow and red)			Mashonaland and Matabeleland	❖ Formal School. ❖ Associated with the Wilton stone tool culture. ❖ Six phases, the first four of which are fine line. ❖ The bichromes and paintings of trees and landscapes are in phase 4.	Zimbabwe and Limpopo Province	❖ No stylistic changes over time are recognised. ❖ Monochromes predominate but bichromes and polychromes are seen. ❖ As one moves south fewer polychromes occur. ❖ Animal proportions are accurate. ❖ Humans are less accurately portrayed and often painted in groups or scenes. ❖ Paintings of plants as well as formlings occur. ❖ Handprints are found at a few sites. ❖ The art was made by Wilton Man.
		North-Eastern Group	❖ Naturalistic art ❖ Mostly monochrome although unshaded bi- and polychromes are present. ❖ The group is reminiscent of the art of Zimbabwe and Tanzania.	Limpopo Province	❖ Earlier paintings similar to those found in the Drakensberg. ❖ Later crude paintings are made in a white pigment.		
				Tsodilo Hills	❖ Oldest paintings are red. ❖ Later paintings include crude white images probably made by Bantu-speakers.	Tsodilo Hills	❖ Most animals are shown in lateral profile. ❖ Human figures and scenes are rare. ❖ Geometrics, probably made by Bantu-speakers
Central Group	❖ Polychrome animals some of which are shaded. ❖ Human figures are often painted in scenes. ❖ The art is related to the Smithfield Culture of the LSA	South-Eastern Group	❖ Pre- and post-Bantu Periods. ❖ Earlier art contains shaded polychromes and instances of foreshortening as well as scenes such as fishing and dancing. ❖ Later art shows sheep, cattle, horses and Europeans.	Eastern Cape and Drakensberg	❖ Dynamic School ❖ Associated with the Wilton stone tool culture. ❖ Characterised by movement, perspective and shading. ❖ Many eland.	Drakensberg-Maloti Massif	❖ Mostly be related to the Smithfield stone tool culture ❖ Technical sophistication. ❖ Human figures are mostly monochrome while more effort seems to have been expended to paint animals with many shaded polychromes found. ❖ Therianthropes are more common. ❖ No plants or handprints are seen
Southern Group	❖ Associated with the Wilton stone tool industry. ❖ Inferior to the art of other areas ❖ Mostly painted in bright red on a smudgy background. ❖ Many handprints occur.	Southern Group	❖ Mostly red monochromes. ❖ Action is not well depicted and superpositioning is rare. ❖ Handprints and finger dots are found.	Cederberg	❖ Formal School. ❖ Associated with the Wilton stone tool culture. ❖ Painted burial stones and figures with fish or swallow tails are found. ❖ Later crude images showing contact with Europeans are found.	Southern and South-Western Cape.	❖ Corresponds with the distribution of the Wilton. ❖ More primitive and less well-preserved. ❖ Mostly monochrome (red or brown). ❖ Human figures are painted in groups not scenes. ❖ Animals are shown in a lateral profile. ❖ Hook heads and handprints are common. ❖ Painted burial stones and mermaid image are found.
		Western Group	❖ A few large elaborate polychromes seen. ❖ Much of the art in this area is small, monochrome and poorly executed.	Erongo and Brandberg	❖ Formal School. ❖ Associated with the Wilton stone tool culture. ❖ Little is said about the Erongo art. ❖ Four main styles identified in the Brandberg.	Namibia	❖ Erongo has both paintings and engravings ❖ Human figures outnumber animals. ❖ Humans are painted with a twisted perspective ❖ In the Brandberg human figures are painted with steatopygia which is not seen in the Erongo. ❖ Finger dots and short dashes are found.
		Central Group	❖ Mainly post-Bantu and includes signs and symbols.			Northern Cape	❖ Monochromes(red, black yellow and white) ❖ Crudely executed geometrics, human figures and animals.

To these researchers, the meaning of the stylistic differences seen was obvious; different styles equalled different peoples. Here there is an association between the Drakensberg art and the makers of the Smithfield stone tool industry, and an association between art in other areas, particularly the southern Cape, and the Wilton stone tool industry. The assumption was that visual stylistic messages were concerned with identity (Wobst 1977). When we see stylistic similarities, we need to be aware that they are giving an archaeological identity rather than pointing to economic, linguistic or political entities (Huffman 1980). These earlier researchers did not recognise this, and instead the stone tool industries and rock art differences were seen to equate to identity and terms such as Smithfield people (Rudner & Rudner 1970: 180) or Wilton man (Willcox 1984: 142) are used. As regional differences have been comparatively underexplored in recent decades, old ideas founded on cultural-historical theories retain a tacit currency, and there is an implicit idea that regional differences point to differences in identity.

More recent research into regional difference

With the advent of the interpretative approach to rock art in the late 1970s (see for example Vinnicombe 1976; Lewis-Williams 1977, 1980, 1981a, b), research into regionality was all but ignored. The use of ethnography was shown to be an excellent means of getting at the meaning of the art. It became clear that the art was not just ‘art-for-arts sake’ but was a deeply symbolic religious art. The efficacy of this approach meant that from the 1980s onwards nearly all rock research was involved in the investigation of meaning. The emphasis was on similarities rather than differences.

There was a brief spurt of rock art quantification in the 1970s (e.g. Vinnicombe 1967; Maggs 1967; Pager 1971a, b; Lewis-Williams 1972, 1974) but little attempt to look for differences in the numerical data from different areas. Lewis-Williams (1972: 50) presented quantitative data—on the number of human figures vs animal and indeterminate images—from a number of different areas but without an attempt to explain the regional differences. Yates *et al.* (1990: 33) suggest using quantitative analysis to look at regions in rock art. This approach is taken up by Jeremy Hollmann (1993) and myself (Laue 1999). In both cases, the images studied are constrained by

the quantitative data collected by earlier researchers (such as Maggs 1967; Lewis-Williams 1972; Vinnicombe 1976). Collecting quantitative data is time-consuming and is prone to over-complication because it is unclear what to count. There were definite differences between different areas, but alone this did not give any real insight into regional differences (for further discussion on quantitative analysis see Chapter Three, 3.2.4).

Some work, although not explicitly regional, has ascribed difference to environmental or social differences. For example, there is evidence of localisation regarding which animals were seen as powerful or drawn on as symbols of potency (Huffman 1983; Eastwood 1999; Laue 2000). Mazel (1982) has hypothesised that the higher incidence of bee paintings in the north of the Drakensberg is due to this area being a better habitat for bees. Social changes in specific areas, such as the rise of individualism among shamans in the north-eastern Cape, are used to explain specific imagery (Dowson 1988, 1994; Blundell 2004). Another example is Mazel's (2009a: 107–109) argument that the shaded polychromes seen in the Maloti-Drakensberg were part of an upsurge in ritual activity around 2000 years ago in response to the Early Iron Age settlers (see also Mazel 1989: 135–136, 141, 1998). These papers are part of a body of work looking at regional and locally specific traditions (see also Loubser & Laurens 1994; Blundell 2004; Mguni 2005, 2015; Hollmann 2005a; Mallen 2008; Pearce 2009; Challis 2012). While these scholars do consider regionally specific images, there is no discussion on discerning a region and little on what differences might mean beyond the specific images considered.

More recent attempts to explicitly look at regionality in southern African rock art recommend that motif only should be looked at to avoid the tricky topic of style (Hampson *et al.* 2002; Hampson 2015). A motif is defined as “a distinctive feature or element of a design or composition; a particular type of subject”, as defined in the Shorter Oxford Dictionary (in Hampson *et al.* 2002: 17). Hampson suggests approaching regional difference through presence or absence of imagery, within three broad categories “1. Widely distributed rock art motifs; 2. Regional rock art motifs; and 3. Extremely rare or unique rock art motifs” (Hampson 2015: 90). It is agreed that those areas with similar frequencies of motifs are more likely to have

interacted than those who paint very different images (e.g. see Mills *et al.* 2013: 10). So part of a regional difference needs to be looked at in terms of motif, but this is not the only factor. If motif is the only element investigated and mapped, then we see motif regions, which ignore all the other factors that contribute to the ‘look’ of the art.

Another factor Hampson (2010, 2015) argues for is an understanding of the significance of the imagery through a thorough investigation of the ethnography. He (Hampson 2010: 7) states “I contend that we can most meaningfully define rock art regions by investigating not only formal differences, but also ideological belief-systems and why the art was produced”. But in southern Africa, regional differences in San art are seen despite the ‘ideological belief systems’ and the reason for producing the art being similar; their belief system is so widespread that it has been termed the ‘pan-San cognitive system’ (see Chapter Three 3.2.2). So although the motivation behind art making needs to be investigated, similarity in beliefs does not always translate into similarity in the images produced. Despite the title of his book being *Rock Art and Regional Identity*, Hampson (2015) stops short of discussing regional identity and what these differences can tell us about the past, “exactly what those regional emphases may signify is, at present, impossible to say” (Hampson 2015: 112).

Challenges to the study of regional difference in southern African rock art are principally the lack of comprehensive survey data and few direct dates. There are still vast areas of southern Africa where little or no rock art research has taken place. In areas where research has been undertaken, it often focuses on specific aspects of the imagery, or specific motifs rather than the general aspects of the art. Direct dating of southern African rock art is still in its infancy. Although direct dates for the paintings on shelter walls were first published in 1987 (van der Merwe *et al.* 1987), since then only a handful of images have been directly dated (Mazel & Watchman 1997, 2003; Bonneau *et al.* 2012, 2014; Bonneau, Peace *et al.* 2017; Bonneau, Staff *et al.* 2017). These problems with chronology mean that there will inevitably be a flattening out of the synchronic and diachronic elements which are used to investigate regional differences. It is unlikely, in the absence of dating, that we will be able to see micro-

regional differences, but this does not mean that we cannot investigate broad regional trends.

Regionality beyond southern Africa and rock art

Studies in regional difference in rock art, a primary focus of study in other parts of the world, encounter similar problems. There is little published on theoretical and methodological approaches to difference. Instead, ‘stylistic’ differences are analysed and often pinned to linguistic differences (e.g. Taçon 1993: 118).

The following quotations illustrate how the word ‘style’ has been used in some recent (non-southern African) rock art publications: “superficially comparable in content and style” (Wade *et al.* 2011: 29), “barbed spears with spear throwers and humans figures in an undiagnostic style” (Gunn *et al.* 2012: 58), “This painting...is remarkable for its size, detail, and style” (Wyndham 2011: 393). In each of these papers, although the word ‘style’ is used, there is no attempt to define what the authors mean by this term. In 1993, conference proceedings on the topic of style were published under the title *Rock Art Studies: the Post-Stylistic Era or Where Do We Go From Here?* (Bahn & Lorblanchet 1993). With such a promising title, they could have at least defined style, but unfortunately, although there were many arguments for the continued use of style, there was still no pinning down of the term.

With this reliance on the concept of style in much of world rock art studies, translation of these ways of looking at regional difference into a southern Africa situation is not easy. More recent studies appreciate that in order to understand regional differences and similarities it is crucial to understand the “networks of relationships in which the rock art is embedded”, but there is still a reliance on ‘style’ as a means of classification (Brady & Bradley 2014: 376; see also for e.g. McDonald & Veth 2013). In many cases, it is easier to justify the use of the term style, as often the cultural breaks are much more apparent (e.g. Turpin 2001). It is analogous to the differences seen between San rock art and farmer art in the Limpopo Province of South Africa. The former is a fine line art related to shamanism and beliefs about the spirit world, while the latter is a finger painted art, usually white, related to other practices such as initiation (Prins & Hall 1994: 177) or protest (Smith & van

Schalkwyk 2002: 244). Although there are overlaps in motif (Eastwood 2003), the manner of depiction is so different that there is no confusing the two. Very little of the regional work in Australia and North America seeks to look at regional difference between areas of art which are similar in manner of depiction and have been shown to have been produced by people with very similar worldviews, as is seen in southern African San art (cf. Taçon 1993: 118).

San rock art does not appear to correlate with ‘ethnic groups’, and the idea of style or the presence/absence of motifs does not help in defining a region or give clues to why regionality exists. I found that the work currently being done investigating similarities and differences in ceramics (e.g. Habicht-Mauche *et al.* 2006; Stark *et al.* 2008; Cordell *et al.* 2012; Roddick & Stahl 2016) is more productive regarding theoretical and methodological models for the investigation of regions. Research into African farmer archaeology has challenged the view that cultures have discrete boundaries which indicate ethnic or linguistic units. Rather, the landscape can be viewed as a series of many overlapping communities of practice that do not always share the same spheres of influence (Stahl 2009: 250). Communities of practice can be defined as units that share mutual histories of learning and engagement (Wenger 1998: 125).

Multiple communities of practice may be engaged in by individuals or larger groups of people (Stahl 2013: 54–55). Although rock art in hunter-gatherer society fulfils a different function to pottery in farmer society, exploring the formation of communities of practice through the practice of learning and knowledge transfer can help shed light onto the differences and similarities we see in the rock art across space. There are two benefits to using the concept of ‘communities of practice’. The first is that it is the practice of making the object that is important rather than the ‘style’ of the finished product, which gives us a way of investigating rock art which avoids the problematic use of ‘style’. Secondly, this theoretical view lets us move away from the ideas that relate material culture to ethnicity or identity and instead look at difference as a function of different practices over varying distances in space.

The study of regionality in southern African rock art lacks explicit theoretical and methodological approaches. More rigorous ways of investigating regional difference, which can help to understand the past more fully, should lead to a renewed interest in the study of this important subject.

1.4.2 Ethnographic accounts relating to territoriality, information exchange, and learning amongst San hunter-gatherers

Rock art scholars in southern Africa have led the way using ethnography to understand the vast and varied artistic record painted and engraved across the subcontinent. This work has resulted in an understanding of Later Stone Age cosmology and religious beliefs, evidence not gained from other aspects of the archaeological record (e.g. Vinnicombe 1976; Lewis-Williams 1981; Lewis-Williams & Pearce 2004a; Mguni 2013). Other ethnographic evidence dealing with social and political issues of life among the San has not featured as prominently in rock art research. Here, I look to some of these facets of the San ethnographic record to understand how they can help us understand regional differences in southern African rock art. I consider the San historical and ethnographic record to understand why these differences occur and what they can tell us about regional identity. I review information around territoriality and boundaries as well as possible routes of cultural transmission by looking at childhood and learning, particularly regarding how one learns to become a shaman.

The Khoisan peoples (see Barnard 1992: 7–12 for a discussion of this term) made much of the painted and engraved record left on the rocks of southern Africa. Khoisan groups once extended throughout the subcontinent. Some lived as hunter-gatherers/fishers and some as pastoralists. Despite differences in subsistence methods, there are many underlying “common features of territorial organisation, gender relations, kinship, ritual and cosmology” (Barnard 1992: 3). These underlying structures were held “in common across economic, cultural, linguistic, and ‘racial’ boundaries” (Barnard 1992: 3). It is probable that many of these structures also extend back in time (e.g. Lewis-Williams 1984). For a fuller discussion of the use of ethnographic analogy and the relevance of the ethnography see Chapter Three 3.2.1.

Here I examine early traveller reports (for distillations of these works see Stow 1905; Schapera 1930), 19th century accounts of Bleek and Lloyd (1911; see also Deacon 1986; Bank 2006), and various accounts from the Kalahari from the 1960s onwards (e.g. Silberbauer 1965, 1981; Yellen and Harpending 1972; Lee 1972, 1979; Marshall 1976; Cashdan 1983; Barnard 1992) in order to conceive of ways in which ethnography can inform on regionality in the past. Archaeological evidence of gift exchange and population movements (e.g. Wadley 1987; Mazel 1989; Mitchell 1996, 2003) interpreted with a view to the ethnographic records are also examined.

Historical records

A common misperception of many of the earlier reports on the San was that they wandered aimlessly possessing no fixed abode (Stow 1905: ix). Misconceptions were built on others and many of these persisted until relatively recently (e.g. Dean *et al.* 1983; Mazel & Stewart 1987). Stow (1905: 46) acknowledges that the Bushmen had territories but does not expand on how they saw these territories or moved from one to another. Using the work of early travellers and missionaries, Stow (1905) gives short descriptions of some different San groups, or tribes as he calls them, but does not discuss aspects of territoriality or how they saw the land and boundaries. He does give one clue as to their feelings towards their connection to place counteracting the stereotype of the Bushmen being directionless nomads:

The tenacity with which isolated survivors of once powerful tribes of these Bushmen stuck to their old caves is astonishing. They preferred to linger out their lives in abject misery, so long as they could remain in their neighbourhood, rather than follow those of their race who had removed to a distance, a step which would have forced these unhappy outcasts to abandon them forever, an idea which they could not endure (Stow 1905: 228).

Schapera (1930) notes the social organisation of the San was one of the lesser-known aspects of San society, but he offers some information as was known at the time from historical and early traveller reports. The members of each hunting band lived communally, seeing each other constantly and were mostly on intimate terms. These bands did sometimes relate to other bands through intermarriage, trade and visitation. The bands formed tribes which consisted of adjacent bands which shared a language. Each band had control over a restricted hunting territory. Members of

the band moved freely across this land but did not cross into neighbouring territory, unless for visitation or trade purposes. The waterholes defined each territory, and the extent was defined by natural landmarks such as dunes, river beds or koppies. The most common cause of disputes between bands was an infringement upon these hunting territories. Schapera (1930: 78) has only one reference to the size of these hunting territories. In the Grootfontein district in Namibia, they were estimated to be 700 km², which he felt was an exaggeration.

Late nineteenth-century ethnography

Deacon (1986), based on unpublished data from the Bleek and Lloyd archives, identifies three different groups of San living in the Northern Cape in the 1870s, the Flat Bushmen, the Grass Bushmen and the Mountain Bushmen. In the nineteenth century, these groups occupied an area of less than 600 km² that had at least three reliable waterholes (Deacon 1986: 152). There is evidence that although individuals from these groups travelled great distances, the places they considered as home were all within a day's walk.

Dialectal as well as material culture and custom differences were noted (Deacon 1986: 151). These differences included the types of animal skins worn, the eating of baboons (one group was said to eat them while others did not), and differences in arrow tips. Despite differences, religion and worldview were essentially the same and the different groups knew and revered the same medicine men. The rock art is also similar across these different territories (Deacon 1986: 153). There is also evidence that marriage happened between people from different groups, another indication of fluid boundaries with movement and interaction across them.

Kalahari ethnography

By far the most substantial body of ethnography related to the San way of life comes from the Kalahari. Though this ethnography is removed from the rock art spatially and temporally, it still provides valuable information on possible past San lifeways. Here I look at three aspects of the ethnography: how territories were viewed, how people moved on the landscape and how learning, especially learning to become a shaman, took place. San views on territoriality and movement of people give ideas on

what we may expect to see in terms of past regions, while information on learning can help us understand how ‘communities of practice’ may have formed.

Territorial behaviour

In the recent past, there was little tension between groups of !Kung San in the Kalahari as they moved around annually hunting and gathering. Boundaries of subsistence areas were recognised but these were vague, not defended and extremely flexible (Lee 1965: 136, 1972: 130, 1979: 351). Waterholes, ‘owned’ by related siblings, formed the heart of territories (Lee 1972: 129). Figure 1.6 plots nine territories in the Dobe area (Lee 1965: 134). At the time this ethnography was recorded these nine territories were home to 15 independent camps. All groups had access to permanent water but some shared waterholes. The sharing of territory by two or more camps happened when there was a close kinship between the two groups. In Dobe, the leaders of the two groups were brother and sister while those of the four camps at !goše were descendants of one woman (Lee 1965: 136).

Similarly, among the G/wi, territories were recognised, with the ‘owners’ being the descendants of those that first settled there. The ‘owner’ was the one that visitors would greet first and ask for permission to remain, but this did not mean that the rest of the group did not have a say (Silberbauer 1965: 71). Yellen and Harpending (1972: 246) plotted the movements of four families from the same ‘band’; their movements bore no resemblance to the outline of their territory. The movement of band members was very fluid with families acting independently (Sampson 1988: 17). There are two types of boundaries, spatial and social; how groups act in space is not the same as the cultural conception of their territory (Lee 1972: 126). Archaeological evidence indicates that LSA people in the Kalahari had very similar land use patterns to those ethnographically observed (Yellen & Harpending 1972: 250).

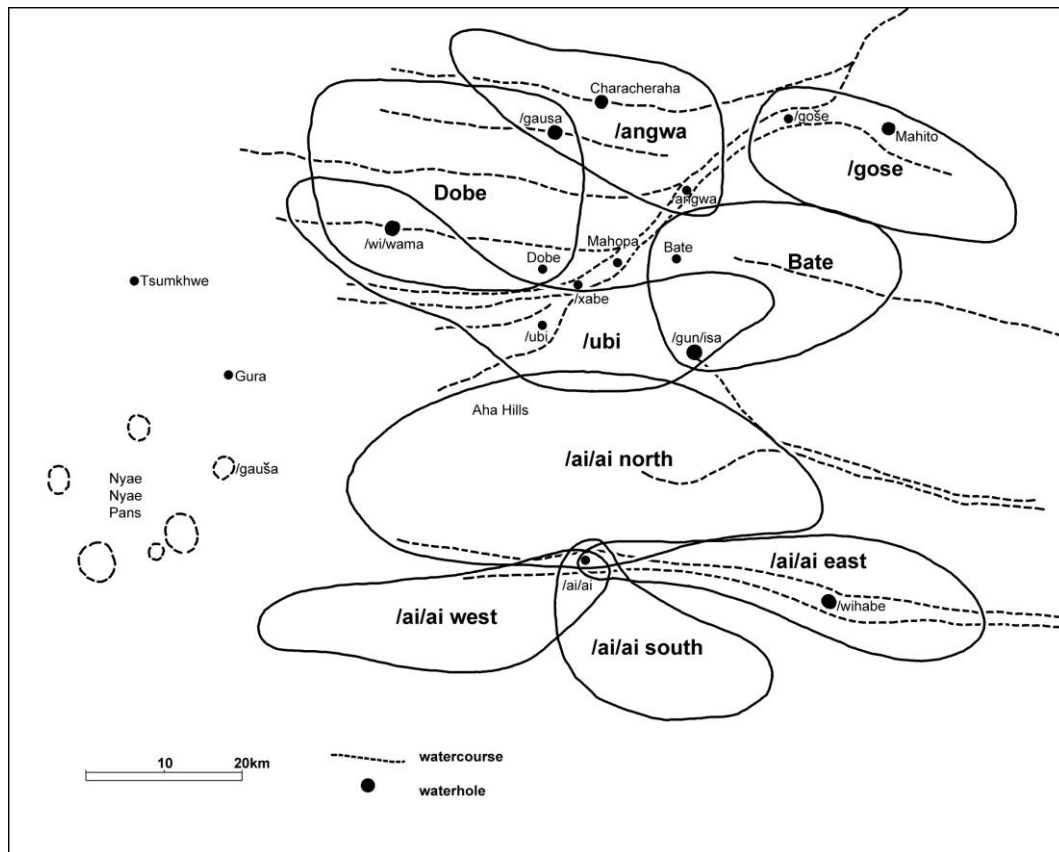


Figure 6: Nine territories shared by fifteen groups in the Dobe area of the Kalahari (after Lee 1965: 135)

People's behaviour within a territory does not match their ideological conceptions about this space (Lee 1972: 126). Amongst the !Kung, a core area rather than membership, makes up a band (Yellen & Harpending 1972: 246). The term band refers to a loose assemblage of families using an area, but individual family's movements do not correspond to the outline of the territory (Yellen & Harpending 1972: 246). There was a fluid movement of families and individuals, young men especially would travel great distances to visit and seek marriage partners.

Cashdan's (1983) study looks at environmental factors and how these might impact on territoriality amongst San groups in the Kalahari. Territoriality is the maintaining of control of an area and restricting access to one or more resources (Cashdan 1983: 47). Her study found that the most territorial groups such as the !Ko lived in the least hospitable environments with unpredictable and scarce resources. The San use social boundary defence rather than perimeter defence (Cashdan 1983: 49). They have

bilateral territorial inheritance, and the principal affiliation being with the territory in which the individual decides to live, but this can change through their life. Thus movement of people between groups is not uncommon as people typically have access rights to more than one territory (Cashdan 1983: 53). Natural features define the boundaries of territories.

Cashdan (1983) was working in the Kalahari which, although some areas were less plentiful than others, on the whole it is dry and water and other resources scarce. It is unclear whether we can use this study to infer territoriality in the more resource-rich areas of southern Africa. If this model holds for San societies in different areas and times, then we might expect to see less territoriality in areas where resources were more predictable, but current research using isotope analysis shows the opposite to be true (Sealy 2006; Sealy & Pfeiffer 2000).

Rather than wandering the landscape with no pattern, the San did recognise specific territories often marked by natural landmarks. However, these territories were not rigorously defended and moving to a new territory often entailed only speaking to some of the elders (e.g. Silberbauer 1965). There is evidence for people moving and marrying between territories even when there were dialect differences (Deacon 1986). In the Kalahari there is evidence that territoriality increased in areas where resources were scarce (Cashdan 1983).

Exchange networks and movements of people

Another practice that could have resulted in information exchange over vast areas was *hxaro*. Wiessner (1977) documented the practice of *hxaro*, a regional system of delayed gift exchange for reducing risk among the Ju/'hoansi, a !Kung group. *Hxaro* partners range from kin in ones camp to other partners over 100 km away (Wiessner 1977, 1986: 107–108). Rather than one to one partnerships, *hxaro* exchange operates in a chain-like manner (Wiessner 1977: 188). These *hxaro* chains could extend for hundreds of kilometres (Wiessner 1986: 109). Gifts exchanged along these networks could travel much further than the people concerned. However, these partnerships also encouraged people to travel to visit *hxaro* partners, sometimes as far as 200 km away (Wiessner 1986: 107–8, 2002: 421).

Archaeologists (e.g. Wadley 1987; Mazel 1989) have used ideas around *hxaro* to look at aspects of movement of people and territoriality in LSA research. Although there have been criticisms of the wholesale use of this idea (see Mitchell 2003, 2005: 160–161), as this is not a shared practice across Kalahari San groups (Barnard 2007: 75) and thus there are problems extending this idea through space and back through time. However, there is evidence of systems that served similar functions amongst other groups, for example, groups in the central Kalahari have a system of long-term lending (Kent 1993: 496–497): “Sharing is a mechanism that structures, maintains and perpetuates social relationships” (Kent 1993: 498). Even if the exact mechanisms of *hxaro* were not the same in the LSA there is evidence for movement of objects over great distances (up to at least 200 km) in prehistory (e.g. Wendt 1972: 39; Deacon 1984: 171; Mitchell 1996: 37; Ouzman & Wadley 1997: 393–394). It was also likely that non-material objects and ideas were passed along these exchange networks. An ethnographic example is provided by Biesele’s (1993: 67–70) story of the spread of the Giraffe song. Although there are different versions, it seems that this song came to an individual, Beh (who died only in 1992) and the power of the medicine song helped it spread quickly east from Namibia to Botswana. There is even evidence that it spread hundreds of kilometres south to speakers of other click languages (Biesele 1993: 69).

These exchange partnerships also allowed for young men to travel widely to look for a spouse. Young men would need to complete a bride service after marriage. These young men would go and live with their bride’s family for sometimes as long as ten years (Marshall 1959; Wiessner 2002: 418). There is also evidence from the myths and stories of the /Xam, a southern San group, that bride service was also practised (Lewis-Williams 2015: 84, 2018: 145; Thorp 2015: 167). These young men could have acted as conduits for information exchange and brought new ideas to and from distant places.

Other possible vectors of information exchange could have been through the movements of itinerant shamans. There is evidence for itinerant shamans both in the ethnographic record (Kinahan 2017) and in the archaeological record dating back

more than 2000 years ago (Kinahan 2018). Kinahan (2017: 562) summarises unpublished data from Wiessner on how four !Kung shamans move through the Kalahari. These ritual specialists had a range of between 25 and 225 km, visiting 10 or more sites separated by distances of up to 100 km, covering an area of over 14 000 km² each. The extent of shamanic activity could approximate the size of the social network of groups involved in exchange networks (Kinahan 2017: 564). If similar practices occurred in other parts of the county, this is one explanation for the seeming uniformity of the rock art over large areas. These shamans could have brought ideas and possibly even painted with the far-off groups they visited.

Learning

In any investigation of regional difference, it is essential to consider how learning and cultural transmission took place. Unfortunately, there is no direct ethnographic evidence on how teaching and learning of art-making took place. The closest we have is the story of Mapote from the 1930s (How 1962). He told how he had learnt to paint in shelters with the San. He described how the 'true' San painted on one side of the cave while he and his half-San step brothers painted on the other (How 1962: 33). Mapote's account gives the only insight into the process of San painting and paint making. Learning the painting process was not just learning how to paint, but also the pigment-making process. He wanted a specific type of ochre and described rituals that needed to take place to make the pigment (How 1962: 34). Women also partook in this practice, indicating that different people from the group came together collectively to make the pigment. There are other accounts of possible pigments used, but unfortunately, these are nearly all second hand, and the learning process is not discussed (see Rudner 1982 for a synthesis of the literature related to pigments).

In the absence of information specific to how individuals learned to paint, I investigate other aspects of learning amongst the San, particularly that of becoming a ritual specialist. I surmise that, as it has been shown that for the most part San rock art has shamanic origins, it is most likely that the painters were the shamans or ritual specialists. I, therefore, turn first to how these ritual specialists would learn their craft. Indications are that not all San were artists and there is reference to specific

people in the community who undertook this task (Stow 1905: 200, 230). The subject matter of the paintings makes it more than probable that in most cases the painters were the shamans (Lewis-Williams 1995: 145). It is likely that the use of metaphors in the art would help the novice shaman prepare for the trance state and reduce the indescribable experiences to manageable terms (Lewis-Williams & Loubser 1986: 280; Lewis-Williams 1988: 142).

In the Kalahari in the recent past young people wanting to be shamans would learn from those more experienced than them (Katz 1982: 118–140). For a full account around education for attaining *!kia* (an altered state of consciousness) see Katz (1976), here I give a summary. His focus is on the !Kung of the Kalahari, but there is much evidence for continuity in thought and practice. The !Kung experience *!kia* primarily through the *!kia*-healing dance (or trance dance) (Katz 1976; see also Lee 1968; Marshall 1969; Katz 1982). The reaching of this state of *!kia* is not the domain of a few individuals who hoard this knowledge, about half the men and a third of the women learn how to enter into this state (Katz 1976: 285; see also Lee 1968: 51). Although women enter trance as well, there is not much information on their learning process, so I concentrate on the better-published accounts of men.

Even though inducing trance is difficult, scary and sometimes painful (Lee 1968: 49; Katz 1976: 290), nearly all young San men desire to be ritual specialists or medicine men (Lee 1968: 46; Katz 1976: 289). Actual training and attempts to enter trance only begin when men marry, generally between the ages of 20 and 25 (Lee 1968: 47), but socialisation around the dance begins at birth. The /Du/da are the most isolated of the !Kung people, living in bands of 30–40 people which were between 5 and 50 km apart (Draper 1976: 200). The spaces within the village were undifferentiated by function and children were not separated from adult life. The children had close associations with many different adults in the band and due to the small numbers in the group, little time in the company of age-mates (Draper 1976: 202). Children and young adolescents, although they were around the adults, were not expected to take part in the adult subsistence activities until they were older and stronger (Draper 1976). The trance or *!kia* dance included the entire village, including babies (Katz 1976: 286; Marshall 1999: 50). As with other aspects of learning, !Kung children learn

about the dance by being present and watching and participating rather than through formal instruction (Marshall 1999: 50). Young boys grew up around the dance and even participated in it and learned the steps and movements (Lee 1968: 46).

The teacher did not demand obedience at all times from the student; the teaching was around the experience of *!kia* or trance (Katz 1976: 294). This way of teaching and learning in San society meant that unlike in many other societies where the shamans or ritual specialists are set apart from society, the trance specialist is very much part of society (Lee 1968: 51; Katz 1976: 294).

Someone who wanted to learn how to attain a trance state would ask one of the initiates who regularly went into trance to help. At the next dance, an experienced shaman would guide the novice who held his teacher by the waist as they danced around. The instruction lasted between three and five nights of dancing after which the trainee was, in most cases, able to go into trance without help from the instructor (Silberbauer 1965: 99). Similarly when learning the task of rain-making, an activity in the province of the shaman, novices had to undergo a period of training in which they assisted the rain-maker (Hewitt 2008: 214). In these cases, it is the phenomenon of learning that is happening rather than teaching. Over time the novice moves from the “observational” and through participation becomes absorbed into the “culture of practice” (see Lave & Wenger 1991: 94–95). In San society, the whole cultural group would have spent their life watching the dance and participating as outsiders, but now there is a crucial change – through participation in the dance and learning to enter a trance state the novice becomes a part of that community of practice. The novice has the opportunity to make the practice theirs as well as be able to come to a greater realisation of the parts that make up the community of practice (Lave & Wenger 1991: 111), in this case of San shamanism.

Once a person became a student of trance and started their apprenticeship, they may have begun to learn how to paint as well. The lack of evidence of learning to paint has puzzled researchers (e.g. Rudner & Rudner 1970). One explanation could be apprenticeship where the young learner first helps with simple tasks such as mixing the paint and then moves to filling in images before progressing onto the more

complex task of the outlines, such as in Renaissance art workshops. In Renaissance workshops, the apprentices would learn to paint in the style of their master, to the extent that it is sometimes difficult to tell who painted the work (Koestler-Grack, 2005: 34). There was a strong line of cultural transmission from teacher to student. Previous art-making practices (and previous art on the rocks) would influence the final look of the paintings and means paintings in the same area look similar. For an artist to become skilled in the activity of painting, they would need to “engage in the activity, practice the gestures, use the tools” and in the end get a product to progress (Gosselain 2008: 153). Although learning of the practice of art-making takes place through an individual, this learning is situated within the culture and worldview of the community in which the learning takes place. Learning is connected with the rest of the community (Lave & Wenger 1991: 97-98), and the interactions throughout the life of the painter, the communities of practice to which they belong, that would influence their behaviours and the images they are making (see Gosselain 2008: 154).

!Kia or trance was part of normal socialization and most *!Kung*, even if they never learned how to enter a trance state, could describe what it was like (Katz 1976: 289–290). Ritual specialists freely share their trance experiences with others. When they take journeys to the other world (in a trance state) they relate what they have seen to the rest of the group. This information becomes part of the belief system even if it contradicts the details of other accounts. Although teachers help the student attain a trance state, the visions and experiences of the spirit world are the student’s own and idiosyncratic views were accepted (Bieseke 1978: 937-8). Individualism is seen both in storytelling and in accounts of religious revelations (Bieseke 1978: 937; Guenther 2006: 252).

It is likely that the paintings served a similar purpose to this retelling of trance experiences that is seen in the ethnography. This can account for idiosyncratic images (Dowson 1988) as well as regionally specific images (e.g. Hollmann 2005a). The regionally specific images may be those that are seen as particularly powerful and spread within a community of practice, and in time, further. What people see was informed by what they expected to see. Seeing rock art images would have given shamans insights and expectations which could then have become part of their own

trance experience. There was, therefore, probably a looping back and forth between trance visions and the rock art images (Lewis-Williams 1995:145). This way the trance dance and the paintings would have acted “as a mechanism for instilling a sense of collective identity” (Guenther 1999: 196).

Discussion

Underlying the diverse linguistic San groups there is a common structure which explains both diversity and uniformity in these cultures (Barnard 1992: 298, 301–302). In southern Africa, there is a wide lithic spread with similarities south of the Zambezi (Lombard *et al.* 2012). There are comparable similarities in the rock art of the subcontinent. It seems that people were drawing on common ideas with different emphases and different ‘ways of doing’ in localised contexts (see Cummings 2007: 507–508, 2011: 37). Archaeological evidence indicates that LSA people in the Kalahari had very similar land use patterns to those ethnographically observed (Yellen & Harpending 1972: 250) and there is evidence that at least some of these patterns extend back in time (Lewis-Williams 1984; Mazel 1989).

The ethnography also points to how interaction could have influenced the spread of ideas, for example, kinship structures of the G/wi are very different from the Ju’/hoansi while the Naro fall somewhere in-between (Barnard 1988). This is because, although the Naro are a G/wi-like group, they have a long history of contact with the Ju’/hoansi (Barnard 2007: 109). Interaction between different groups of people would have influenced how far specific ideas spread. There is little historical evidence for movement of people and how boundaries and territories were looked upon by the people of the Drakensberg and the southern Cape, but ethnography on movement and spatial organisation of San groups in the Kalahari (e.g. Lee 1972) and the Northern Cape (Deacon 1986) can provide some clues into the past in this area.

This ethnographic information points to how cultural transmission of rock painting may have happened as well as how San groups may have seen boundaries and territories. We cannot assume that what we see in the present is as it was in the past, but we can at least use the ethnography as a starting point to understand difference.

1.5 THESIS OUTLINE

Chapter Two gives a background to the study area. Climatic conditions, geology, and vegetation are all relevant to where people lived and painted. While numerous excavated sites occur within a two hundred kilometre radius, there are no excavations from the Groot Winterhoek Mountains. These excavations from the wider area help shed light on the prehistory of the Groot Winterhoek Mountains. Limited historical documentation gives hints as to the inhabitants of the area at the time of colonial contact.

I outline my method in Chapter Three. This chapter contains two parts. First, I describe my fieldwork methods. Here I include my reasons for choosing the Groot Winterhoek Mountains as a study area. Second I review my framework for exploring regionality. I apply a multifaceted method to the question of regionality in rock art. Rather than investigating one aspect of the art, such as 'style' or motif, I break it down into various discrete categories which can be approached separately but together give a better picture of the differences seen. To move away from culture-historic views, I propose the concept of communities of practice to understand why we see difference in the art.

The main body of the thesis is made up of my publications in Chapters Four, Five, Six, Seven and Eight. These are each self-contained papers with their own reference lists. A consolidated reference list for Chapters One, Two, Three and the conclusion can be found at the end of the thesis.

Chapter 4 (paper **I**: Regionality in southern African rock art: definition, identification and meaning) summarises the problems with research into regional difference in southern African rock art and maps out a way forward for the investigation of rock art regionality. In this paper it is argued that instead of only looking at single features of the art, such as style or motif, a more integrated framework considering both the social and technical sides of art production is needed. I suggest the concept of the *chaîne opératoire* as a method to break down the art into its component parts so that consideration is given to both cultural and natural constraints that contribute to regional difference. A theoretical framework, 'communities of practice', is suggested

as the means of understanding how regional difference can inform on past population movements and social networks.

The possibility of investigating territoriality is considered in Chapter Five (paper **II**: Towards concepts of territoriality in southern African pre-colonial rock art: new insights from the Eastern Cape, South Africa). The preliminary results from a study of the Groot Winterhoek Mountains indicate that the rock art is not a reliable indicator of past territories or bands owing to the similar widespread San cosmology. Indications are that religious and ritual behaviour transcends bands, dialects and linguistic boundaries. It also seems that the regional differences that were previously noted are not as clearly defined as previously thought. Images such as a shaded polychrome eland (thought to be an indicator of the Maloti-Drakensberg region) and an example of a 'thin red line' with white dots (thought to be restricted to the Maloti-Drakensberg) point to possible material and intellectual exchange between the southern Cape and the Maloti-Drakensberg. Rock art differences are passive, rather than active, markers of social boundaries.

A more in-depth analysis of the study area, the Groot Winterhoek Mountains, follows in Chapter Six (paper **III**: McAll's Cave: characterising the rock art of the Groot Winterhoek Mountains, Eastern Cape Province, South Africa). This paper focuses on one exceptionally richly painted site, McAll's Cave, to characterise the art of the Groot Winterhoek Mountains. The painted imagery in this site is representative of the art of the wider area. The art is shown to fall firmly within the shamanic world-view of the San. This paper includes reference to similarities and differences to published work in the Cederberg, Western Cape and Maloti-Drakensberg Mountains, two separate regions proposed by earlier scholars of regional difference. Although there is considerable overlap with the imagery painted in the Maloti-Drakensberg, the art of this area does show more similarities with previously studied art in the Cederberg and Western Cape.

In Chapter 7 (paper **IV**: Birds and blurred boundaries: communities of practice and regional difference in San rock art) I explore how the concepts of communities and constellations of practice can be used to reconceptualise regional differences in

southern African San rock art. I apply these concepts to images of flight and transformation in three areas of rock art. I use this as a case study to show the utility of this theoretical approach to the interrogation of difference and regional variation in southern African rock art. Swift-tail motifs in the southern Cape, with specific characteristics related to the manner of depiction and with a limited distribution, imply the existence of communities of practice; people who interacted closely in time and space and shared beliefs and practices. 'Flying buck' motifs, limited to the Maloti-Drakensberg show similar themes of flight and transformation but a very different manner of depiction. These motifs each form a community of practice. The two areas could be an example of a constellation of practice built on a shared pan-San worldview. There has been little work done in the intervening areas, and at this time it is unclear whether these two distinct communities of practice show a real boundary or are two ends of a cline.

The last Chapter (paper **V**: 'Chaîne opératoire': towards a standardised descriptive framework for regional difference in rock art) outlines the concept of the *chaîne opératoire* as a descriptive framework for investigating rock art regional variability, a method that allows the approach of each facet of the art separately. This framework allows us to move beyond style to 'ways of doing' to achieve a more robust description of regional difference. Two areas, the Barkly East District in the north-eastern Cape Drakensberg and the Groot Winterhoek Mountains in the southern Cape are used to illustrate how this approach can be used to make regional comparisons. Here, although examples from southern Africa are used, I suggest that this approach has applications for rock art worldwide. The finished images look very different, but many of the actions along the chain of operations that create these painted artefacts are universal. Examining the steps in the production of the paintings we can more clearly see what cultural and natural factors combine to create difference that is seen today.

CHAPTER 2:

HISTORICAL AND PHYSICAL BACKGROUND TO THE RESEARCH AREA

2.1. INTRODUCTION

The Groot Winterhoek Mountains lie at the eastern extreme of the Cape Fold Belt (Fig. 2.1). This area was recognised by earlier researchers (Burkitt 1928; Van Riet Lowe 1956; Willcox 1984) as the eastern extent of a rock art ‘style’ that they argued extended from the Western Cape and along the southern Cape in a band inland from the coast (see Fig. 1.5 area 3). The lack of any significant previous research in the Groot Winterhoek Mountains has meant that my research is extending our knowledge of rock art distributions as well as serving as a case study for understanding regional difference. I do not propose that this mountain range comprises one region, but the need to limit my fieldwork area meant that this mountain range comprised a restricted unit in which to work. Other reasons for choosing this mountain range are its location and the lack of previous research that has taken place there.

2.2 GEOLOGY

The Groot Winterhoek Mountains are part of the Table Mountain Group which is a sub-category of the Cape Supergroup. The Cape Supergroup is the backbone of the Cape Fold Belt Mountains and “is a succession of creamy white to ash grey quartzite” (Rust 1998: 10). The Cape Fold Belt is a zone of complex folding and faulting extending from Vanrhynsdorp in the north along the southern Cape coast as far as the Great Fish River in the east (Fig. 2.2). It is characterised by a series of north and northwest folds in the west and folds striking east-west in the southern Cape (Newton *et al.* 2006: 521). Folding and thrusting produced a low grade of metamorphism in the rocks of the Cape Fold Belt but these are still referred to as sedimentary rocks as they have retained many of the original sedimentary structures (Newton *et al.* 2006: 526). The Groot Winterhoek Mountains are mainly quartzitic sandstone (Fig. 2.3). The rock art is nearly always found in shelters and overhangs of quartzitic sandstone (Fig. 2.4).

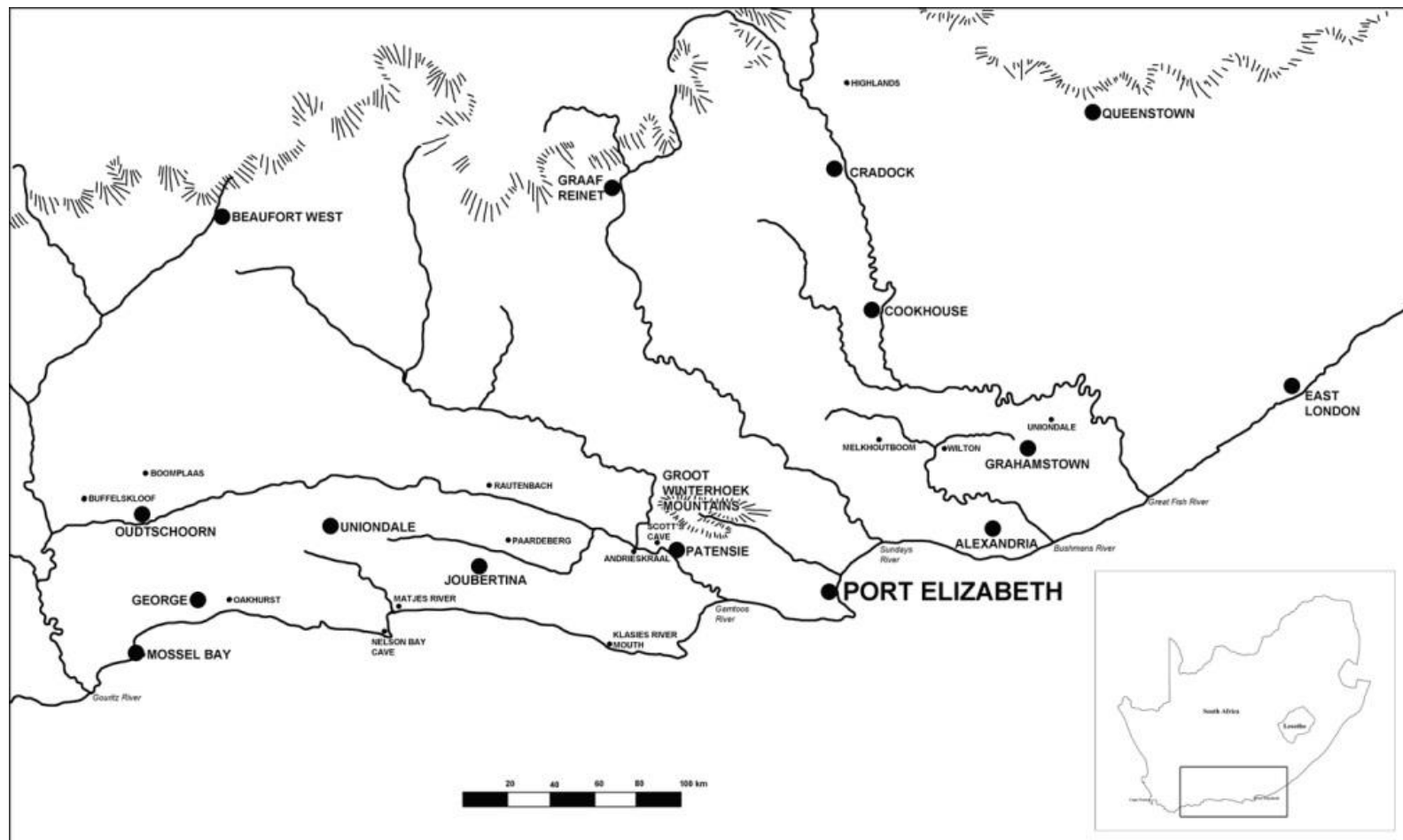


Fig. 2.1: Southern Cape: Location of the Groot Winterhoek Mountains in relation to other archaeological sites in the southern Cape (after Deacon 1976: 2).



Fig. 2.3: Folds in the Groot Winterhoek Mountains (Photo: G. Laue).



Fig. 2.4: An example of a densely painted shelter in the quartzitic sandstone of the Groot Winterhoek Mountains (Photo: G. Laue).

2.3 VEGETATION

The Groot Winterhoek Mountains lie at the eastern extent of the Fynbos Biome. Fynbos is the dominant vegetation in this biome. This biome is well defined geographically and comprises three different fragmented vegetation types, the fynbos, renosterveld and sandveld. It occurs in winter and summer rainfall zones. It is “dominated by small-leaved evergreen shrubs whose regeneration is intimately linked to fire”. It is one of only two biomes endemic to South Africa (Rebelo *et al.* 2006: 55). The Fynbos biome is found in most of the Cape Fold Belt, both the north-south and east-west mountain chains.

The two main vegetation types found in the Groot Winterhoek Mountains are the Kouga Sandstone Fynbos (FFs27)² and the Kouga Grassy Sandstone Fynbos (FFs28) (Fig. 2.5). The Kouga Sandstone Fynbos vegetation type is found on the main ridge of the Groot Winterhoek Mountain range. The high altitude slopes support vegetation mainly consisting of low fynbos whereas the intermediate slopes support three strata of vegetation with the tall shrub component mainly being Proteaceae. (Rebelo *et al.* 2006: 125). The Kouga Grassy Sandstone Fynbos is mostly found surrounding the Kouga Sandstone Fynbos at lower altitudes. This is a low shrubland with sparse emergent tall shrubs and grasses in the undergrowth. On more nutrient dense lower drier slopes there is a higher grassy cover (Rebelo *et al.* 2006: 25–26).

Pockets of Loerie Conglomerate Fynbos (FFt2) and Southern Afrotemperate Forest (Foz1) occur in the Groot Winterhoek Mountains. The mountainous area is bordered by Groot Thicket (AT3) and Sundays Thicket (AT6) to the north and east and Gamtoos Thicket (AT4) and Loerie Conglomerate Fynbos to the south (Rebelo *et al.* 2006). True afrotemperate forests are confined to large screes, deep kloofs and fire-safe zones protected by cliffs and scarps. In Fynbos regions with a larger share of summer rainfall as in the Groot Winterhoek, they often border on the Albany Thicket Biome (Rebelo *et al.* 2006: 55). Patches of Southern Afrotemperate Forest

² Each vegetation unit has a unique code consisting of its biome, bioregion or major group units, and minor group units, followed by a number linked to the minor group. The code for Kouga Sandstone Fynbos is FFs27 (F: Fynbos biome, F: Fynbos bioregion, s: Sandstone zonal group, 27: unit no. 27 within this zonal group) (Mucina *et al.* 2006: 24–25)

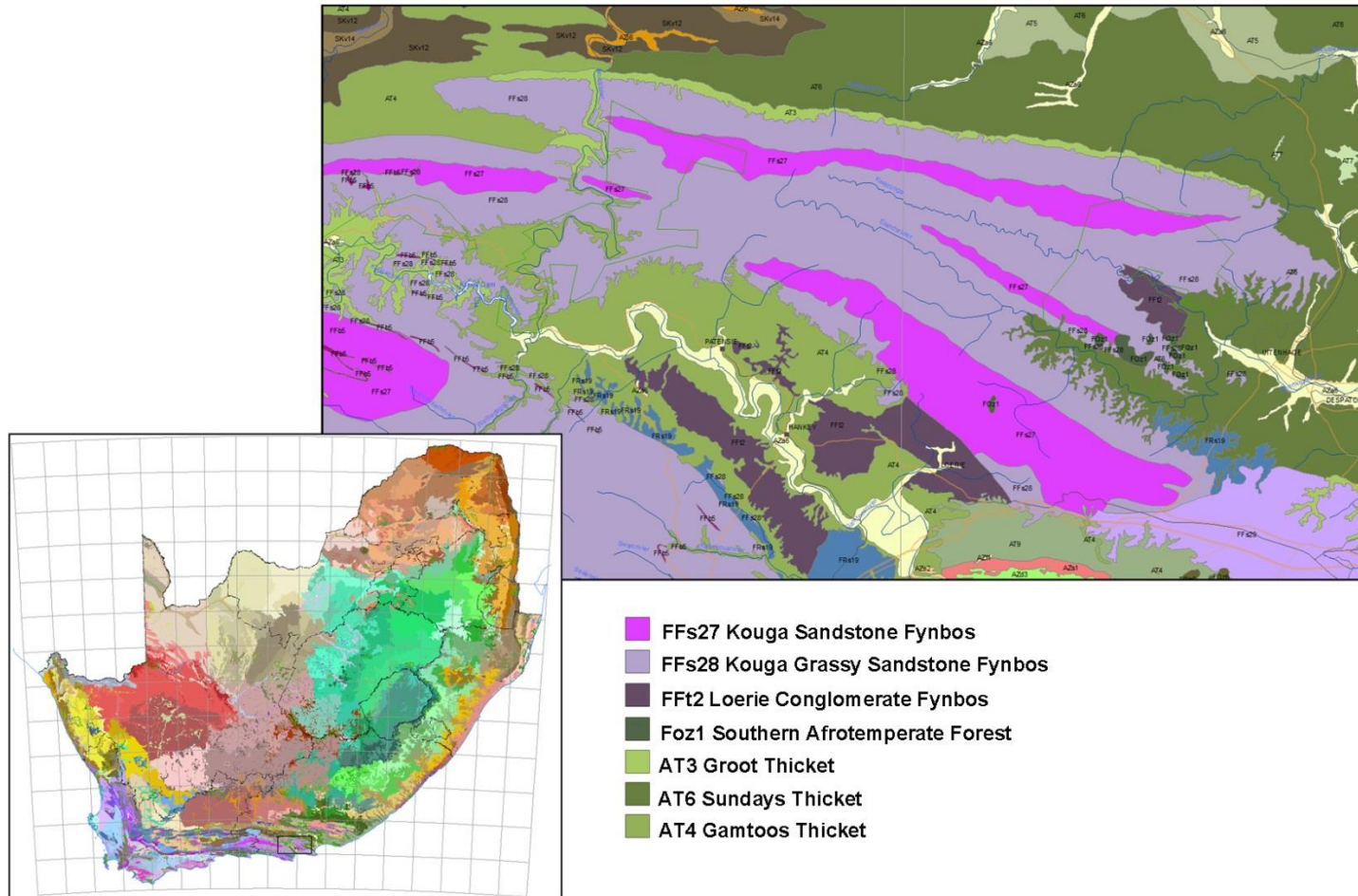


Fig. 2.5: Vegetation map: Detailed vegetation map of the Groot Winterhoek Mountains (after Mucina & Rutherford 2006).

occur in pockets in deep ravines and kloofs. This tall multi-layered afrotemperate forest contains many yellowwoods (Mucina & Geldenhuys 2006: 597). In the lower Kwazungu valley, there is a pocket of Loerie Conglomerate Fynbos. This fynbos is made up of a low shrubland with sparse emergent tall shrubs and many succulents and geophytes and occurs in fire protected gullies (Rebelo *et al.* 2006: 161–162). The Fynbos Biome of the Groot Winterhoek Mountains is bordered by the Albany Thicket Biome, Groot Thicket and Sundays Thicket to the north and east and Gamtoos Thicket to the south. This vegetation is characterised by dense, woody, semi-succulent and thorny vegetation with an average height of 2–3 metres (Hoare *et al.* 2006).

The denser woody vegetation of the Albany Thicket in some of the river valleys means that accessing the sites is often difficult, but this has also protected the sites from casual visitors. The sites that occur in the Sandstone Fynbos are at a higher altitude and more accessible but there is often a steep walk down to the river valley to get water. Only one site in the survey area was found in the Afrotemperate forests. The lack of light might have been a factor in choosing not to paint in these areas, but our survey also noted fewer suitable caves where this vegetation occurred.

2.4 CLIMATE

The southern Cape is known for an unpredictable and variable climate (Lubke 1998: 5). The Groot Winterhoek Mountains lie in the transition zone between summer and winter rainfall (Lubke 1988: 6); while rain may fall at almost any time of the year, the annual volume is generally low with a slight peak during winter (Stone *et al.* 1998: 43).

Evidence from Boomplaas, to the west of the Groot Winterhoek Mountains, points to a considerably wetter but cooler climate during the later Holocene. At around 6400 BP it seems to mark an arid time with long hot summers with little rain. In the last 2000 years, little rainfall in the drier warm months meant a contraction of the forest vegetation. Lower temperatures may have been experienced during this time (Deacon & Lancaster 1988: 133).

Other evidence for past climates in the southern Cape comes from isotopic data from the Uitenhage aquifer and Cango speleothem (cave mineral deposits from water such as stalactites) (Deacon & Lancaster 1988: 141–144). The Holocene samples from the Uitenhage aquifer show an average groundwater temperature for the Holocene of $19.5 \pm 2^\circ \text{C}$ which is at about 5.5°C higher than during the last glaciation, but similar to today's levels (Heaton *et al.* 1986: 86). Evidence from the Cango speleothem shows a similar rise in temperature (Vogel 1983: 392–393) between the Last Glacial Maximum and the Holocene, with the temperatures being within 1°C of present-day temperatures during the last 5000 years (Deacon & Lancaster 1988: 143). Temperature fluctuations occurred during the Holocene, but the scale of change was lower than preceding time periods (Deacon & Lancaster 1988: 157). Archaeological evidence from the southern Cape indicates that by 5000 years ago large mammal communities were similar to those recorded in historic times (Deacon & Lancaster 1988: 158). Hall (1990) has proposed that increased population densities in the southern Cape from around 7000 years ago was caused by the movement of people into the area due to increasingly arid conditions in the central interior of the country.

2.5 FAUNA

The Albany thicket in the past supported a large number of herbivores, ranging in size from duiker to elephant (Skead 2007). It has a high nutrient status (Hoare *et al.* 2006: 546) compared to the fynbos (Rebelo *et al.* 2006: 85–87). This, and the year-round water availability suggests that the large herbivores were permanent residents of the areas surrounding the Groot Winterhoek Mountains (Stuart-Hill 1992: 699–700; Hoare *et al.* 2006: 546). Historical records (Skead 2007: 23–33) document a diverse fauna in the southern Cape, incorporating African megafauna (elephant, black rhinoceros, hippopotamus), numerous bovids and equids (kudu, eland, red hartebeest, Cape mountain zebra, quagga), and a wide range of carnivores (hyaena, leopard, lion, serval, wild dog and black-backed jackal).

2.6 ARCHAEOLOGY

Some of the more accessible rock art sites in the Groot Winterhoek Mountains have been previously published, but with little to no interpretation or contextual information. Elephant Cave (also known as Abel's Cave) is the most well-known. It

was first published in 1963 by Willcox (1963: 50). It was republished later (Willcox 1984: 240), as was a scene from Dying Bantu Shelter³ (Willcox 1984: 187). Elephant Cave was also published by Woodhouse (1984: 103; 1992: 50). Images from six sites in the Groot Winterhoek Mountains were published by Coetzee (1998: 81, 85). The nearest in-depth research to be carried out on rock art imagery in the southern Cape was by Hollmann (2005a, b) with images as far east as Baviaanskloof, and Hall (1986) who investigated cattle and sheep images to the east and north of the Groot Winterhoek Mountains.

No archaeological excavations have taken place within the Groot Winterhoek Mountains. A 2015 a CRM (Cultural Resource Management) survey noted scatters of Middle Stone Age (MSA) artefacts at the lower altitudes and notes that LSA artefacts are found in the shelters (Booth 2015). The survey showed no archaeological material on the tops of the mountain range (Booth 2015: 4), which makes sense as it would not have been an attractive area to occupy as it is steep to access, lacks water and food sources are difficult to access (Booth 2015: 28) due to the low nutrient vegetation. Many of the shelters in which rock art was recorded have signs of LSA occupation. Some of the artefacts on the surface and along the driplines of shelters include stone artefacts (Fig. 2.6), ostrich eggshell beads (Fig. 2.7) and thin-walled pottery (Fig. 2.8).

The most comprehensive excavation project in the greater area took place between 1963 and 1971 with a project called “The Prehistory of the Eastern Cape” (Deacon 1976). It was concerned with sites dated mainly to the Holocene in the southern Cape (Fig. 2.1). Sites excavated are situated both to the west and north-east of the Groot Winterhoek Mountains. This project (Deacon, H. 1976, 1979, 1983; Deacon, H. *et al.* 1976, Deacon, H. *et al.* 1978, 1984; Deacon, J. 1972, 1974, 1984) was important in understanding the Wilton Industry and went beyond patterns in stone tools to ones which included a whole set of ‘adaptive strategies’ (Parkington 1984). Later research to the west of the Groot Winterhoek Mountains, in the Baviaanskloof/Kouga region, by Binneman (1997, 1998, 1999, 2001, 2006/2007) led

³ Common shelter names are based on those given by Mountain Club (Eastern Cape Division) members and landowners.

to the identification of a new stone stool industry called the Kabeljous (Binneman 2006/2007). There are indications that there might have been a distinct boundary between two contemporary groups in the area, making two different types of stone tools, the Wilton and the Kabeljous (Binneman 2006/2007). Although these excavations are over 100 km away, they have implications for the interaction of groups and the demarcation of boundaries which might be identified in the rock art at a later date.



Figure 2.6 Stone artefacts and a piece of pottery from Dassie Dung Shelter, Groot Winterhoek Mountains (Photo: G. Laue)



Fig. 2.7: Surface finds of pottery, stone artefacts and ostrich eggshell beads found at Elephant Shelter, Groot Winterhoek Mountains (Photo: G. Laue).



Fig. 2.8: Thin-walled Later Stone Age pottery from Donnewetter Shelter, Groot Winterhoek Mountains (Photo: G. Laue).

Burials are found in some shelters and shell middens along the southern Cape coast, a pattern of burial not found in other parts of the subcontinent. Isotopic analysis of some of these skeletons indicates that populations from two areas near Plettenberg Bay had very different diets (Sealy 2006). The interpretation is that the only way such an economic separation could have come about was if the two populations lived in mutually exclusive and clearly demarcated territories (Sealy 2006). The dates for these burials are between 2000 and 4500 years ago. During this time it seems there were population movements from the interior to the southern Cape due to increasing aridity (Deacon 1974; Hall 1990). An increase in population along the Cape Fold Belt may have led to more settled communities and more exclusively territorial groups (Sealy 2006: 586). Isotopic analysis indicates that there was probably more territoriality amongst hunter-gatherers in the southern Cape than in ethnographic examples of San groups in the Kalahari (Sealy & Pfeiffer 2000). This is in contrast to Cashdan's (1983) model proposed in the Kalahari where increased territoriality is correlated with resource scarcity (see Introduction).

Over 40 painted stones have been found in the southern Cape (Rudner 1971; Pearce 2003, 2005, 2008). Many are associated with burials, and are another feature unique to the southern Cape. The imagery on these stones points to aspects of supernatural travel in the spirit world (Pearce 2005: 52). The oldest painted stones are from Boomplaas (Deacon *et al.* 1976: 142) and Groot Kommandokloof Shelter (Binneman & Hall: 1993: 93–94), dated to 6400 ± 75 BP and 6430 BP respectively. The youngest is from Robberg Cave D at 1925 ± 33 BP (Rudner 1971: 54–55). Pearce (2008: 125) supplies a complete list of available dates for painted stone from the southern Cape.

These painted stones give an important time context to the art of the southern Cape. Due to the expense and difficulty of directly dating rock art images, much of San rock art is not dated. In recent decades there has been a concerted push to date more of the art (Mazel & Watchman 1997, 2003; Mazel 2009a,b; Bonneau, Brock *et al.* 2011; Bonneau, Pearce *et al.* 2017; Bonneau Staff *et al.* 2017), but still very few dates exist and none from the southern Cape. The earliest dates for the parietal art are 2998–2381 cal BP for the Maloti-Drakensberg and 5723–4420 cal BP for Botswana (Bonneau, Pearce *et al.* 2017). These dates and the painted stones are strong evidence

that the art of the Groot Winterhoek Mountains was painted in the mid to late Holocene.

Domestic livestock images are known from rock art sites in the wider southern Cape (Deacon *et al.* 1978: 41; Hall 1986; Laue 1999: 37–38), but no unequivocal contact imagery is seen in the Groot Winterhoek Mountains. Sheep, indicating a herder presence, are seen in faunal assemblages from the southern Cape from at least the early first millennium AD (Derricourt 1977: 55; Deacon *et al.* 1978: 57). Isotopic evidence points to a shift during this time to people eating significantly more C₄ based foods probably due to an increased consumption of domestic animal products, probably cattle (Sealy 2010). Cattle, as well as sheep, were being herded by pastoralists. There is evidence that cattle were of increasing importance moving from west to the east along the southern Cape coast (Elphick 1985). Sealy (2010: 77) postulates that this was due to interaction with Bantu-speaking peoples on the east coast. Msuluzi Phase Early Iron Age farmers, with cattle, living on the east coast of South Africa, settled as far south as the Buffalo River (present-day East London) from the late 7th to 9th centuries AD (Maggs, 1980; Nogwaza 1994; Binneman 1996). Interactions between these groups seem to have been taking place slightly west of the Groot Winterhoek Mountains (Elphick 1985), although for the most part farming groups tended to inhabit areas of summer rainfall, west and north of the Fish River (Maggs 1980: 10). Historical evidence (Stow 1905; Heugh 1989) places San still in the area in the 1880s, but by this time they were made up of raiding groups. They were no longer following a traditional hunter-gatherer way of life and probably no longer painting. It is unclear when their social structures began to break down, but Hall (1990: 278) argues that a hunter-gatherer way of life breaks down relatively quickly after contact with farmers. I suggest this points to an approximate minimum date for the art of around 1000 years ago when other groups started to move into the larger area.

2.7 ROCK ART PRESERVATION AND CONSERVATION

Much of the rock art in the Groot Winterhoek Mountains is poorly preserved. Fortunately, the inaccessibility of many of the sites has meant that they are seldom visited which has protected them from human-induced conservation problems. Eel

Cave, in the Groendal Nature Reserve, is the only rock art site regularly visited by the public. This site is also one of the few sites with graffiti (Fig. 2.9). Other problems at the site seem to be due to ignorance rather than deliberate vandalism. One set of images is very faded and it is doubtful that they would be seen by the untrained eye. These images show signs of being rubbed by people leaning against them or putting their packs against them (Fig. 2.10). There is also evidence of fires being lit right in front of the paintings even though the lighting of fires in the reserve is illegal (Fig. 2.11).



Fig. 2.9: Eel Cave, Groendal Nature Reserve, Groot Winterhoek Mountains, is one of the few sites with graffiti. Note the scratched graffiti lower centre right (Photo: G. Laue).

For most of the other sites, natural factors are the biggest threats. Apart from general fading due to sunlight and rain, factors such as lichen growth (Fig. 2.12), dust (Fig. 2.13), water (Fig. 2.14), and fire are also a problem. One of the most upsetting instances, for me, involved Percy's Cave. A visit in 2012 showed a densely painted cave (Fig. 2.4). When we returned in 2013 after a veld fire, the site had been badly burnt with many instances of spalling (Fig. 2.15).



Fig. 2.10: An elephant that is very faded due to rubbing, Eel Cave, Groendal Nature Reserve, Groot Winterhoek Mountains (Photo: G. Laue).



Fig. 2.11: Camping fire made underneath the paintings at Eel Cave, Groendal Nature Reserve, Groot Winterhoek Mountains (Photo: G. Laue).



Fig. 2.12: Lichen on a painting from Hornets Cave, Groot Winterhoek Mountains (Photo: G. Laue).



Fig. 2.13: Cow Dung Cave, Groot Winterhoek Mountains, has a large dusty living floor. Dust has settled on some of the images, obscuring them. (Photo: G. Laue).



Fig. 2.14: Boulder Shelter is situated in the river bed and there is evidence of flooding through the shelter which has destroyed most of the paintings in this shelter (Photo: G. Laue).



Fig. 2.15: Percy's shelter after a veld fire. The tree growing in the shelter caught fire blackening the whole shelter and obscuring many of the paintings (Photo: G. Laue).

2.8 HISTORICAL BACKGROUND

Settlement of Europeans in the region east of the Kabeljou River was only permitted in the late 18th Century. Before this time the only Europeans were a few Boer squatters, travellers passing through the area and hunters. They encountered San groups, the Ghonaqua (a Khoekhoen herder group) and a few Bantu-speakers (Stow 1905: 204). After the settlement of the area was approved in 1776, Dutch farmers began to settle permanently as far east as the Sundays River (Stow 1905: 212). By the time British settlers began to settle a little further to the east in 1820, Dutch farmers were well established in the area (Booth 2015).

There is evidence that San still resided in the Groot Winterhoek Mountains until as late as the mid-1880s (Stow 1905; Heugh 1989). A band of San raiders operated in the Uitenhage area until about 1885 living in the hard to access gorges of what is now the Groendal Nature Reserve (Heugh 1989: 14). Some San survived as servants on local farms until the 1920s (Heugh 1989: 14). The raiding groups frustrated the farmers in the area and “hunters of the time would more readily shoot a Bushman than an Eland” (Heugh 1989: 14). One story goes that a farmer’s son, ‘Baby Doubell’, of 16 or 17 was grazing his father’s cattle on the commonage near Uitenhage when a group of San raiders appeared and stole the cattle. Doubell followed the trail into ‘Skelm Kloof’. Once he had sighted the cattle, he returned home and told of his discovery. A commando formed of farmers and police headed into the mountains and hunted the band killing most of them (Heugh 1989). The place of their burials is still known.

2.9 CONCLUSION

The geology of the Groot Winterhoek Mountains has formed many overhangs and shelters with flat sandy floors and large but faceted rock faces on which the rock art was painted. The vegetation is of low nutritional value, and it is unlikely that large herbivores roamed the high mountain tops and steeply enclosed valleys, but the surrounding areas were probably rich with game. The large-scale excavation projects that have taken place in the greater area give a good understanding of the past San populations within which to situate the art of the Groot Winterhoek Mountains. The inaccessibility of the mountains made them an excellent refuge for the last San people of the area, although it is unlikely that the painting tradition continued to this

period. I argue that it is more probable that the paintings we see today were made during a limited period between 5000 and 1000 years ago.

CHAPTER THREE:

METHOD

This chapter comprises two parts. First, I outline my fieldwork methodology and how this relates to the overall aims and objectives of this project. In the second section, I summarise my framework for the investigation of regional difference in southern African San rock art.

3.1 FIELDWORK

3.1.1 Aims and objectives of fieldwork

I aimed to use a limited study area as a case study to investigate rock art regionality and through the assessment of the art of this area come to an understanding of how best to approach spatial differences in San rock art.

The objectives were to:

- Locate an area suitable for a survey that would meet my needs for a case study.
- Establish a database of sites (Appendix A).
- Record each site with photography and a First Site Report form.
- Undertake quantitative analysis at selected sites.
- Trace selected images.

3.1.2 Choice of the study area

To investigate regional difference I needed a study area that would fit the following criteria:

- An area with San rock art.
- An area with paintings rather than engravings.
- An area that was relatively unexplored in terms of its rock art.
- An area which was to the edge of a previously identified region rather than being in the middle.

San rock paintings and engravings occur throughout most of the southern African subcontinent. Also identified are rock art traditions attributed Khoenkhoen herders (Smith & Ouzman 2004), and Bantu-speaking farmers (Namono 2006). These two

art types have more limited distributions (Smith & Ouzman 2004; Namono 2006) and are distinct from the San art. The difference in culture and subsistence patterns can account for the distinctions between these art types and that of the San. On the other hand, San art shows extensive similarities across the subcontinent; enough for the proposal of a pan-San cognitive system (McCall 1970: 18; Lewis-Williams 1984: 227; see also Guenther 1999: 33; Deacon & Mazel 2010) (see section 4.2.2). However, it is the differences in the San art rather than the similarities that are of interest to me.

In this study, I consider rock paintings rather than engravings as they carry more visual information as well as differences beyond just technique. A future study of regionality of engravings might bear fruit, but as research stands today, the majority of positively attributed San engravings are of animals (Steel 1988; Rusch & Parkington 2010) and have more limited distributions (Van Riet Lowe 1956).

My reasons for choosing an unexplored area for this research are two-fold. Investigating new localities can lead to fresh insights as well and further contribute to the body of rock art scholarship. Many still unexplored rock art areas exist throughout southern Africa. A more extensive database of sites is essential for future regionality studies and comparisons. As discussed in Chapter 1 the earlier part of last century saw many researchers grappling with the idea of regional difference. The country was divided up into regions and basic definitions of these regions given. There is a tacit acceptance of these regions by many currently working in southern African rock art research. Although the descriptions of difference were often vague, these earlier researchers did point out some real broad differences. To further investigate this topic, it is necessary to look at the border areas, areas that are on the periphery where interaction might be occurring and where the difference may not be as noticeable.

The Groot Winterhoek Mountains, Uitenhage District, Eastern Cape Province, South Africa fit all these criteria. Although there are a few published images from sites in the area, no thorough investigation of these painted images has been undertaken. The paintings fit within the San shamanic world-view (III Laue 2017).

The Groot Winterhoek Mountains lie at the Eastern extreme of the previously defined southern/Western Cape art type and are almost equidistant from the well-researched regions of the Cederberg in the Western Cape and the Maloti-Drakensberg massif to the north. These two areas are perhaps the best studied in South Africa which means there are comparative data available to aid my research.

3.1.3 Fieldwork in the Groot Winterhoek Mountains

I aimed to record the aspects of sites that I could use to investigate regional difference as well as gain a representative sample to characterise this newly described area.

My objectives were to:

- Survey in areas with known sites and plot site coordinates on a map
- Fill out a detailed site recording sheet which I constructed.
- Make a detailed photographic record of each site.
- Trace selected images.

After two preliminary field trips in 2012 to ascertain the suitability of the area, a further seven field trips took place in 2013 and 2014. During the preliminary work, 19 sites were visited, of these 13 were revisited in 2013 for follow-up for further work including quantitative analysis and tracing. Another 18 sites were identified in the 2013 and 2014 field seasons bringing the total to 37 sites.

Survey Work

Before my research, active work in the Groot Winterhoek Mountains was minimal. A publication in the *Journal of the Mountain Club of South Africa* (Coetzee 1998) included images from 6 shelters in the Groot Winterhoek Mountains and some background to rock paintings in the Eastern Cape Fold Belt. The Mountain Club noted a total of 131 sites in the Groot Winterhoek Mountains. Other published photographs of paintings in the Groot Winterhoek are from a site near the Cockscomb (Willcox 1963:50, 1984: colour plate 40; Woodhouse 1984: 103; 1992:50) and a site in the Groendal Nature Reserve (Willcox 1984: b&w 14.2). Only one farm containing rock art is listed by Van Riet Lowe (1956) in his report *The Distribution of Prehistoric Rock*

Engravings and Paintings in South Africa. None of these publications contained co-ordinates or directions to the sites noted.

My initial background work started with discussions with members of Eastern Cape Division of the Mountain Club of South Africa. Since vandalism has occurred in instances where painted sites have become known to the public (Coetzee 1998: 84), many members were worried about speaking to me and giving me information on the sites in question. I managed to convince some of the necessity of undertaking thorough recordings of the sites as they are deteriorating with time. I was given a copy of a map drawn up in the 1960s by Peter Heugh and Lew Knight (Werner Illenberger pers. com.) which included locations of 19 sites in the Groendal Nature Reserve. The map had short descriptions of each site such as Site: Tunnel Cave, Principle Paintings: Dancing Figures, Preservation: Good. I also managed to obtain copies of maps and site information recorded by Clifford Hughes over the last 30 years.

I undertook two short preliminary field trips in July and November of 2012 to assess the feasibility of a broader scale survey and research project in the area. I used information from the Heugh/Knight Map and directions from Mountain Club Members to find the sites. Although the accessibility of the sites was not always easy, in this initial fieldwork season 19 sites were visited and simple recordings made. This work showed that the area held promise for further research.

In 2013 and 2014 further fieldwork was undertaken. During these fieldwork seasons many of the previously recorded sites were revisited for more thorough recording and tracing, and new sites were documented. Many of the sites are remote with some being up to a two-day hike from the closest place accessible by car. This meant that to access many of the sites I had to hike into the mountains with camping and recording equipment. Backpack weight constraints meant that the longest I could stay out in the field at any one time was approximately ten days. Unlike areas in the Drakensberg, where I have sometimes seen ten or more sites in a single river valley, the painted sites in the Groot Winterhoek Mountains are spread out, and it is seldom possible to visit more than one site per day (recording time included).

Time constraints and the nature of the terrain meant that a systematic survey was impractical so I instead relied on word of mouth and documentary sources to find sites (see Laue & Challis 2001a for more information on rock art survey techniques). This allowed me to fulfil my aim and visit a representative sample of 37 sites in the study area.

Site Reports

Site report forms for recording rock art vary from a simple one page to those that are many pages long (for examples of rock art site reports see Ziolkowski 1998: 20; Laue 1999: 74–75; Helliksen *et al.* 2001: 200–224; Loendorf 2001: 62–63; Deacon *et al.* 2018). It is impossible to record every aspect of a site and therefore rather than trying to document everything, researchers should be explicit in what they select (Loubser & Den Hoed 1991: 1; Rosenfeld 1978:10). The Rock Art Research Institute (RARI), University of the Witwatersrand, recording form is very simple (Appendix B). It is designed to capture the most basic site information for the re-visitation of the site if needed. Researchers can then create customised recording forms based on their specific research questions rather than using a standardised form which may not be suited to their needs (Clegg 1991:113; cf Swartz & Zancanella 1991: 114). I put together a recording form specific to my research questions regarding regionality and the art of the Groot Winterhoek Mountains (Appendix C).

The recording form I developed is eight pages long and was printed out double-sided. This gave enough space for the recording of the majority of sites, but a few of the larger sites needed two or three forms to capture all the details. Page 1 gives necessary information about the site. The site number is a unique identifying number that is given when entered on the SARADA database (<http://www.sarada.co.za>). The date visited is important regarding conservation, as future site visits may show deterioration of the site.

The province and district in South Africa of each site were recorded. Standard RARI naming principles were used. The first part of the name is the farm on which the site occurs based on the 1:50 000 survey maps published by the Chief Director of Surveys and Mapping, South Africa. The second part is a number based on site

visitation order. The alternative name is any name or names given to the site by members of the public, landowners or traditional custodians. Alternative names were given when none was known for the site. In this thesis, I use alternative names and coordinates are omitted, because of vandalism and damage that occurs at sites once they are known to the public. As some researchers have attempted to make a case for the importance of elevation, this was recorded (e.g. McCall 2010). A handheld GPS recorded the elevation and coordinates of each site. These readings were confirmed and marked onto a 1:50 000 survey map.

Options for four types of site are given on the report form: shelter, overhang, cliff face and boulder. An overhang and shelter were differentiated by floor space. A site was considered a shelter when there was enough space for at least three people to shelter from the elements and sleep stretched out. If a site had little or no floor, it was called an overhang. Crevices, tunnels and caves going into the back of the sites were recorded. There is evidence that sites may have been chosen partly for these features, but more study is needed (III Laue 2017: 150). A basic visual assessment was made as to the preservation of the images using subjective terms such as faded, good, very good. I did not do full conservation assessments but made records of threats to the site, such as fire, dust, and vandalism. Any surface archaeological finds were photographed and recorded on the form, as was the excavation potential based on the depth of the deposit and number of artefacts found along the shelter dripline.

Page 2 gives space for sketches of the images. Sketches are an easy and cheap method of documenting rock paintings that require little extra equipment. It is also a non-contact method of recording and requires no specialised training before it can be undertaken (although one's sketches improve with practice). Producing sketches requires one to look closely at the art and is useful in recording the relative position of the images as well as the surface features (Laue & Challis 2001b: 101–2).

Page 3 provides a presence-absence checklist. It has been proposed that one way of investigating regional differences may be to consider the presence and absence of motifs (Hampson *et al.* 2002; Hampson 2015) (see III Laue 2017: table 5). Elements were chosen based on motifs highlighted by previous researchers as regional features

(Burkitt 1928; Van Riet Lowe 1956; Rudner & Rudner 1970; Willcox 1984) or personal observation based on my fieldwork in all provinces of South Africa, Lesotho, and Zimbabwe.

Page 3 and the next five pages give space for quantitative analysis of the imagery. This section comprises animals, human figures, therianthropes and geometrics, abstract images, handprints and finger marks and equipment. Elements such as colour, technique (monochrome, bichrome, polychrome), orientation, size, sex (for human and therianthropic figures) and species (animal figures) were chosen so that information could be easily compared to other quantitative studies (Maggs 1967; Pager 1971a, b; Vinnicombe 1976; Lewis-Williams 1972; 1981a; Hollmann 1993) (see **III** Laue 2017: figs 16 & 25). This section also includes space for information on groupings, superpositioning, the smudging and rubbing of the rock surface as well as details of 'style'.

Although this site report form was made especially for my work in the Groot Winterhoek Mountains, I made it as broad as possible so that it could be adapted easily for investigations of regional difference in other parts of the subcontinent.

Photography

Photography is an essential part of rock art documentation. It provides a record of the art that is as close to the original regarding colour, rock surface and environment. It can also be useful in providing a pictorial history of the state of preservation (Norsted & Laue 2001: 81). Each site was photographed using a Nikon D300 digital camera. Photographs were taken using raw and JPG formats. Natural light was used when at all possible as it showed the Groot Winterhoek Mountain rock art at its best. Some images deeper in the shelter were photographed using a reflector and/or a flash. I tried to work systematically through each shelter in a downscaling order from overall to close-ups (Norsted & Laue 2001: 91). After a photograph of the whole shelter, I moved left to right through the shelter photographing each section with rock paintings. I then proceeded through the shelter again from left to right taking pictures of 'scenes', individual images and close-ups of selected features. Later some

of the images were subjected to DStretch manipulation (Harman 2006) to enhance faded images (Fig 3.1; **III** Laue 2017: fig. 19).

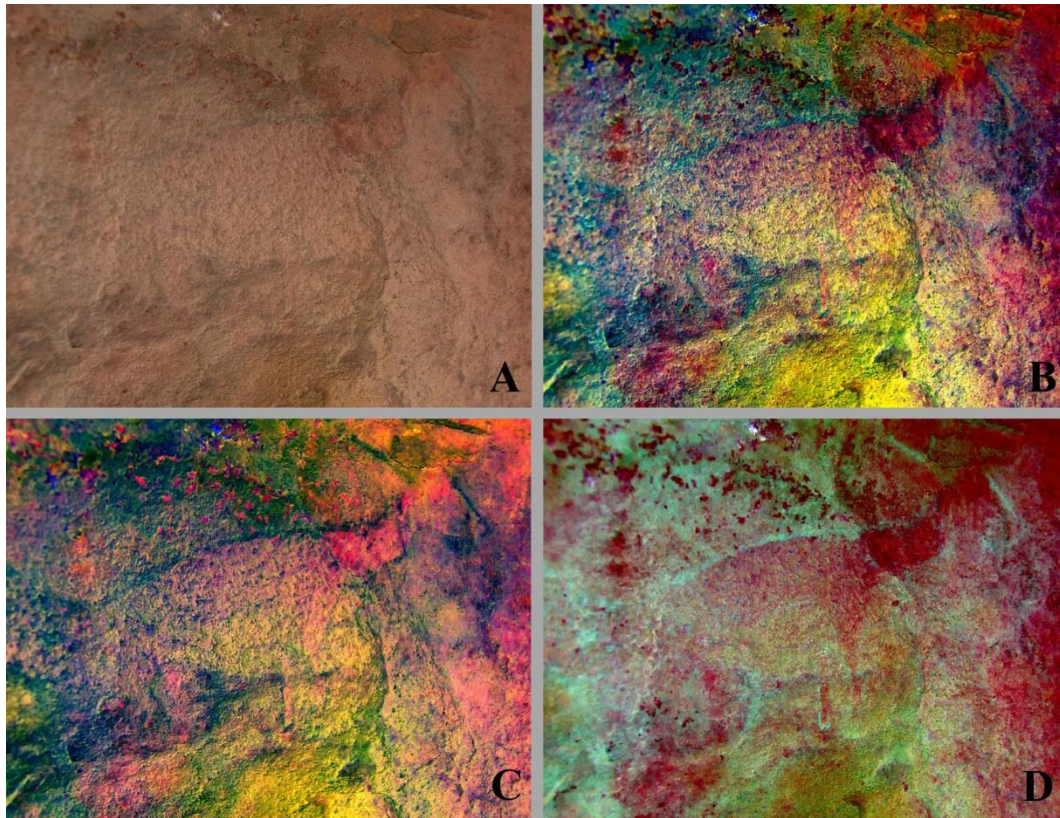


Fig 3.1: An example of DStretch manipulation on a single image from Cave Charles. A: The original image is very faded, and all that can be seen is faint black outlines with red infill. B: The same image using the LDS colourspace. The black outline is more apparent as are the front legs near the centre of the image. C: In this image, the YBK colourspace has been used, and the black and red are more distinct. The black horn is visible meaning the animal can now be identified as an eland. D: In the YDK colourspace manipulation the black pigment shows up as off-white which serves to confirm earlier interpretations of the image. In this manipulation, the red of the hind legs is also slightly clearer.

Tracing

Direct tracing of rock art images has been central to rock art recording in southern Africa. Although other techniques such as DStretch manipulation and digital tracing are becoming more common, I believe that none of these methods can replace direct tracing of the images. Tracing makes the recorder look closely at the images and figure out exactly what is going on and can pick apart details that are unclear in a photograph (Laue & Challis 2001b: 104-5). There is a certain amount of subjectivity

involved, but this is unavoidable in any recording method. The one thing tracing cannot accurately portray is colour so in this way photography and tracing are complementary techniques.

There have been criticisms of direct tracing (e.g. Bednarick 1990; Genge 1990) but, I firmly believe the positives outweigh any perceived negatives. I used the following technique (after Loubser & Den Hoed 1991). A piece of single matt *Ozotex*TM was placed over the images. The sheet was attached to the rock surface above the paintings taking care that it was not set on friable rock or over any area with possible pigment. The smooth side of *Ozotex*TM faced the rock surface. Tests have shown that electrostatic forces do not build between the paper and the painted surface dislodging pigment fragments (Loubser & Den Hoed 1991: 3). The images were then traced using a 0.35 mm clutch pencil. When tracing, the pencil is not pushed up against the rock; there is almost always a small gap between the tracing paper and the painted surface.

The completed tracings are taken back to the lab and redrawn in black ink using *Rotring*TM pens with different types of stipples representing the different colours. These black and white drawings are archival. They are also conveniently scanned and used in publications.

3.2 INVESTIGATING REGIONAL DIFFERENCE

3.2.1 Ethnographic analogy

Researchers have long used ethnographic data in the interpretation of archaeological artefacts and features (see Orme 1974; 1981). With a more theoretical trajectory that came with the advent of the New Archaeology in the 1960s, a conscious attempt was made to create a more systematic model for ethnographic analogy (Watson 1972; Stiles 1977). Some realised that many ethnographic accounts were not adequate for use in archaeology and the sub-discipline of ethnoarchaeology was developed (Stiles 1977: 87). The explicit aim of this sub-discipline is to make use of information gathered in the historical present to explain the archaeological finds and understand past lifeways (Stiles 1977: 88).

Over the years various criticisms have been levelled against the use of ethnography in archaeological interpretations (e.g. Gould 1980) and in the way ethnography is used to understand San art in particular (e.g. Solomon 1997, 1998, 2011a, b). These criticisms look at problems in the creation (and thus the reliability) of the ethnography (e.g. Clifford 1988) as well as its relevance to the archaeological record (Gould 1980). More recently the use of ethnographic analogy in archaeology has been derided as being essentialist and ahistorical (see Whitley forthcoming for further discussion).

Combating the problems of credibility, more self-aware methods have been investigated in anthropology (see Clifford 1988) but for many archaeologists, this comes too late. There are often very few (if any) ethnographic accounts that are relevant to specific fields of study, so that one cannot be choosy about which accounts to use. We need to be aware of the problems and be careful about making analogies based on simplistic correlations (Lewis-Williams 2001a: 150) across space and time, and instead critically examine the relevant ethnography and argue for its reliability and relevance.

An example of this controversy concerning the validity and authority of ethnographic studies is the Kalahari Revisionist Debate of the early 1990s (Kent 1992). The traditionalists argued that the influence of the interaction with Bantu-speaking agriculturalists was relatively shallow and has not entirely transformed San society or created a loss of cultural autonomy (Solway & Lee 1990). This is in contrast with the view of the revisionists that the Kalahari San have been locked in an intimate relationship with agro-pastoralists and later white settlers that has irrevocably changed the foundations of San society and culture (Wilmsen & Denbow 1990). The highlighting of such issues has generated a move towards a more critical use of ethnography.

When using this ethnography, it is important to understand analogical reasoning. This is the principal methodological apparatus by which an archaeologist benefits from ethnographic knowledge (Chang 1967). Analogical reasoning, as the name suggests, is based on analogies or similarities. But one needs to be careful of

simplistic deductions based on observed similarities especially when using ethnographic data far removed in time and space (e.g. Woodhouse 1969: 64). Despite problems, analogy is all we have if we want to produce data of any interpretive value. An inductive empiricist approach, trying to infer answers from supposedly objective data, is flawed (Chalmers 1978; Lewis-Williams 1990, 1995).

Taking these problems into account, I try to be critical in my application of ethnographic evidence to the archaeological record. I tack between the archaeological data and the ethnography to ascertain which sections of the ethnography are applicable and which are not (**III** Laue 2017; see also Whitelaw forthcoming).

3.2.2 Pan-San cognitive system

Two sources constitute most of the ethnographic evidence related to the San: the 19th century /Xam ethnography (e.g. Bleek & Lloyd 1911; Hollmann 2004; Bank 2006) and the 20th century work in the Kalahari (e.g. Mashall 1962, 1969; Lee 1979; Katz 1982; Bieseke 1993) (see Chapter 1). These sources are removed in space and time from each other and the art of the Groot Winterhoek Mountains and much of the rock art of the subcontinent.

Despite the ecological and linguistic differences, there are still many similar beliefs between these two ethnographic sources (e.g. Lewis-Williams & Bieseke 1978; Lewis-Williams 1981a, 1992). Many concepts seem to be “pan-Bushman or nearly so” (McCall 1970: 18; see also Guenther 1999: 33), and this had led to the coining of the phrase “pan-San cognitive system” (Lewis-Williams 1984: 227). A pan-San worldview does not mean that the beliefs, rituals and stories were all the same, but rather that there are core fundamentals to San culture which stretch across the subcontinent. Rock art research reinforces this idea in showing that the art across the subcontinent was essentially shamanistic (Lewis-Williams 1980, 1981 a & b, 1983; 1984, 1986a, 1998; Lewis-Williams & Dowson 1988, 1989; Lewis-Williams & Pearce 2004a; **III** Laue 2017; cf. Solomon 2011b). There is also evidence that at least some of these beliefs and ideas stretch far back in time (Lewis-Williams 1984).

Some have argued against the shamanistic explanation of southern African rock art, suggesting instead that the rock art images cover a wide range of topics and have many functions in San society. The problem is that the basis for this argument is a “covert analogy with Western image-making” (Lewis-Williams 1998: 88). The diversity of image use in Western society is assumed for San rock art with no argument as to why this is a valid assumption. There is no ethnographic evidence which would point to such diversity in the reason for image making amongst the San (Lewis-Williams 1998: 88; Lewis-Williams 2001b: 28).

In arguing for a conceptual unity for San rock art that spans both time and space Lewis-Williams (1984: 227; see also 1986a) proposed that “style should not be confused with meaning” when considering geographical differences within the art. In art from Zimbabwe to the Cape, he defined a series of motifs (appearing in isolation and combination) as suggestive of the applicability of ‘pan-San’ shamanic interpretations. These motifs included “distinctive dancing postures, nasal haemorrhaging, erect hair, dying postures, eared serpents, so-called infibulation and phosphenes” (Lewis-Williams 1984: 227). Subsequent to its formulation, the ‘pan-San’ shamanic framework has been successfully used to understand the meaning of specific localised imagery such as the formlings in Zimbabwe (Mguni 2005; 2015) and swift-tailed images in the southern Cape (Hollmann 2005a & b). This work has shown that although differences occur across the subcontinent, there is an underlying unity to the art (e.g. Deacon & Mazel 2010).

Despite the success of these interpretative frameworks, the overlooking of spatial and temporal diversity (Lewis-Williams & Dowson 1994: 207) means that regional differences have not always been investigated or even noted. As we have no means at present to date large sections of the art, the variation we see could either be synchronic, with different groups choosing to paint different images, or diachronic, and something that changes with the fashions of the time. For an ethnographic example see Bieseke (1993:67-70) where the giraffe medicine song spread rapidly through the Kalahari replacing the earlier gemsbok medicine song. However, problems with dating do not mean that examining regionality and its implications cannot uncover another layer of meaning in the art.

Another perceived drawback of the ‘pan-San’ model is that it tends to portray rock art as an ahistorical practice (Solomon 2006: 97; 2011b: 115). This is not a valid point; image production contextualised in a particular time period sees the firm integration of ‘shamanic’ frameworks within processes of historical change (e.g. Blundell 2004; Challis 2012). Given the difficulties of dating rock art directly, this has most often taken the form of iconographical contextualisation, relying on the depiction of livestock or material culture dated through archaeological or historical evidence.

Although I accept that there are sound reasons for looking at San rock art as a coherent whole underlain by a shamanic worldview, rock art is not ahistorical. The San were reacting to and took part in the changes that were taking place on the landscape with the influx of Bantu-speaking farmers and later the Europeans. The view of the settler is the focus of nearly all the historical documents. Archaeology, the only discipline that can give an account of life before the colonial period, should be used to provide the San with their own history (Mazel 1992). Dowson (1993) criticised Mazel’s (1992) work for ignoring rock art. Rock art can penetrate back through time and give a history that is more than just that understood by the debris the San left behind; rock art can speak to what people were thinking (Dowson 1993: 644). Heeding Dowson’s call, rock art researchers went to work to try to give the San an ‘insider history’. Nowhere can this be better seen than in the Drakensberg-Maloti Mountains (also called the south eastern mountains). Here we see the rise of the ‘big man’ or powerful shamans (Dowson 1994; Blundell 2004 but see Mullen for an alternative view of these images) as well as how amalgamated raider groups draw on San iconography as means of protection and possibly intercession in the spirit world (Mallen 2008; Challis 2012). Mixed groups, drawing on the political power associated with painted sites, knew about the making of the art and the power contained in the images; they reflected their changing worldview in the art they made (Mallen 2008; Hall & Mazel 2005: 151; see also Ouzman 2005). While this work still relies on contact elements, such as cattle or horses, being present in the art, it has been able through the use of multiple sources, to give a more inclusive history of the past (Smith 2010).

Does this mean that regions can only be defined if there are a series of historically-contingent and overlapping (spatially and temporally) ‘traditions’ or ‘communities of painters’ existing in the colonial period? Can we look at hunter-gatherer interaction in a world of only hunter-gatherers? In studying the rock art of the Groot Winterhoek Mountains, cognisance, if taken, of the idea of a ‘pan-San’ cognitive system; this is particularly true as the area surveyed lacks both direct dates and historically-circumscribed iconographic depictions. However, even without knowing specific dates and sequences it is still possible to investigate a rock art area and study similarities and differences to look at how it fits together with the art of the area and surrounding regions.

3.2.3 Style

Many rock art scholars use the word ‘style’ (e.g. Wade *et al.* 2011: 29; Wyndham 2011: 393; Gunn *et al.* 2012: 58; Hollmann 2013: 153; Orton 2013:33), with little or no attempt to provide a definition of what is meant by this term (cf. Layton 1992: 184; Francis 2001). While the problems with the use of the word are sometimes recognised (e.g. Boast 1997; Hampson *et al.* 2002:18; Solomon 2011a: 52) it is difficult to investigate regional difference in rock art without a consideration of style. Style theory is one way to investigate the reasons behind regional difference. Are the ‘stylistic’ differences intentional and part of a group marker or are the variations due to spatial and temporal factors?

Wiessner (1983, 1984, 1985) has developed ideas around what style transmits in a social context which has been critically examined by Sackett (1985). Wiessner (1983) proposes two concepts of style: *assertive* style, an individual style marker, and *emblemic* style, a group marker. Both these types of style are active. Sackett (1985) does not exclude this definition of style but argues that most stylistic variation (isochrestic variation) is passive. Although factors concerning emblematic style and isochrestic variation are the focus of this study, assertive style is seen in idiosyncratic rock paintings (Dowson 1988), imagery concerning pre-eminent shamans (Dowson 1994; Blundell 2004), and rain animals (Lewis-Williams & Pearce 2004b). In this work, style encompasses technique and manner of depiction. Both of these factors contribute to the ‘look’ of the painting.

3.2.4 Quantitative analysis

Quantitative analysis was carried out at 28 of the sites I studied. Appendices D–G contain tables with the attributes quantified. This study used some of the data, but all are provided here for comparative purposes for future regional studies.

Quantitative analysis enjoyed about ten years as a research tool in rock art studies, in South Africa, from the mid-1960s to the mid-1970s. Elsewhere, however, in Lesotho for example, it continued to be used even though it had been abandoned elsewhere (see Smits 1992). The introduction of this approach into southern African rock art research was a way of establishing the 'scientific credibility' of the discipline (Lewis-Williams & Dowson 1994: 203 see also Vinnicombe 1967: 141) based on the misperception that science was quantification. The approach mostly disappeared from southern African research in the mid-1970s as scholars realised that it would not lead to an understanding of the images. Researchers then turned their attention to ethnography to seek this understanding (Vinnicombe 1976; Lewis-Williams 1981a).

The publication of papers presented at a symposium on southern African rock art held during the Annual Conference of the South African Association for the Advancement of Science in 1969 (Schoonraad 1971) shows the popularity of the quantitative approach in the late 1960s. This publication marks one of the first times that southern African rock art is given a more scholarly footing on par with other areas of archaeological research. Most of the 23 papers included in the publication are descriptive, with four explicitly including quantitative data, with little or no attempt to understand the rock art or to use information gained from quantification to answer questions about the past. Even then the limitation of quantitative data was recognised, "The use of statistics may well solve some of the problems, but the quantitative approach, apart from being very time-consuming, has one serious shortcoming: statistics can give us a wealth of information on how things are, but they hardly ever tell us why things are the way they are." (Smits 1971: 18). This quote goes to the heart of the problem with quantitative analysis. As a descriptive tool, it is useful, but it cannot help answer crucial questions regarding reasons for creating the images. A classic example of this problem is Willcox's (1978b: 206) attempt to use

quantitative analysis "to seek light on the nature of the element, known to all students of South African rock art, which has been termed 'infibulation' or 'penis ornament'". He gives quantitative data, but it is not used to draw any conclusions. Instead, other lines of evidence, such as ethnography, are provided to shed light on what 'infibulation' could be. Another example is Vinnicombe (1976: 203–205) who includes large amounts of quantitative data but seldom refers to them when interpreting the art.

Many researchers seemed to be using quantitative data because it allowed them to undertake their "recording as objectively as possible" (Kuper 1993: 11), but as Lewis-Williams and Loubser (1986: 258) point out, "Quantification merely lends data a deceptive aura of objectivity". Quantification inevitably involves categorisation. Many categories included classes such as "dancing", "hunting" and "burial scene" (e.g. Vinnicombe 1967; Evans 1971; Pager 1971a; Woodhouse 1979). Each of these rather than being purely descriptive is an interpretation in itself and subjective. Other aspects quantified included total human figures and sex, weapons and equipment, mythological figures, antelope, other animals, spoor and bees nests and geometrics (e.g. Pager 1971a; Vinnicombe 1976; Lewis-Williams 1981a). Even these categories are open to interpretation. For example, without knowledge of ethnography, antelope with more than four limbs can be interpreted as either over painting or an attempt to fix a mistake (e.g. Smits 1971: 18) whereas San cosmology can better explain this phenomenon (Lewis-Williams & Dowson 1989: 79; Lewis-Williams & Blundell 1998: 96). These criticisms of quantitative analysis and more scholarly use of ethnographic data led many scholars of rock art to abandon the use of any form of quantitative data.

Since its demise, quantitative analysis has resurfaced in some studies (see, for example, Lenssen-Erz 1989; Hollmann 1993). Its seemingly marginal role in publications since the mid-1970s belies its value to rock art researchers; many arguments still rely on numerical studies, even if only implicitly (cf. Laue 2000; Challis 2005:11). Indeed, Yates *et al.* (1990:33) recognised the potential of quantitative analysis to help them "recognise the regional variation in the paintings". Despite its problems, when asking the right questions of the quantitative data, it can still prove

useful. Other branches of archaeology use quantitative data as a descriptive tool to answer specific research questions (e.g. Sievers 2006; Bradfield 2012; Reynard *et al.* 2014).

In this thesis I use quantitative analysis, realising that the technique is not a flawless, objective one but recognising its value as a descriptive tool for examining some differences in rock art by comparing quantitative data between different areas. To explore the more significant questions of what regional difference means regarding identity, knowledge exchange and movement of people on the landscape we need to be able to recognise the difference and investigate how finely we can differentiate regions. Quantitative analysis is an excellent tool for investigating one aspect of regional variation, subject matter. It is not just beneficial to consider the presence or absence of rock art motifs but also their frequency.

3.2.5 A *chaîne opératoire* approach

To come to any conclusions as to what regional difference in the art might mean, I first had to find a way to look at regional difference on the ground. As I outline in Chapter 4 (I Laue, submitted) regionality has been approached in one of two ways: 1. An investigation of stylistic difference (Burkitt 1928; Van Riet Lowe 1956; Rudner & Rudner 1970; Willcox 1984), or 2. An analysis of the distribution and presence/absence of motifs (Hampson *et al.* 2002; Hampson 2015). I argue that both these approaches are too simplistic. To understand regions, including their differences and extent, we must consider both manner of depiction and motif as well as factors such as landscape differences.

I propose a multi-pronged approach to look at what makes the art different in different regions. Ultimately these differences come down to differences in the practice of art-making. The method I use to investigate the various aspects of practice is a *chaîne opératoire* approach (see Stahl *et al.* 2008 for successful use of operational sequences in the examination of communities of practice among potters) (IV Laue in press). This approach was initially developed by Leroi-Gourhan (1964 in Shott 2003:96) as a means of looking at lithics from raw material procurement through all the stages until the artefact is discarded (Sellet 1993:106). Southern

African rock art researchers have not used this approach, but a look at the study of pottery production (e.g. Gosselain 1992) indicates avenues that may apply to rock art. Comparative investigations, in both the research area and other regions, can give insight into the art accompanying all stages of production and consumption. No longer is only the finished product the object of study, now all the actions leading to its manufacture can be investigated (Gosselain 1992: 559). This means that rather than examining vague notions of style or motif only, investigation of the component parts and different elements which compose the art is possible.

As originally envisioned, using the concept of a *chaîne opératoire* would require experimental archaeological work and each image interrogated separately. Although I think there is fruitful research to be done in this direction, this is not what I am proposing. I instead use the idea of the *chaîne opératoire* to break down the general process that goes into making the art. By focusing on the whole life of an site from how the maker learned to create art to the consumption of the image gives us another way of looking at differences between regions including whether the difference is due to cultural or non-cultural constraints. Below are some of the factors to be considered along this chain of production.

Learning to make art

Although we have no direct accounts as to how individuals learned to make the art, investigating the ethnographic data can give some indication of how learning takes place in recent San societies (e.g. Katz 1982: 118-140). The assumption is ritual specialists made the art. Hence, I focus on how ritual specialists learn their skills and how concepts of the spirit world are passed on (e.g. Bieseke 1993: 46-47).

Pigment procurement and the making of the pigment

Historical evidence (How 1962) gives us information as to the importance of the type of pigment used in painting production. Recent work on possible procurement strategies in the Western Cape indicates that there was “careful selection and sourcing of a very limited colour range” (Hahndiek 2014: 207). Implied in this is the idea that people would travel quite some distance to find the ochre that suited their purpose. The analysis of the pigment is still in its infancy in southern Africa (Escott 2011; Bonneau *et al.* 2012; Hahndiek 2014) and as yet there is no way to tie ochre

from painted images directly to a source. In time area-specific analysis of the rock art pigments used could indicate that the colour differences seen in different regions are due to geological differences rather than procurement strategies and the pigment production, the relative lack of data for comparative purposes means I do not consider this aspect of the *chaîne opératoire*. This might be a productive avenue of research in future studies of regionality.

Shelter type

The geology of the shelter as well as the culture in which the painting occurred influence the size and the extent of a painted surface. Here I briefly consider the geological similarities and differences between the areas under consideration and how this influences the ‘look’ of the art.

Surface preparation

Indications are that, at least in some cases, surface preparation occurred before painting (Hall *et al.* 2007; Bonneau *et al.* 2012:288). Although natural factors cannot be ruled out one possible explanation is that the painters were preparing the surfaces. Differences in surface preparation lead to differences in the visual impact of the art.

Subject choice

Qualitative and quantitative data (Appendices D–G) are used to look at subject choice. There are differences in frequency of motifs in different areas (e.g. Hollmann 1993; Laue 1999; **III** Laue 2017). Exploring the presence or absence of specific motifs can be due to cultural or environmental constraints and an indicator of regional difference (Hampson *et al.* 2002; Hampson 2015). For example, springbok are unlikely to be painted in an area where they did not occur. If painted outside their habitat, this could be taken to indicate movement of people (e.g. Ouzman & Wadley 1997: 392-3). If not painted in an area in which they occur, then there might be a culturally specific prohibition against painting them.

How the subject is painted (style)

Formal analysis, a study of the general rules of picture making, allows an examination of the decisions made by the artist (e.g. Clegg 1987; Smith 1998). Cultural choices in image-making can also be examined in the composition of the panel, superpositioning and the relationship of the image to the rock surface (see Taçon &

Chippindale 1998: 7-8). In choosing elements, it is impossible to entirely do away with the 'intuitive evaluation of the elements present' (Schaafsma 1994: 3) even when taken to the extreme and each category has so many attributes that it makes its application unwieldy (see Roaf 1978).

Consumption

The consumption of the art after painting is the final stage in the *chaîne opératoire*. Smudging and touching and superpositioning indicate possible uses of the art (e.g. Jolly 1986; Lewis-Williams 1986b; Lewis-Williams 1994; Lewis-Williams 1995; Blundell 2004). Ethnographic records can also inform as to how the rock art may have been used, such as the way stories of the trance dance function in contemporary San society (e.g. Bieseke 1983).

3.3 CONCLUSION

My methods constitute a multi-stranded approach to the question of regionality in rock art. Breaking the features of the art down into different categories provides a more rigorous way for investigating regionality and thus provides a better platform to probe why differences occur.

CHAPTER FOUR:

RECOGNISING REGIONALITY

Laue, G.B. Regionality in southern African rock art: definition, identification, and meaning

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REGIONALITY IN SOUTHERN AFRICAN ROCK ART: DEFINITION, IDENTIFICATION, AND MEANING

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ABSTRACT

Studies of regional difference in southern African rock art date back to the beginnings of archaeology on the subcontinent, but as interpretive approaches replaced older cultural-historical modes of investigation, regionalism largely fell away. In the past fifteen years, a renewed interest in rock art regions has emerged. This paper lays out some of the problems associated with studies of regional difference and posits a way forward for how best to think of such areas. I consider how regions can be recognised; how and why they formed; and what we might infer from them. I argue that regions cannot be defined using only one aspect of the art, such as style or motif. Instead, we need to move forward with a more integrated framework that considers image production in its social and technical contexts. Rather than asking the question ‘what is a region?’ we should be asking ‘what are the mechanisms through which difference in the art comes about?’ Regions do not point to ethnic or language divisions but are instead a function of communities of, as well as, larger constellations of practice.

Les études sur les différences régionales dans l'art rupestre d'Afrique australe remontent aux débuts de l'archéologie sur le sous-continent, mais à mesure que les approches interprétatives remplaçaient les anciens modes d'investigation historico-culturels, la régionalisation s'est largement effondrée. Au cours des quinze dernières années, un regain d'intérêt pour les régions d'art rupestre a émergé. Cet article expose quelques-uns des problèmes associés aux études sur les différences régionales et propose une voie à suivre pour mieux réfléchir à ces domaines. Je considère comment les régions peuvent être reconnues ; comment et pourquoi elles se sont formées ; et ce que nous pourrions déduire d'elles. Je soutiens que les régions ne peuvent pas être définies en utilisant seulement un aspect de l'art, tel que le style ou le motif. Au lieu de cela, nous devons avancer avec un cadre plus intégré qui considère la production d'images dans ses contextes sociaux et techniques. Plutôt que de poser la question « qu'est-ce qu'une région ? », nous devrions nous demander « quels sont les mécanismes à l'origine de la différence dans l'art ? ». Les régions ne désignent pas les divisions ethniques ou linguistiques mais sont fonctions de communautés, et ainsi que, de plus grandes constellations de pratique.

Keywords: rock art; regions; regionality; communities of practice; *chaîne opératoire*; southern Africa

INTRODUCTION

Archaeologists use fragmentary remains to understand past societies. A widespread practice is to look for patterns in these remains and to infer significance from them (Dietler & Herbich 1998: 233). This process is standard across many sub-fields in the discipline, including lithic, pottery, and rock art analysis. There are, of course, many problems with constructing typologies. For one, the criteria by which patterns are defined are those of the observer, not necessarily the makers of the archaeological objects. Far more problematic is the common issue of making naïve inferences about the nature of the past based on those patterns. One common tendency is to make simplistic correlations between material culture and cultural identity. As has been pointed out for Iron Age archaeology, however, pots do not equal people (Stahl 2009: 249; Cruz 2011; see also Hall 1984). Similarly, picture-regions do not necessarily equate to cultures. Assuming that the patterns observed by archaeologists have some validity then, how are we to understand what those patterns mean? Specifically, how do we recognise differences in patterns across space and through

time? In this paper, I consider these questions in relation to southern African rock art.

While I do not claim to answer the questions completely, I argue that the understanding of patterns in the rock art of the subcontinent raises important questions about regions and how we understand them. Moreover, understanding rock art regions is essential for considering diversity in southern African rock art. While research over the last four decades has emphatically established the symbolic and religious nature of much of the art over widespread regions, questions remain about how regional expressions of those religious and symbolic ideas played out across space and through time. I consider four fundamental questions:

- (1) Why would we want to recognise regions?
- (2) How do we identify a region?
- (3) How do such regions come about?
- (4) What do such regions mean if we can distinguish them?

I consider these questions in relation to the San fine-line rock paintings of southern Africa only. Both terms, San and Bushman, have carried pejorative connotations in the past. I use the term San but reject any negative associations the word may have. I also note that the ethnographically described San hunter-gatherers are not Stone Age relics and there are problems with projecting these names far back in time (see Gordon 1984; Pargeter et al. 2016). The paintings are studied as they are better researched than the engravings and other types of paintings, such as finger-paintings, common to parts of southern Africa. Ethnographic and rock art research point to similar belief systems and similar interpretative frameworks for the fine-line art across the subcontinent (Lewis-Williams & Bieseke 1978; Lewis-Williams 1992a), as well as consistency in meaning through time (Lewis-Williams 1984).

REGIONAL STUDIES IN SOUTHERN AFRICA

From the beginnings of professional archaeology in South Africa, changes through time were of concern. Goodwin and van Riet Lowe (1929) laid out the sequence of the southern African Stone Age, dividing it into Early, Middle, and Later Stone Age.

As more excavations took place and dating became widespread, interest grew in differences across space rather than just through time. Much of this work looked at stone tool industries and their spatial distribution across the subcontinent, but with little consideration of the spatial differences on a smaller scale. Broad spatial differences were explained as linguistic differences (e.g. Deacon 1976: 170) or as a product of diffusion (e.g. Deacon 1976: 162; Humphreys & Thackeray 1983: 289). From the late 1960s onwards, archaeologists began to engage more thoroughly with the ethnography to investigate the spatial differences they saw in the archaeological record. Much of this ethnographically-informed work came under the guise of an ecological paradigm exploring ideas around seasonal mobility (e.g. Parkington 1972; Cable 1984) and/or resource distribution (Mazel & Parkington 1981; Manhire 1987). The mid-1980s saw a move towards social explanations for difference, such as aggregation and dispersal (e.g. Wadley 1987) or evidence for the transmission of stylistic information as a marker of identity in stone tools or pottery motifs (Hall 1990; Sampson 1988). However, the study that most significantly looked at regions and what these mean was carried out by Mazel (1989a).

Mazel (1989a, b; 1993) identified three (possibly four) social regions for hunter-gatherers in the Tugela basin between 4000 and 2000 years ago. He recognised these regions by looking at differences, for example, in the distribution of ostrich eggshell, scrapers, and backed blades. He argued that these regions represent the extent of exchange networks. Changes in the distribution of artefacts from about 2000 years ago suggest a disruption of these networks due to social changes brought about by Early Iron Age agriculturalists settling in the region. Mazel (1989a, b) concludes with a call for more detailed studies of this nature but, unfortunately, this plea was not taken up in earnest. There have been no recent excavation projects looking at spatial differences to understand regions in other parts of the subcontinent.

Mazel (1982), working in the Kwazulu-Natal Drakensberg, was also interested in the distinct distributional patterns of specific rock art motifs in the Drakensberg. The distributional differences show images of bees, ladders, and sheep in the north and images of domestic animals and historical scenes in the south. Mazel (1982) relates these differences to people's disparate environments. He hypothesises that the

distribution of bee paintings in the northern Drakensberg was due to it being a better area for bees and thus the painters would have had more opportunities to interact with bees. Similarly, he argues that the prevalence of historical scenes and domestic animals in the south was due to historical factors. By the time Europeans arrived in the greater KwaZulu-Natal area, there were still San in the south, but they were no longer living in the north. Differing geology between north and south resulted in contrasting valley patterns which, according to Mazel (1982: 80), played a role in the distribution of images and settlement patterns and affected the level of interaction between bands. These factors explain the underlying distribution, but not the meaning of the paintings or why the artists chose to paint those specific images; for that we need to look to ethnography (Mazel 1982). Mazel recognises that various factors affect the distribution of painted themes “historical, ecological, physiographical, and concerning some ritual paintings, stylistic and cultural” (1982: 80).

Before Mazel, van Riet Lowe was also interested in rock art as an indicator of regional variation, not just with lithic variability. In 1941 (updated and republished in 1956; see also Malan 1965) he produced the first comprehensive survey of rock art and separated painted and engraved areas as well as specific regions within the painted record. Based on the records of over 1500 painted sites (Van Riet Lowe 1956: 6) he recognised 5 distinct groups of paintings: (1) the North-Eastern Group that covers much of the Limpopo and Mpumalanga provinces of South Africa, (2) the South-Eastern Group made up of the paintings in Lesotho and the areas in South Africa surrounding it, (3) the Southern Group, extending from Port Elizabeth in the east to Van Rynsdorp in the west, (4) the Western Group in Namibia, and (5) the Central Group which covers the few painted sites found in the central interior of the country (Current names of countries, provinces and towns are used rather than those stated in the original text, for example, Basutoland is now Lesotho, Rhodesia is now Zimbabwe, and South West Africa is now Namibia). Van Riet Lowe emphasised that “there is by no means any hard and fast line or boundary between any of the five areas described” but that “the broad distinctions that have been drawn stand out significantly clearly to justify the groupings” (van Riet Lowe 1956: 9). While the most comprehensive, van Riet Lowe was not the first person to look at rock art regions.

In 1927, the Cambridge Prehistorian, Miles Burkitt, toured archaeological sites around southern Africa (Schlanger 2003: 6). His subsequent book, published in 1928, formed the foundation for much of the research into rock art regions that followed. He noted that different styles of rock art exist and he related them to different Stone Age industries (Burkitt 1928: 111). He divided the paintings into three major areas: Zimbabwe, a central group concentrated around the Drakensberg in South Africa, and a southern group extending along the Cape coastal belt from Grahamstown to Cape Town. In comparing the southern group to the central group, he writes “[h]ere the rock-shelter art proved to be of such a completely different nature from anything we had before seen that I have ventured to class it as a third group” (Burkitt 1928: 152). He associated this group with the Wilton stone tool industry and the Central Group with the Smithfield stone tool culture (Burkitt 1928: 142, 152).

The Rudners’ (1970) followed Burkitt in attributing the different regions of rock art to either the Wilton or the Smithfield cultures. They assigned the seemingly more naturalistic paintings of the Drakensberg and surrounding areas to the Smithfield culture. They called this the Dynamic School of art and noted that “they emphasise movement... attempted complicated perspectives and finally succeeded in giving the pictures a three-dimensional effect by shading the colours” (Rudner & Rudner 1970: 179). This is contrasted with the more stylised paintings of Zimbabwe, Namibia and the south-western Cape of South Africa, which they call the Formal School and associate with the Wilton stone tool industry. The Rudners’ (1970: 180) state that the Smithfield and Wilton people met in the Eastern Cape and they postulate two explanations for the Drakensberg art: either the Wilton people were the only artists and the Smithfield people were inspired by them to start their own artistic tradition, or the Smithfield people were initially engravers who became painters in the north-eastern Cape and Drakensberg.

Willcox (1963: 40) also followed Burkitt in dividing the painted rock art in South Africa into three major regions: Region 1, mostly the Limpopo Province and showing affinities to the art in Zimbabwe, Region 2 which covers Lesotho and the surrounding Drakensberg mountains, and Region 3 which extends from Namibia down to Cape Town and along the southern Cape coast. Although Willcox associates

the art of Region 3 with the Wilton Culture, he seems loathe to differentiate this from the Smithfield Culture, “it would be more realistic to postulate one culture to which all paintings and probably all petroglyphs, and of course all the stone implement industries associated with them, could be assigned” (Willcox 1963: 9). Willcox (1984) later expanded on his previous work and divided the whole subcontinent into five painted regions. In this later work, Namibia is now seen as a region to itself and separated from the Western/southern Cape region and the Northern Cape of South Africa is added. Interestingly, Willcox now uses the terms “Wilton man and Smithfield man” (1984: 129) and seems to accept the distinction between Smithfield paintings in the Maloti-Drakensberg area and Wilton art in other parts of the subcontinent, specifically the western and southern Cape (1984: 189).

By the time Willcox published his book, *The Rock Art of Africa*, in 1984, the emphasis in rock art research was changing, and research into regionality was losing its prominence. Regional rock art investigations were of considerable importance to southern African rock art enthusiasts up until the 1970s (Burkitt 1928, 1929; van Riet Lowe 1941, 1956; Willcox 1963; Malan 1965; Rudner & Rudner 1970). The art was assumed to depict everyday life during much of that period and meaning was not the primary concern for research. The lack of interest in meaning meant that researchers expended their energy on dividing the subcontinent into rock art regions based, for the most part, on stylistic difference.

As with much archaeological research conducted pre-1960 in southern Africa, a culture-historical model dominated these studies (see Cummings 2011: 33). The distinction between the Wilton and Smithfield peoples relied on the correlation of lithic typologies to cultures. The rock art was largely woven into this model. Differences between these lithic industries are no longer thought to be as clear-cut, and now the Smithfield is classified as part of the Wilton (see Lombard et al. 2012). The New Archaeology of the 1960s and 1970s laid the basis for a more thorough study of regional difference with the introduction of new techniques such as quantitative analysis (Anschuetz et al. 2001), which influenced South African archaeologists. Following Vinnicombe (1967), some researchers moved to attach lists of quantitative data to their studies (Maggs 1967; Lewis-Williams 1981a; Rudner &

Rudner 1970). These were often attached to publications with little or no attempt to go beyond pointing out differences (but see Lewis-Williams 1972, 1974 who attempted to find meaning in these patterns).

With the advent of the interpretative approach in rock art studies in the late 1970s (e.g. Vinnicombe 1976; Lewis-Williams 1977, 1980, 1981a, b), rock art research headed in a new direction, and regional difference was seldom considered. Interest in regional variability was seen as old-fashioned and tied up with problematic cultural-historical approaches (see Cummings 2011: 34) and arguments for differences declined among rock art scholars. Solomon (2011a: 114) notes the lack of regional investigation in southern African rock art studies and blames it on the increased interest in the shamanic interpretation of the art. However, it is not, as she argues, that using the shamanic model effectively rules out an investigation into difference. Instead, the shamanic interpretation is a model based on ethnographic and historical sources which has by analogy facilitated an understanding of the art in spatially separated areas. The successful application of this model to areas of art where there is a more direct relationship with the ethnography (e.g. Lewis-Williams 1981a) has implications for the art in other areas where the shamanic nature of the imagery may not be as apparent (e.g. Mguni 2015). All the art is a “product of the same worldview and thus different but interrelated expressions of the same thing” (Whitelaw forthcoming), but this does not exclude difference. Research has shown that although the art has shamanism as its basis, this is expressed in different ways across the subcontinent (e.g. Hollmann 2005a; Laue 2017). It is personal research interests that have led to the paucity of regional studies rather than flaws in the model itself. The shamanic model opened up exciting doors for understanding the meaning of the art, which many students were keen to explore.

More recently, there has been considerable work looking at regional and locally-specific traditions (e.g. Loubser & Laurens 1994; Blundell 2004; Mguni 2005; Hollmann 2005a; Mallen 2008; Pearce 2009), but few of these papers have looked explicitly at regionality, how to identify regions, and what they may mean (cf. Laue 1999, 2016; Hampson et al. 2002; Eastwood et al. 2010; Hampson 2015). This scholarship accepts that we cannot just ‘read off’ the archaeological record in a

simple way; similar styles do not necessarily relate to a group of people or even archaeological region. However, even with this being the case, there is often a tacit assumption that material culture represents a region or a subsistence practice (Cummings 2011: 34).

Recently scholars have revisited questions around regional difference in southern African rock art. Yates et al. (1990: 33) suggest using quantitative analysis to define regions in rock art. Their approach is taken up by Hollmann (1993) and Laue (1999). In both cases, the quantitative data collected by earlier researchers (in this case Maggs 1967; Pager 1971; Lewis-Williams 1972, 1981a; Vinnicombe 1976) constrained these studies. In both cases, there were differences in quantitative data, but there was no real attempt to understand what these differences might mean and how they could contribute to a broader understanding of regionality. Hampson et al. (2002) point out that regions may differ depending on the criteria used and that ‘style regions’ and ‘motif regions’ may not coincide. They look at only motif, concluding that it is “thus unwise to combine style and content in the delineation of regions: they are two different things” (Hampson et al. 2002: 17). Hampson (2015) furthers this line of reasoning and recommends looking at motifs in different regions as widely distributed, regional or rare. Another approach (Deacon & Mazel 2010) has been to compare the motifs from two spatially-separated areas. The problem with all these approaches is that many motifs are widespread across the subcontinent (Lewis-Williams 1984: 227; see also Guenther 1999: 33) and it is often the manner of depiction or style that differentiates them. An example is the eland, which is widespread in both the Cederberg and the Maloti-Drakensberg, but the manner of depiction in the two areas differs substantially.

Some rock art features are seen on a subcontinental scale, while others are regional or at least have a regional emphasis (Smith 2006a, b). Smith (2006a: 93) sees this difference as a result of gradual change through space, but the empirical data does not hold up to scrutiny. Smith (2006a: 84) claims that the dominance of male figures in the art steadily decreases from the Drakensberg to the Limpopo flats where woman outnumber men but provides no quantitative data to back up these claims. The Limpopo Province has more images of women (Eastwood & Eastwood 2006)

compared to that of the Drakensberg (e.g. Vinnicombe 1976: 363), but there is little research from the intervening areas. Work in the Waterberg (Laue 2000) provided no quantitative data, but my impression is that in this area female figures still form a minority of the images with sexual characteristics. Quantitative data does give some evidence for progressive change (e.g. Laue 1999), but there is also evidence for more apparent breaks in manner of depiction and motif. An example is the rock art of the Groot Winterhoek Mountains, which lie almost equidistant between the Cederberg and the Drakensberg, yet share many more similarities with the Cederberg (Laue 2017).

With more work in diverse areas of the subcontinent, it has become increasingly evident that there are no real gaps between these so-called “regions”. The lack of distinct rock art gaps means that identifying specific regions is a difficult, if not impossible task.

WHY REGIONS MATTER

A study of San ethnography from the 19th century records in the Drakensberg (Orpen 1874) and Northern Cape (Bleek & Lloyd 1911), and the 20th century work in the Kalahari (e.g. Marshall 1969; Katz 1982; Bieseke 1993) shows remarkable similarities between the two (e.g. Lewis-Williams & Bieseke 1978; Lewis-Williams 1981a, 1992a), notwithstanding ecological and linguistic differences. This work points to a core structure at the base of San religious beliefs (Barnard 1992: 298, 301–2). That these core fundamentals exist, led to the coining of the phrase “pan-San cognitive system” (Lewis-Williams 1984: 227; see also McCall 1970: 18; Guenther 1999: 33) and an understanding of the shamanic nature of the San rock art across the subcontinent (Lewis-Williams 1981a; Yates et al. 1985; Lewis-Williams & Pearce 2004; Mguni 2015; Laue 2017).

Rock art is not ahistorical, but it has been advantageous to investigate rock art ahistorically. Unfortunately, the success of the shamanic interpretative framework has led to an overlooking of spatial and temporal diversity. However, there is nothing inherent in the shamanic framework that precludes the investigation of difference in the art. Indeed, where there is contextual information regarding the production of

the art, processes of historical change have been investigated (e.g. Blundell 2004; Challis 2012). Even without dates and historically-circumscribed images, it is possible to look at difference between areas. Culture is a system of meanings and beliefs shared by a group of people. Symbols can share information about social status and cosmology through settlement organisation, ritual and decorative art style (Evers 1988). Now that there is a good understanding of the meaning of the art, we need to move away from the tendency to homogenise the rock art. Studying regionality can help us to define and understand the differences we see.

Even when there is no homogenising of the art and scholars are looking at idiosyncrasies, regionality forms a tacit or unacknowledged premise on which to base the discussion of unique or limited images. It is not the idea of regionality that is at fault, but instead the way much archaeological research has been undertaken. Regional analysis is a term borrowed from geography and initially involved quantitative methods and graphical methods (Kantner 2008: 42). In archaeology, regionality is concerned with relationships between people over space and how these relationships are expressed materially (Kantner 2008: 41). Regional analysis contrasts with smaller site-scale studies, although these, of course, are important for larger analysis. However, as Jones (1997: 137) points out:

most archaeological research still takes place within an already established framework of bounded, socio-cultural entities, which are assumed to correlate with past social or ethnic entities, whether or not this correlation is explicitly acknowledged.

This ‘fiction of cultures as discrete, object-like phenomena occupying discrete spaces’ relies on an often tacit assumption that there is an unambiguous link between place and identity (Gupta & Ferguson 1992: 7). This unacknowledged assumption is potentially problematic. It means that there is no consideration given to scale or regional definition. Often rather than defining regions directly, fieldwork areas rely on political or geographic boundaries or financial constraints (Kantner 2008: 41). This lack of definition means that there is also no consideration of the scale of the region. Some regions might form in relation to exchange partners, while others could

be based on kinship groups or have to do with origins and mythologies (Cummings 2011: 38). The explicit study of regions forces us to confront these problems.

Problems involved in dating southern African rock art mean that scholars have rarely linked it to other aspects of material culture. Although regionality has seldom been the explicit focus of LSA studies (but see Mazel 1989a; Sampson 1988), there are regional aspects to much of the research. For example, Hall (1990) posits that Stone Age peoples in the mid to late Holocene (5000–1000 BP) were using silcretes as stylistic markers for their stone artefacts. He argues that the social identity communicated by the use of raw material corresponds to a geographic identity in the eastern extension of the Cape Fold Belt, southern Cape, South Africa (Hall 1990: 178). Another example from the southern Cape involves Sealy's (2006; see also Sealy & Pfeiffer 2000) isotopic work on human remains from the late Holocene. Two populations, less than 14 km apart, show very different isotopic signatures: one indicating a diet rich in marine foods with the other eating a more terrestrial diet. The argument is that these two populations would have lived in "clearly demarcated, mutually exclusive territories" (Sealy 2006: 569). In both these cases, the surrounding rock art, also argued to be mid- to late-Holocene in date (Laue 2017: 147), could complement these studies if there is greater knowledge of rock art regionality. By testing the conclusions drawn from excavated or isotopic studies, using rock art, and either confirming or subverting the arguments made would mean a more multi-stranded approach and make for more forceful conclusions regarding past lifeways.

Lastly, ethnographic evidence shows that San peoples arranged themselves into regions or territories and there is no reason to suppose this was not the case in the past. By teasing out regional manifestations in rock art, we can begin to understand how people organised and structured themselves in the past. This is possibly the most important reason to study regionality as it is a way of gaining insight into past social and geographical dynamics; information which cannot be gleaned from picking and choosing select imagery to make interpretations about the meaning of the imagery (cf. Sundstrom 1996)

TOWARDS RECOGNISING A ROCK ART REGION

The investigation of regionality in rock art presents a number of problems. First I outline the practical obstacles of chronology, scale, and geology. I then discuss the problems with using style or motif-only in regional analyses. Last, I suggest that the way to overcome these difficulties and move forward is to use the concept of the *chaîne opératoire* as a framework to describe regional differences.

Chronology, scale, and geology

There are claims that the investigation of regional difference needs an accurate chronology (e.g. Kantner 2008: 46), but very few dates are available for southern African rock (Mazel & Watchman 1997, 2003; Mazel 2009a, b; Bonneau, Brock et al. 2011; Bonneau, Peace et al. 2017; Bonneau, Staff et al. 2017; for relative dating see Russell 2000; Mazel 2009a; Challis 2012; Flett & Letley 2013). Does this mean that southern African rock art cannot inform on regional difference? These differences may be synchronic, diachronic, or a mixture of both, but this difficulty is not insurmountable. Within a continuously evolving practice, changes accrue incrementally and with respect to pre-existing norms and material manifestations; the recognition of distributional patterning across the subcontinent, whether variability is temporal or spatial in origin is in some measure irrelevant, except where there is positive evidence for a break and/or the introduction of a new art type into the area (see Smith & Ouzman 2004).

The problem of scale affects all regional analysis not just those studies without a tight chronological sequence. There are many different scales from continent-wide, to a drainage system, to a single site (Kantner 2008: 41). Investigations into regional difference can be undertaken on one of three scales, a macroscale, mesoscale and microscale (Mills et al. 2013). In the context of southern African rock art, the macroscale is the continent-wide differences we see in rock art. There is a clear difference between the hunter-gatherer representational art south of the Zambezi and the geometric art farther north (Smith 2006a: 97–99). The microscale is the much smaller regional differences, maybe even differences between sites, which might become more apparent once dating of rock art in South Africa becomes more widespread. I am interested in the mesoscale. These are the broader geographic

differences such as the difference between the art of the Cederberg versus that of the Maloti-Drakensberg.

The investigation of different regional scales depends on the region's conceptualisation. Often regions, when they are defined, are seen as bounded by specific geographical features, but this assumes that people of the past would see the landscape in the same way (Kantner 2008: 42; Smith & Blundell 2004: 249). The space (region) is now the sampling unit as opposed to artefact clusters (sites) (Lewarch & O'Brien 1981: 324). But even site boundaries, like regions, are often difficult to define (Kantner 2008: 44). Rock paintings in southern Africa occur in shelters which can be defined as a site as they are seemingly bounded but even here we are making assumptions about how people in the past viewed the world (Smith & Blundell 2004: 249).

The meaning of the word 'site' is seldom questioned; it is the place where artefacts are found. However, distinguishing a site and its boundaries is an archaeological decision, artefact density, or in the case of painted sites, the extent of the paintings plays a role (Dunnell & Darcey 1983: 271), but there is a strong probability for the use of areas beyond those seen by archaeologists. Some regional studies have cast doubts on the utility of the word 'site', as often sites only represent the loci of activity from which the exploitation of the surrounding areas took place (Dunnell & Darcey 1983: 271). We are forced to work out connections from "grossly incomplete, complex, multifunctional deposits called sites" (Dunnell & Darcey 1983: 272). The uncritical use of the word site means that it is difficult to look at variation and biases in the published record. There is favouritism towards what we know from high-density clusters of artefacts (often defined as sites) and in the case of rock art, from densely painted sites. Ultimately regional investigations should demand that the content of inter-site spaces be documented to look at exploitation patterns (Dunnell & Darcey 1983: 272), but this is not always practical or useful when investigating broader mesoscales.

Human 'choices' and factors are not the only things that affect how the art 'looks' in different areas. Geology also plays a role (Rainsbury 2009: 8); different areas have

different rock types which affect the 'look' of the art. Geology also affects preservation. In places where the art does not last as long, there might be a lack of paintings, giving the impression of an area without art when it is only due to weathering. "Both techniques and rock surfaces have influenced motif forms" in Wardaman Aboriginal country in Australia (David et al. 1999: 16). The acknowledgement of geological differences is necessary for any study into regional difference.

Investigations into regionality in southern African rock art have seldom tried to deal with these practical problems of regional research and have instead concentrated principally on the images. Broadly these investigations fall into two camps: a study of differences in style (Burkitt 1928; van Riet Lowe 1956; Rudner & Rudner 1970; Willcox 1984) or a study of difference based on motif (Hampson *et al.* 2002; Hampson 2015).

Style and motif

Style is a tricky word to define. With few exceptions (e.g. Layton 1992: 184-5; Francis 2001) 'style' seems to be used as a catch-all term to cover all aspects of rock art without the authors defining their meaning. Some sidestep the issue by pointing out the complexities of style and saying that a definition that covers all aspects of rock art is "unrealistic" (Solomon 2011b: 52), while others argue that we should "abandon the style concept altogether" (Boast 1997) or "quite consciously exclude style from our criteria" (Hampson *et al.* 2002: 18).

The fuzziness of the concept of 'style', a central problem in much rock art research worldwide, is also an issue in many other sub-disciplines within archaeology. While 'style' is problematized in a small body of literature (e.g. Sackett 1977; Conkey & Hastorf 1990; Boast 1997) for the majority of archaeologists it is either a concept that has become naturalised in their discourse (e.g. Nakazawa 2010; Couzens & Sadr 2010) or a term that has been replaced by other terms such as typology (eg. Wadley 1989; Thackeray 1989 versus Cochrane 2008; Wurz 2013). However, even with all these problems, style "is involved in our analysis whether we acknowledge it or not" (Conkey & Hastof 1990: 1). With the many definitions of style such as "the formal

qualities of a work of art” (Layton 1981: 134) or “constant elements, quality and expression of an individual or group” (Shapiro 1953: 87), it is not easy to come to a robust way of describing difference in rock art. I rather use Hodder’s simpler definition that style is “a way of doing” (Hodder 1990: 45; see also Lesure 2005: 241 and for a southern African perspective, Pinto 2016: 258).

Style, rather than residing in the patterns, is a result of choices made or ‘ways of doing’ at all the different stages of ‘operational sequence of production’ (Dietler & Herbich 1989: 157). To look for ‘style’, one needs to examine the “process of learning, interaction, and innovation” (Dietler & Herbich 1989: 160). Through time, the unconscious internalisation, along with the standard operational sequence, including some limits on what is acceptable regarding variation, is likely. Like the Luo potters (Dietler & Herbich 1989: 157), it is likely the painters made their stylistic differentiations on the “basis of a sort of intuitive multi-variate analysis” rather than as deliberate markers to differentiate them from other groups. The making of art and the finished product are not merely the result of cultural expectations. There is a recursive relationship between the images and the artists (see Hodder 2011). What the artist has seen, painted before and sees in the shelter will all effect on the ‘look’ of the end product.

Because of the many problems defining style, some authors recommended excluding ‘style’ from their investigations in favour of looking only at the presence or absence of motifs (Hampson et al. 2002: 17; see also Hampson 2010: 6) or defining style on the basis of content of the art rather than aesthetics (Hampson 2010: 6). Here one problem is substituted for another. Of course, the presence and absence of motifs is one aspect of regional difference but it is not the only one.

There are problems with this approach. First, the problem with motif-only studies (Hampson et al. 2002; Hampson 2015), is the considerable overlap between motifs. Hampson (2015: 90) recognises that regional motifs are sometimes found in other regions but at a lower frequency, but does not provide any quantitative data on which we can test these assumptions. In the case of San art, the same motifs are often chosen in areas thousands of kilometres apart, since the basis of the art is the same

pan-San cognitive system (e.g. Laue 2017). However, motifs with distinct regional distributions do not always have the same area coverage: examples are the swift-people (limited distribution in the southern Cape) (Hollmann 2005a, b) or handprints, which have a far wider distribution across most of the southern Cape and are also seen in the Limpopo Province but are absent from the Maloti-Drakensberg. The second problem is that by predefining a regional motif to look at regional difference, one creates a circular argument. A decision that shaded polychrome eland are a regional motif, by mapping the distribution of this motif, one will find a 'region'. If the 'thin red line' imagery (Lewis-Williams et al. 2000) is mapped, a different, but overlapping, 'region' will become apparent. In both these cases, this is image distribution, not regionality.

Binary approaches to motifs (i.e. presence/absence) do not take into account how the manner of depiction affects analytical efficacy. Only one 'way of doing' amongst many is considered; the choice of what to paint. Again, I suggest the use of Hodder's (1990: 45) term "a way of doing", which covers both style and motif. The definition of a rock art region is always in contrast to the art in another area. Regional difference comes down to variation in 'how things are done' in two or more areas. While investigating differences in 'ways of doing', factors, affect what we are seeing in the art such as change through time, the scale we are considering, and the geology of the area also need to be taken into account.

A way forward: a chaîne opératoire approach

To overcome the style vs motif debate as to the best way to look at rock art, I propose that we should instead investigate difference as differences in 'ways of doing'. Many factors may be of influence including ethnicity, memory, gender, language, geology, climate, religion, social practices and more (Rainsbury 2009: 2). By approaching the images in different areas with questions about the whole chain of production, from the decision of where to paint to the use of the images, we can start to tease out where there are differences. This more holistic approach looks at all aspects of the art from its initial conception to its consumption.

This approach is based on the concept of a *chaîne opératoire* developed by Leroi-Gourhan (1964). The production of material culture can be seen as sequences of applied techniques or “the manipulation of conventional techniques by means of habitual, learned gestures” (White 1997: 94). Regional variation is due to difference in the underlying production systems, which is often called ‘style’ (White 1997: 94). The concept of the *chaîne opératoire* has been expanded beyond simple technical systems to include broader social and cultural contexts (White 1997: 119). This method allows the art to be broken down into all its component parts. It allows us to examine the natural and cultural constraints that acted on the painter of the images. The natural constraints would be environment and geology. Different parts of the country presented the artists with different shelters to paint in, difference in pigment choices and differences in animal types that they saw. How the paintings were made would be constrained by what was expected in the paintings and how the paintings were made before. This comes down to pigment choice, selection of what to paint and in what proportion, the decision on how to paint the images and the techniques used. This descriptive framework can show where similarities and differences exist, but not why they exist except those due to natural constraints. To answer the ‘why’ question we need to look more closely at how regions are formed.

HOW ARE REGIONS FORMED?

We need to investigate how rock art originated in context and thus come to some conclusions as to why we see difference in the art. There needs to be a distinction between things/objects that we see and techniques/processes that created them. Techniques mediate between objects and society. We need to understand the process of artefact creation to understand how ‘style’ is created (Dietler & Herbich 1998: 236), in other words we need to understand ‘how things are done’. Cultural transmission within groups and how information is transferred across space play a role in ‘how things are done in different areas’ and thus the formation of regions. I consider how ideas and thus ‘culture’ is transferred from person to person, how networks contribute to information exchange and finally how landscape affects cultural transmission.

Cultural transmission

Rock art is an expression of culture, and by culture, I mean “The activities, values, and behavior of an individual that are acquired through instruction or imitation” (Cavalli-Sforza et al. 1982: 19). Cultural transmission is the means by which this ‘culture’ is transferred from one person to the next. The idea of cultural transmission is implicit in many explanations of culture change (Eerkens & Lipo 2007: 239), and I would argue cultural continuity. It can be used to explain variation, similarity and relatedness over space and time (Eerkens & Lipo 2007: 240) as similar behaviour and artefacts are for the most part caused by the exchange of information. Cultural change happens through both innovation by the individual and copying through social learning (Eerkens & Lipo 2007: 242). This information exchange can be as small as a single idea from a single individual or could occur on a bigger scale (Eerkens & Lipo 2007: 243).

How the communication of information occurs has an effect. The two primary forms of cultural transmission which are relevant to regional studies are the vertical (parent to child) and oblique (from teachers or members of the parents’ generation to children) transmission. The former is seen as the most influential factor in political and religious beliefs while the latter created homogeneity in a population and spatial differences (Cavalli-Sforza et al. 1982: 20). Horizontal transmission, between members of the same age group (Cavalli-Sforza et al. 1982: 20), also needs to be considered. The more communal nature of hunter-gatherer societies (e.g. Draper 1976) points to oblique transmission being the most influential, leading to homogeneity in social structures and belief systems.

The efficacy of the transference of cultural information is dependent on the mode of transmission (Eerkens & Lipo 2007: 252). Archaeology often focuses on the content of the information such as stylistic difference (Eerkens & Lipo 2007: 254) rather than mode or context. Washburn (2001) investigates the influence of context (meaningful associations with the objects they are copying and cultural knowledge) on making accurate reproductions. Experiments show that meaningful associations and cultural knowledge lead to more accurate representations. Cultural replication takes place in the mind which is more than just a repository of traits. The cultural information is

filtered through one's worldview: people living in similar cultural, social and physical environments will acquire similar worldviews (Eerkens & Lipo 2007: 244). The 'look' of the artefact is made up of many factors that "include the aggregate of ideas and processes involved in construction and how these are transmitted between individuals while simultaneously being modified through copying error, individual learning, experimentation, or innovation" (Eerkens & Lipo 2007: 263).

We also need to be cognizant that cultural convergence can occur and similarity does not necessarily mean that there is cultural transmission or information exchange between groups (Eerkens & Lipo 2007: 244). When investigating relatedness, we cannot look only at a single trait or idea as a representation of a whole group; rather we need to look at a number of measures (Eerkens & Lipo 2007: 243). There is evidence in southern African rock art of continuity in space and time of ideas, but this does not mean that when we see similar images vast distances apart, that information exchange was happening. Research has shown that many broad similarities in San art are due to a pan-San cultural system that extended over most of the subcontinent and when studying regionality we need to look beyond these broad similarities to the differences that are due to direct cultural transmission.

Networks

Any activity such as painting is only one of the many interactive networks in which painter (or potter etc.) participates and is only one of the many roles performed by the individual (see Dietler & Herbich 1989: 149). However, interaction amongst other members who made the craft plays a significant role in determining the material pattern of the craft (Herbich 1987: 202). E.g. Luo repertoire of pots is neither uniform nor bounded and overlaps with neighbouring communities (Dietler & Herbich 1989: 155). Regarding the San, there is ethnographic evidence for long-distance movement of peoples (e.g. Wiessner 1977; Kinahan 2017). These extended networks would also have an influence on the painted record and cause homogenization of the art, "In contrast to groups, networks do not have "natural" boundaries" (Borgatti & Halgin 2011: 1169). Networks can cause blurring of boundaries.

This blurring means that regions are often conceptual instead of hard physical boundaries and are thus hard to see archaeologically. Instead there was more likely to be an awareness of a centre of things (core area) than an understanding of the limits of influence (Cummings 2011: 37). Therefore there will be considerable areas of overlap and ambiguity in the notion of regionality. We might be able to define the core area, but the extent of the periphery is not always that clear. We need to look at the interplay between different scales and different approaches to this topic (Cummings 2011: 37-8). Borders may be multiple depending on what aspects we are looking at (Mullin 2011: 13).

Landscape

Landscapes can be a rigid force in the transmission of culture. Elements of the landscape provide a basis for the transmission of knowledge that is essentially unchanging from generation to generation (Potter 2004: 336). However, the perception of the landscape is based on our life experiences, our knowledge and our learning. There is an objective world out there, but it is instead, ‘pre-interpretation’ that is the basis of landscapes perception and this is not objective (Thomas 1998: 65–6; Bender 2002: S104). The landscape is not passive. “Human interventions are done not so much to the landscape as with the landscape, and what is done affects what can be done” (Bender 2002: S104). Differences in shelter type based on differing geology would affect the final ‘look’ of the art. For example, based on personal observations, large flat surfaces are rarer in the quartzitic sandstone of the Cape Fold Belt in the southern Cape, than in the Clarens formation sandstone of the Maloti-Drakensberg. There is a constant back and forth between the characteristics of the landscape, the painter and the painter’s society that need to be taken into account when looking at regional difference. The visual and fixed nature of rock art in the landscape mean that continuity of the art through time was influenced by the geology, the images already on the rock as well as what was learnt through cultural transmission. Not only would motif choice be influenced (Lewis-Williams 1972: 58; 1974: 94–5; 1992b; 2015: 171), but also the formation of the images.

We see regional differences because the process of image-making, as well as the outcome, depends on the individual’s learning as well as the landscape in which they

work. We can expect conservatism in belief and the expression of that belief due to modes of cultural transmission, but where there is little or no interaction between groups differences will develop over time. The landscape will also impact both the 'look' of the final product as well as act as a differentiating factor by influencing the final product differently in different areas. Broad-ranging networks might cause blurring of boundaries of regions, but the reach of influence has limits, and this is one way to understand the extent of information exchange amongst past societies.

WHAT DO REGIONS MEAN?

Beyond simple ethnic or linguistic distinctions, there has seldom been any attempt to get to grips with what regions can tell us about past lifeways and societies. Studies both in South Africa (e.g. Smith 2006a: 95) and elsewhere (e.g. McDonald 1998: 324) have shown that regional differences are not indelibly linked to either linguistic boundaries (Lightfoot & Martinez 1995: 481) or the distribution of 'archaeological cultures' (Jordan & Shennan 2003: 72): it is nevertheless often assumed that 'stylistic' differences in the rock art point to differences in cultural identity (e.g. Sundstrom 2012: 326-7; Tratebas 2012: 144; cf. Taçon 1993: 112). Few arguments support the simplistic idea that people equal pictures, but it is still a widespread assumption.

The definition of a region is fundamentally relational; a region can be defined as much by what is absent (*vis-à-vis* other 'regions') as what is present. The infinite number of ways in which one can make rock art (particularly that with highly-detailed representational iconography) makes it unlikely that separate groups will make the same specific choices 'by chance', though they may alight on similar themes due to the nature of pan-San cosmology (itself a very large 'region', at a different scale of analysis). These specific choices are socially transmitted; the degree to which choices are similar will, therefore, depend upon the degree of interaction between groups. The boundaries of regions will, in most cases, be fuzzy (Smith 1998: 218), not only because of issues of temporal resolution but also due to the nature of boundaries themselves, often the "foci of interaction, not barriers" (Hodder 1982: 35).

Archaeological identity and ethnicity

Diversity exists between communities, but how is this acknowledged and studied without falling into the “trap of cultural determinism?” (Jones 2011: 3). First, we need to understand the ‘structural motivations’ that underlie the patterns we see in the archaeological record. (Cannon 2011). In trying to understand past structures and motivations in the make-up of group identity is very different from its application to living people. Political, economic or linguistic entities are not the same as archaeological identity, but the creation of images is part of a culture that has been learned in different ways by different groups (Huffman 1980: 168). But what are these differences?

Ethnicity is a problematic term. Few people explicitly define what they mean by ethnicity (Jones 1997: 56). Some regard ethnic groups as socio-cultural units with distinct boundaries characterised by isolation and lack of interaction. Others regard ethnicity to be socially constructed and informing of social behaviour and interaction (Jones 1997: 57). In both understandings, it is a relational concept and can only be talked about in relation to the other (Wilmsen 2004: 520; Jones 1997: xxiii).

Unfortunately, this term is often used with little or no critical discussion. It is used as a catch-all term to speak about both different groups as well as peoples with different subsistence strategies (e.g. Smith & Ouzman 2004: 499; Smith 2006b: 86). “As a result of the ways in which archaeological knowledge is implicated in the construction of ethnic and national traditions, there is often a problematic slippage between contemporary concepts of group identity and the identification of past ethnic groups in archaeology” (Jones 1997: 136).

Because of the problems with this term, I choose to avoid it. I use the term San, not to point to a monolithic ‘ethnic’ group, but rather for convenience to speak about hunter-gatherer peoples, south of the Zambezi, who were the authors of most of the fine-line art in question. By using this term, I am not uncritically pushing back modern social and cultural grouping into the past, but rather acknowledging cultural continuity and associations between modern ethnographic sources and archaeological finds.

Communities of practice

Different ways of doing things are passed on by cultural transmission, but stylistic boundaries do not mirror linguistic boundaries, so the ways that cultural information is transmitted is different to linguistic transmission (Jordan & Shennan 2003).

Particular traditions cannot always be accounted for by geographic proximity, language and/ or local ecology (Jordan & Shennan 2003: 71). People have probably always been “more mobile and identities less fixed” than much of the literature on culture and regions would suggest (Gupta & Ferguson 1992: 9). Archaeological remains cannot be seen as indicators of ‘ethnic’ identity but rather should be “understood in the context of heterogeneous and often conflicting constructions of cultural identity” (Jones 1997: 140). Differences in ‘ways of doing’ do not correspond to ethnic groups, but rather to differences in learning communities (Jones 1997: 122-3).

To understand what regions can tell us we need to take a relational way of looking at the makers of the art. We need to see people, not as someone along a line of genealogical connections or how they are related to one another. Instead this way of investigating, looks at all the relationships during their life and how these act on or ‘grow’ a person (Ingold 2000: 144). In San art there does not seem to be deliberate information in the paintings signalling group identity, rather the similarities and differences indicate relations (or lack thereof) between individuals during their life. What we are seeing is evidence of many different communities of practice.

The concept of communities of practice (Lave & Wenger 1991) gives us an approach which allows us to look at ‘ways of doing’ without resorting to culture-historic modes of thought. “Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger et al. 2002: 4). It is participation that is at the base of communities of practice rather than factors such as geography, gender, social class or ethnic groups (Wenger 1998a, b). The fluid exchange of knowledge between people or groups practising the same craft provides a platform for innovation, but also continually reinforces existing ideas (Wenger et al. 2002: 4)

The individuals who make up a community of practice may live in multiple places and with different groups over the course of their life, taking with them their skills and ideas regarding art making (Eckert et al. 2015: 10). Different “scales, modes, intensities, and types of interaction” are reflected in communities of practice (Gilpin & Hays-Gilpin 2012: 45). The scales of this interaction can vary from regional groupings to individual groups of people to how different areas within a site are constructed (Gilpin & Hays-Gilpin 2012: 45). It is shared knowledge and participation in activities that create the communities of practice (Stark et al. 2008: 5) rather than belonging to a particular ‘ethnic group’.

Shared features in the rock art imply a community of practice. Here it is the practice that is important, the tools and techniques, as well as the underlying reasons and beliefs regarding the making of the art. A solid boundary between different regions is unlikely; instead, there are many overlapping communities of practice (through time and space). Thus it is also unlikely that there is a neat linkage between the excavated archaeological record and the rock art. Rock art, situated in ritual practice (e.g. Lewis-Williams 1995), may have a very different community of practice than that of subsistence practices. Similarly, different aspects of the rock art would have different communities of practice. For example, many of the formal aspects of rock art are learned and shared within particular areas while the underlying ideas may be passed on through information exchange over a wider area.

Looking at regional differences allows the investigation of ranges of ideas, social and exchange networks and the movements of people across space; an understanding of the many overlapping communities of practice and how these intersect to form constellations of practice. We can imagine different groups of painters, each part of different communities of practice, using similar selected motifs or materials or techniques to form a constellation of practice in what was most likely a “heterogeneous network of crafters” (Joyce 2012: 151; see also Gilpin & Hays-Gilpin 2012). The utility of these ideas is that we can move away from problematic ideas of ethnic identity based on culture-historic approaches.

CONCLUSION

Early studies of regional difference in southern African rock art were based on simple concepts of style and problematic culture-historic approaches. More recently binary approaches of presence-absence of motif have been proposed as a way forward for regional studies, but this approach brings its problems. In southern African rock art many motifs are widespread, and it is the manner of depiction that points to regional differences. In the absence of theoretical engagement with the concept of regional difference in southern African rock art, there has been a tendency for many of the problems with the definitions of regionality to be ignored and continue to be promulgated in the form of underlying tacit assumptions or worse a tendency to homogenise the art. Ethnographic evidence points to differences in material culture, territories and boundaries so there is reason that these should not be seen in the past.

This paper looks at why the investigation of regions is important today, how we can recognise regions, reasons behind the formation of regions and what they might tell us about past peoples. By recognising regional differences, we can more firmly place the rock art within the rest of the archaeological record and move away from tacit assumptions about difference to more explicit discussions about difference and why things are different. I argue that to recognise difference in the art we need to look beyond simplistic criteria such as motif or style, but instead look at the art as a whole, including its environmental context, composition and consumption. Regional differences come about through differences in ‘ways of doing’. I propose that the concept of the *chaîne opératoire* be used as a descriptive framework to look at the art in its component parts and its context rather than merely at the end product. Similarities should be expected since “religion is far more uniform throughout Bushman and even Khoisan southern Africa than are material aspects of culture and society” (Barnard 2007: 96), but it is the small differences which need consideration when looking for regionality. We need to move away from the idea that we will find “bounded, homogeneous cultural entities [that] correlate with particular peoples, ethnic groups, tribes, and/or races” (Jones 1997: 24). Instead we need to look at regions of expressions of how people organised themselves in the past as well as a pointer to directions of information exchange. I do not think territoriality in the strict

sense of the word can be seen in the rock art; regions come about through differences in how things are done in different areas while movement of people and ideas serves to blur any regional boundaries we might expect to see. Finally, we must not fall into the old cultural-historical trap that difference in the art points to linguistic or ethnic affiliation (an idea which still seems implicit in many regional studies of rock art worldwide). Variation in the art points to different communities of practice and can inform on past interactions and information exchange and possibly even the direction of movement of this knowledge.

This proposed methodological (*chaîne opératoire*) and theoretical (communities of practice) framework gives a solid foundation for the further exploration of regional difference in southern African rock art and has implications for regional rock art studies worldwide. More dated rock art sites in the future will lead to a better understanding of temporal differences and possibly micro-regional differences, but this is still a way off. In the immediate future, studies looking at the change of specific motifs and how they are painted through space will help us understand information exchange and begin to build up core areas for specific images. Another significant route of further investigation is a comparison of all the different aspects of the art along the chain of operations, both natural and those considered to be influenced by culture, in different areas.

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CHAPTER FIVE:

TOWARDS CONCEPTS OF TERRITORIALITY

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Towards concepts of territoriality in southern African pre-colonial rock art: new insights from the Eastern Cape, South Africa

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Abstract

The last 40 years have seen little research into regionality in southern African rock art and consequently its potential as a means of exploring pre-colonial territoriality and identity has been neglected. Recent surveys in the Uitenhage District, Eastern Cape, South Africa, have identified thirty previously undocumented sites, and ongoing research is sure to bring more to light. The current paper uses this previously unexplored area as a case study to look further at ideas of territoriality and if it can be seen in regional differences in southern African rock art. Uitenhage lies at the eastern extremity of the western / southern Cape art tradition and has many similarities with this region. To the north and north-east lies the well documented area of the north-Eastern Cape Drakensberg. This paper explores several themes found in the art of the area. First, the meanings of the images are investigated using current understandings of San cosmology.

Secondly, themes are compared and contrasted with the better researched regions of southern Africa. This research has pushed the range in which swift-tailed and bird-tailed therianthropes occur over 150 km east along the southern Cape coast, and also describes the first example of a 'thin red line' (relatively common in the north-eastern Cape Drakensberg some 500 km distant) ever to be published from the southern Cape. This paper works towards the meaning of territoriality, if it may be seen in the rock art, and will also propose some ideas about what regional differences in the rock art of southern Africa may mean and if they can be seen as markers of cultural identity.

Key-words

Rock Art; South Africa; Eastern Cape; south eastern Cape; territoriality.

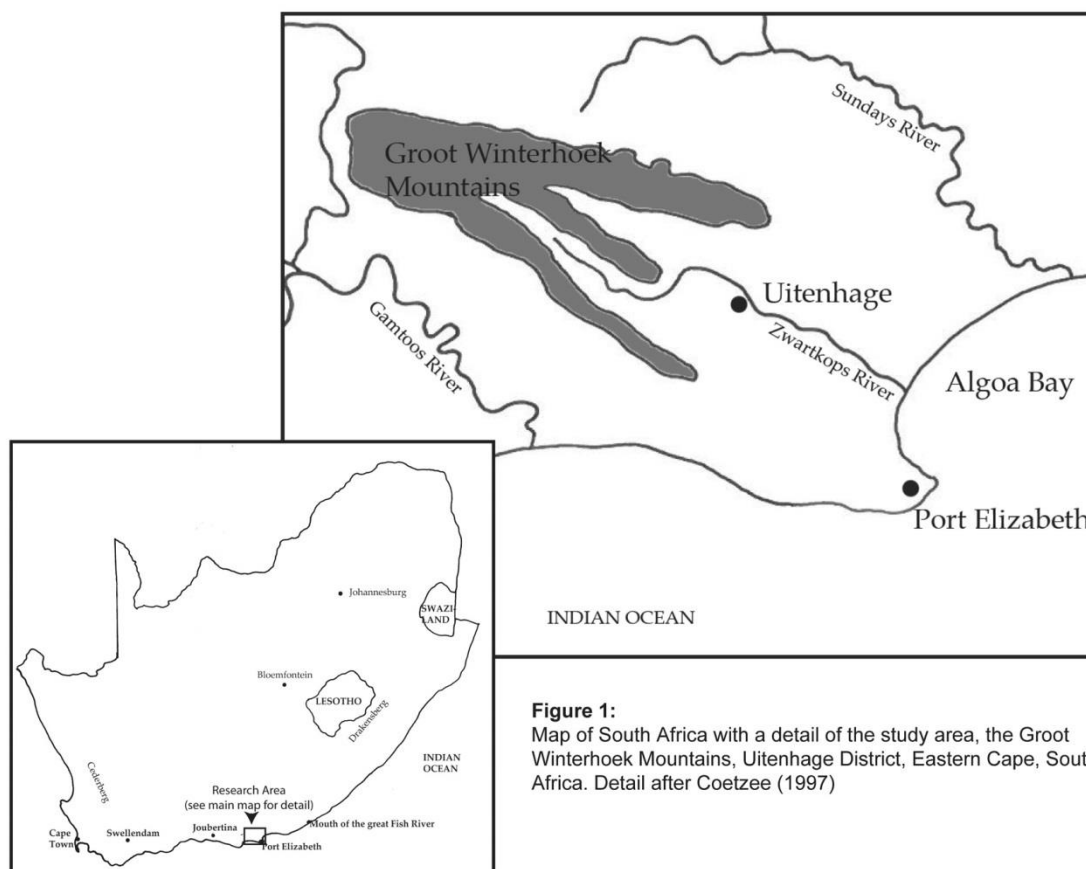


Figure 1:
Map of South Africa with a detail of the study area, the Groot Winterhoek Mountains, Uitenhage District, Eastern Cape, South Africa. Detail after Coetzee (1997)

INTRODUCTION

Recent work in the Groot Winterhoek Mountains of the Uitenhage District, Eastern Cape Province, South Africa (Figure 1) has resulted in the documentation and recording of over 30 rock painting sites. Though some images have featured in popular publications (Willcox 1963; Coetzee 1997), this represents the first formal research to be carried out in the District. Since the time of pioneering researcher Miles Burkitt (1928), the area covered by the Uitenhage and Albany Districts has been recognised as the eastern boundary of the southern 'style' of rock art (extending eastward from the Cederberg in the south-western Cape). This new research demonstrates that while

the art bears broad comparison with the art of the Cederberg and that art extending in a broad band along the southern Cape coast, it also shows some anomalous and unique features. This, along with the fact that the greater southern Cape area has a well-documented archaeological record, makes the District a good candidate for studies of regionality and territoriality in rock art.

While large scale historical and country-wide metanarratives of southern African San rock art (Lewis-Williams & Dowson 2000; Lewis-Williams & Pearce 2004; see Lewis-Williams 1972; 1974; 1981a for exceptions) have resulted in an understanding of southern African rock art that surpasses that of nearly every other world rock art tradition,

this can lead to the overlooking of potentially significant spatial differences. Investigating regionality and its implications may provide a more nuanced understanding of rock art and its social significance, as noted in specific times and places.

The sites revealed in this research programme reveal that, while manner of depiction and the emphases differ somewhat from other areas, it is evident that the art of the Uitenhage District was made by the San and shows the same belief system; I select certain images from these new sites and examine how these are related to the better studied areas of the Drakensberg and Cederberg/southern Cape. Much of the imagery seems to be in the 'style' of the art in the Cederberg and the southern Cape coast, but it also contains subjects that point to possible conceptual links with the art of the Eastern Cape Drakensberg. Rather than seeking to divide the regions with 'concrete' boundaries, I intend to consider this area as a junction place between two loosely-defined areas that mingle at – rather than being separated by – a spatial junction: "... culture boundaries ... are foci of interaction, not barriers" (Hodder 1982: 35).

THE RESEARCH AREA AND WESTERN/SOUTHERN CAPE 'STYLE'

The rock art of the Uitenhage District is found in the Groot Winterhoek Mountain range, at the eastern extremity of the Cape Folded Mountain Belt (Figure 1). It consists of Table Mountain Sandstone (Werner Illenberger pers. com). In the central and eastern areas, the belt is characterised by folds striking east-west from Swellendam in the west to the mouth of the Great Fish River in the east (Newton *et al.* 2006: 521). The geology of the Groot Winterhoek Mountains has led to the formation of shallow caves and overhangs (Coetzee 1997) and it is in these overhangs that the paintings are found. The main vegetation of the area is Kouga Grassy Sandstone Fynbos with Kouga Sandstone Fynbos on the mountain tops (Mucina *et al.* 2006: 763). The Kouga Sandstone Fynbos is found on the high main ridge of the Groot Winterhoek Mountain range (Rebello *et al.* 2006: 125) situated above the shelter formations. The vegetation in the valleys and around the shelters is the Kouga Grassy Sandstone Fynbos which consists of "a low shrub-



Figure 3 : Photograph of a trance dance scene. Clapping figures are on the right of five dancing figures arranged in a circle. This site was subsequently destroyed by fire, so tracing it was not possible.



Figure 4 : Redrawing, from a tracing, of clapping figures on the right of figures engaged in what seems to be a dance. All figures are painted in dark red.

bland with sparse emergent tall shrubs and dominated by grasses in the undergrowth, or grassland with scattered ericoid shrubs" (Rebello *et al.* 2006: 126). The western/southern Cape art region all occurs within the Cape Fold Belt with fynbos flora.

Some of the most notable aspects of the western/southern area art that occur across the region, are the bright red figures, the smudged backgrounds and the presence of hand prints (Burkitt 1929: 92), none of which have been found in any number in the Drakensberg. Figure 2 shows a painted site in the Cederberg showing some of these features as compared to the detail in an antelope from the northern Cape Drakensberg.

THE ART

Much of the art of the Uitenhage District can be interpreted through what we know about the San healing or trance dance and of San conceptions of the spirit world. While a full catalogue of the images is beyond the scope of this paper, I discuss some of the general themes of the area.

Studies of rock art in other parts of the country and first hand ethnographic accounts indicate that San ritual specialists mediated with the spirit

world through the trance or healing dance that led to an altered state of consciousness (see Lewis-Williams & Pearce 2012). This often appears in the Drakensberg rock art in the form of distinctive postures – such as bleeding from the nose, hand to nose posture or arms back posture (Lewis-Williams & Pearce 2004). These are rare or absent in the Uitenhage District art, although at least two unequivocal trance dance paintings have thus far been discovered here. These scenes (Figures 3 & 4) display distinctive elements that betray their status as trance dances. Seated figures clapping, circular arrangement, bending forward figures and dancing sticks (Marshall 1969:364) are all characteristic indicators of this practice; the antelope-eared caps or have emanations from the head (Figure 3) indicate the presence of shamans.

Besides trance dances, other imagery thought to relate to the San spirit world is also depicted. Figure 5 shows fish floating by the heads of two seated figures. While the meaning of this evidently unreal situation is uncertain, depictions of the underwater world (along with death and being 'spoilt') are (or were) known to be a common metaphor for the trance state, and are used by both southern and northern San (Lewis-Williams 1980: 474; Lewis-Williams & Dowson 2000: 30). It is probably derived from the link between trance experience and the feeling of being under water (Lewis-Williams & Dowson 2000: 54).

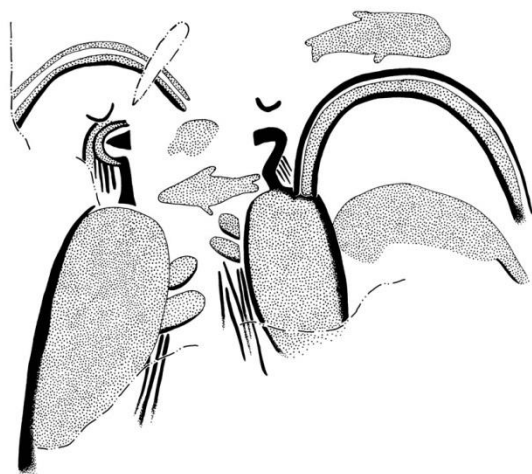


Figure 5 : Redrawing, from a tracing, of two seated figures with fish floating near their heads. Black represents red and the stipple represents yellow.

The natural texture and features of the rock face have been shown to be meaningful elements in San rock paintings, and the rock face itself is generally perceived to be a veil between the human world and the world of spirits (Lewis-Williams & Dowson 1990). This is illustrated in the Uitenhage District, as in other parts of the country, by images which seem to either emerge from or disappear into cracks and steps in the rock (Figure 6). Figure 6a shows the hind-quarters of an antelope which has been painted in such a way that it seems that the rest of the body is disappearing into a step in the rock. Figure 6b shows a human figure painted in a similar way; its foot seems to be behind the rock surface. While there are other cases, these two demonstrate continuity in the San manner of depiction and, perhaps, conceptualisation of the rock face.

Figure 7 shows a small zigzag with a possible antelope head and a clear human foot. Although the use of zigzags is rare, there are at least two

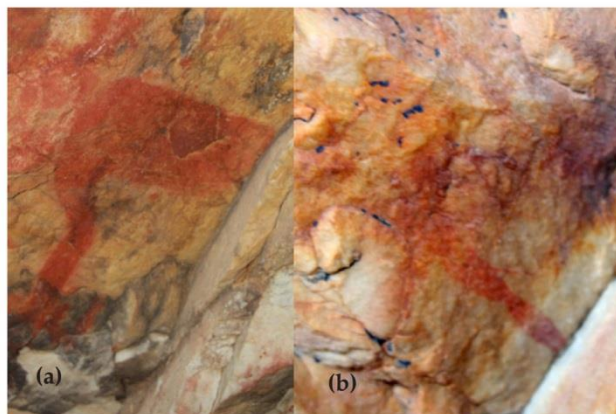


Figure 6 : Images emerging or disappearing into steps on the rock face. (a) Hind-quarters of an antelope ending at a step in the rock. (b) Human figure painted with one leg ending at a step in the rock.



Figure 7 : Redrawing, from a tracing, of a small zigzag with a possible antelope head and a clear human foot. The figure is painted in light red.

examples showing their incorporation into human figures; one from the Drakensberg (Lewis-Williams 1986: 175) and another from the southern Cape (Laue 1999: 42). The neuropsychological literature considers these images to be representations of altered states of consciousness, recalling synesthetic experiences where the individual feels that they become the shape they see (Lewis-Williams 1986: 174). This feeling has also been depicted by shamans in the Kalahari (Katz 1982: 237), who represented themselves as zig-zags or spirals rather than the stick figures drawn by non-shamans.

This short summary only touches the surface of the varied images that are found in the Uitenhage District, but serves to conclusively demonstrate this area's conceptual links with San paintings elsewhere on the sub-continent. Both rock art and ethnographic research (Lewis-Williams & Biesele 1978; Lewis-Williams 1981a, 1992; Lewis-Williams & Pearce 2012) are conclusive in demonstrating what seems to be a form of 'pan-San cognitive system' of similar spiritual and ritual beliefs that covered most of southern Africa south of the Zambezi. The Uitenhage District rock art fits readily within this interpretative paradigm. The question remains however: what is the smaller-scale relationship of this art to that of other, better studied, regions?

REGIONALITY

Defining rock art regions was an intellectual priority for the majority of rock art enthusiasts up until the 1970s (Burkitt 1928, 1929; van Riet Lowe 1941, 1956; Wilcox 1963; Malan 1965; Rudner & Rudner 1970; see also Willcox 1984). The intellectual topography of the field has changed considerably in the last 40 years, however, and while there has been considerable work looking at regional and locally specific traditions (e.g. Blundell 2004; Mguni 2005; Hollmann 2005a; Mallen 2008; Pearce 2009; Challis 2012), there is less drive to merely subdivide the artistic corpus and more attempts to examine the social significance of specific traditions. Few of these papers have looked explicitly at how to identify regions and what regions may mean (see Laue 1999; Hampson *et al.* 2002; Eastwood *et al.* 2010 for exceptions).

Burkitt (1928; see also 1929) was one of the first to divide southern African rock art into regions, and his work was continued by van Riet Lowe (1956), Wilcox (1963), Malan (1965) and Rudner and Rudner (1970), among others. Although each researcher proposed a slightly different number of regions, they all agree that the north-Eastern Cape and KwaZulu -Natal Drakensberg form a distinct area as does the southern Cape (Figure 7). With the exception of Rudner and Rudner (1970),

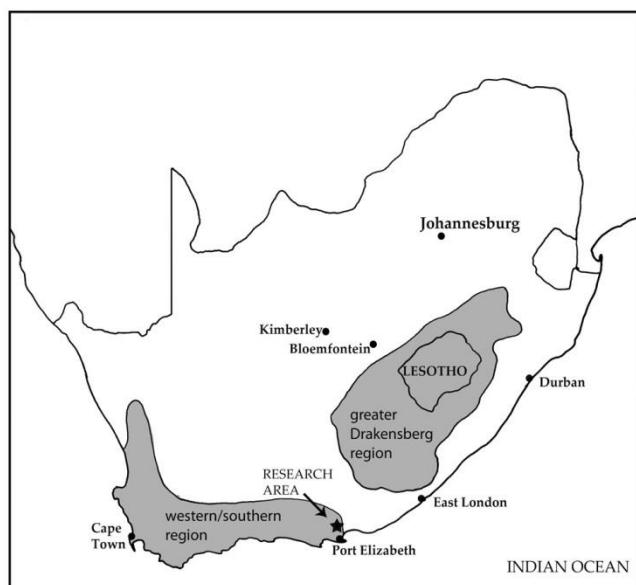


Figure 8 : Map of South Africa showing where the study area lies in relation to the southern region and the Drakensberg region. This map is based on van Riet Lowe (1956) and Willcox (1984).

all include the Cederberg in the greater southern Cape region. The Uitenhage district falls at the eastern extremity of the generally agreed upon – but variously named – western/southern region.

Traditional criteria used to divide up the country's artistic heritage were based upon vague notions of 'style' that were by necessity very generally defined and prone to extensive exceptions. The notion of 'style' is a debated topic which I will not go into here. In using the word style, I follow Layton who defines style as "the formal qualities of a work of art" (Layton 1981: 134). When investigating stylistic differences one also need to take into account whether the style is an active group marker (see Wiesner 1983, 1984, 1985) or whether style is passive and occurs due to spatial or temporal differences (see Sackett 1985).

Unlike regional studies in many other parts of the world that examine stylistic differences over large areas as a preamble to determining ranges of linguistically and culturally distinct groups (e.g. Turpin 2001), this study concerns artistic signatures of possibly linguistically different yet cultu-

rally and ritually homogenous peoples. Although some authors have examined identity and authorship of other traditions in southern African rock art (e.g. Smith & Ouzman 2004; Eastwood & Smith 2005; Namono & Eastwood 2005; Ouzman 2005; Mallen 2008; Eastwood *et al.* 2010; Challis 2012), none have dealt specifically with the subject of regional difference – and its social implications – in pre-contact San rock.

Taking the Uitenhage District as a case study, I propose to look at the boundary between two of these proposed regions, that of the western/southern Cape and that of the greater Drakensberg region. My approach will be to examine these distributions more specifically, to pin down regional differences more tightly, and to determine the intersection zones of distinct territories. Although this work is currently ongoing, some preliminary findings are presented.

Below I discuss a number of aspects of the art of this broad boundary area and examine how they relate to either the art of the southern region or the Drakensberg region.

ART ALONG A FUZZY BOUNDARY

The Uitenhage District art is clearly affiliated 'stylistically' to the western/southern area. Many of the paintings appear to either have been touched or rubbed or painted directly onto a pigmented surface, and bright red is the dominant colour (for more on touching and rubbing see Yates & Manhire 1991). Handprints are nearly ubiquitous, ranging in number from just one to over a hundred at some sites.

Bird-tailed figures have been known as an element of the southern Cape area art since its first description by James Alexander in 1835, although he suggested they were fish-tailed figures or 'mermaids' (Alexander 1837 in Lewis-Williams *et al.* 1993). Hollmann (2005a; 2005b) has identified many more of these figures and has convincingly argued that they are instead swift-therianthropes. The Uitenhage District has so far yielded at least five swift-tailed images (see Figure 9 for an example), extending their distribution over 150

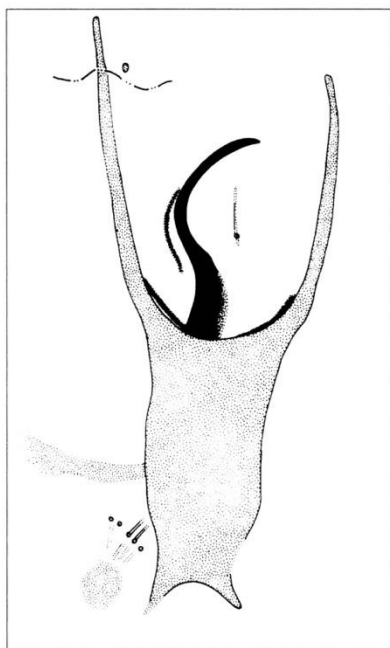


Figure 9 : Redrawing, from a tracing, of an example of a bird-tailed therianthrope from the Groot Winterhoek Mountains. It has a hook-head which is a common feature of human figures painted in the area. The painting is in red with a black head and detail.

km to the east from where they were previously known. Although the figures in this area show some differences to those in Hollmann's core research area, their presence indicates that there is a conceptual link between the two (Laue in prep.).

Many of the antelope paintings in the Uitenhage District are monochrome or blocked bichrome (no shading), including few details such as horns and hooves. As noted by earlier researchers (e.g. van Riet Lowe 1952: 8) action is poorly depicted and they are most often painted in profile. This is in contrast to the many various angles of the shaded polychromes of the Drakensberg (Vinnicombe 1976). However, one site in the Uitenhage District has been identified with a shaded bichrome eland (Figure 10); only one other site in the southern/western Cape region contains such an image. Ano-



Figure 10 : Photograph of a shaded bichrome eland from the Uitenhage District.

ther Uitenhage site, although poorly preserved, contains the remains of two eland with detailed hooves and faces reminiscent of those of the Drakensberg.

'Thin red line' (Lewis-Williams 1981b), red lines fringed with white dots that are believed to represent threads of light that shamans would climb or move along (Lewis-Williams *et al.* 2000). Although lines – possibly representing similar ideas – are found in other parts of the country (Yates *et al.* 1985: 78), red lines fringed with white dots were previously believed to be restricted to the south-eastern mountains of the Drakensberg (Lewis-Williams *et al.* 2000: 123). However, one of the Uitenhage shelters contained a depiction of a human figure, in an antelope-eared cap, grasping just such a line (Figure 11), thus significantly increasing their known range towards the south and the west.



Figure 11 : Redrawing, from a tracing, of a figure grasping a red line fringed with white dots at the top.

TOWARDS CONCEPTS OF TERRITORIALITY?

Although at first glance the art of the Uitenhage District is visually similar to the art of the western/southern Cape region, when we look closer we see links with the Drakensberg region as well. This preliminary analysis suggests that the Uitenhage District lies on the boundary of these two very large and fairly distinct rock art painting regions. As expected, this boundary area is wide with no distinct borders; rather it is an area with considerable input from both regions, incorporated into a specific cultural signature. In the abstract, this is to be expected, as truly marked cultural discontinuities are archaeologically rare (Hodder 1982). The blurring of cultural borders can have many social causes. In the current case it tends to fit well with what is known about the Ju/'hoan San *hxaro* exchange networks in the Kalahari, where gifts (and by extension ideas) would be exchanged over many kilometres (Wiessner 1982: 6).

A small number of archaeological studies have attempted to identify boundaries and territories in the southern African Later Stone Age (San)

assemblages (Sampson 1988; Mazel 1989; Hall 1990). However, while Sampson (1988:15) could identify weakly defined boundaries, he is of the opinion that the evidence is not sufficiently strong to argue for a band-territory level of refinement. Hall's (1989) examination of stone tool variability for boundary definition was similarly hesitant to make bold territorial group claims. Mazel's (1989) work on archaeological assemblages in KwaZulu-Natal's Thukela Basin, identified three regionally distinct areas, but no greater level of refinement was possible. None of these studies attempted to incorporate rock art (*cf.* Dowson 1994). It is doubly unfortunate that nobody has heeded Sampson's (1988: 175) call for a similar study of rock art, for recent discoveries, intellectual shifts and technological innovations could bring a great deal to such a project.

People live and act differently in different areas and this may be reflected in the archaeological record (Shennan 1994: 5). However, this does not mean that we can assume that differences in material culture mean distinct groups or that similarities necessarily mean the same cultural group (Hodder 1982: 3).

Although we do see small differences between two greater regions of the southern/western Cape and the north-Eastern Cape there is a coherence to the art that is much larger than any San band size. Could each of these regions be what Mazel (1989: 83) calls 'social regions'? These are defined as a geographical areas with "dialectically socially and economically distinct groups of bands integrated through a dynamic network of social interaction into a cohesive social unit" (Mazel 1989: 83). As a general concept this is in accordance with Deacon's (1986: 153) study of historical San groups in the Northern Cape, where groups recognised themselves to be distinct and often produced different cultural artefacts, yet shared –essentially – the same beliefs. Since all the evidence suggests that rock art depicts the religious beliefs of the San, it would logically follow that it might be difficult to see artistic differences on the same level as differences seen in the archaeological record.

The significance of the greater regional differences is open for debate. Are they really as distinct as they have been argued to be? On the basis of this ongoing research, and bearing in mind the impact of future discoveries in the area, I suggest that the Uitenhage District boundary area shows a

greater overlap of similar themes and motifs than previously thought - and there was almost certainly cultural and social exchange between the two regions.

DISCUSSION

The preliminary results of rock art studies in the hitherto unexplored Uitenhage District suggest two points. First, there is no indication that it is possible to ascertain the nature of territories or bands owing to the shared nature of San cosmology and religious and ritual behaviour, which transcends bands, dialects, and possibly even linguistic boundaries (e.g. Barnard 1992). Secondly, it is apparent that these two areas of southern African rock art – the southern Cape area and the Drakensberg area – are not as clearly defined as was previously thought, and that there was very likely to have been considerable material and intellectual exchange between them. This can be attested to, cautiously, by what we know of the *hxaro* exchange system

While not impossible that a means may be discovered to identify more nebulous signs and signatures in the rock art that do testify to band affiliations, the data currently indicates that we would be ill advised to interpret minor fluctuations in artistic style as markers of specific cultural identity. Owing to the shared ritual and religious substrate of southern African San groups, rock art should be considered to be passive rather than an active marker of social boundaries.

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CHAPTER SIX:
CHARACTERISING THE ROCK ART OF THE GROOT
WINTERHOEK MOUNTAINS

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McAll's Cave: characterising the rock art of the Groot Winterhoek Mountains, Eastern Cape Province, South Africa

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ABSTRACT

The Groot Winterhoek Mountains northwest of Port Elizabeth contain a body of largely unexplored rock art. McAll's Cave, one of 38 recorded sites, contains exceptionally rich and well-preserved imagery. The range of images found in this shelter is representative of the rock art of the larger area. The content of the art places it firmly within the pan-San worldview. The presence and absence of specific imagery, quantitative analysis and manner of depiction of images show that although this art zone lies almost equidistant between the Cederberg and the Maloti-Drakensberg it shares many more similarities with that of the Cederberg and Western Cape art.

KEY WORDS: rock art, regional difference, shamanism, southern Cape.

McAll's Cave is situated in the Groot Winterhoek Mountains, at the far eastern extremity of the Cape Fold Belt, northeast of Port Elizabeth, in the Eastern Cape Province of South Africa (Fig. 1). The Groot Winterhoek Mountains lie in the transition zone between summer and winter rainfall (Lubke 1988: 6). Rainfall is generally low with a slight peak during winter (Stone 1988: 21). The main vegetation of this area is Kouga Sandstone Fynbos (on the mountain tops) and Kouga Grassy Sandstone Fynbos around the shelters (Rebelo et al. 2006: 125–7). The fynbos environments of the Cape Floristic Kingdom are famously speciose (Manning 2007: 14), and historical records (Skead 2007: 23–3) document the former presence of a diverse fauna. The rock art sites occur in shallow shelters and overhangs that were formed during the orogenic folding that gave rise to the mountains (Fig. 2; Truswell 1970: 107; Coetzee 1998: 77; Newton et al. 2006: 521). Members of the Eastern Province Section of the Mountain Club of South Africa have visited the area regularly since the 1950s, and identified over 131 rock art sites in the Groot Winterhoek Mountains (Coetzee 1998: 84). Although photographs of three of these sites have been published (Willcox 1963: 50, 1984: 240–1; Woodhouse 1984: 103, 1992: fig. 74; Coetzee 1998: 80, 81, 85), this area has not hitherto featured prominently in southern African rock art scholarship. Since 2012, I have documented 38 sites, including at least three previously unrecorded sites in the mountain range. Here I present an analysis of the Groot Winterhoek rock art imagery, focusing especially on McAll's Cave which is situated in a small tributary valley off Upper Chase's Kloof in the Groot Winterhoek mountain range.

McAll's Cave is important because it preserves complex panels of San (Bushman)¹ art, stretching over 7.5 metres, as well as paintings on the ceiling and under the low overhang. The paintings comprise over 220 well-preserved images, making this site one of the richest rock art sites in the area.

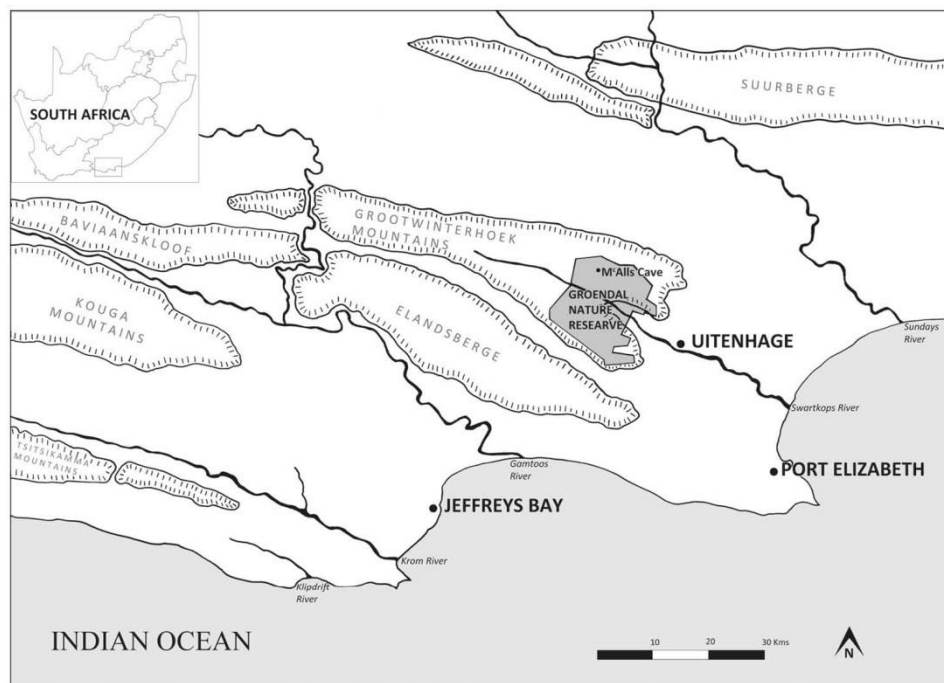


Fig. 1. Map of the Groot Winterhoek Mountains and surrounds showing the Groendal Nature Reserve and the approximate location of McAll's Cave.

ARCHAEOLOGY AND EARLY HISTORY

While no archaeological excavations or surveys have been carried out in the Groot Winterhoek Mountains prior to this publication, there are many excavated sites within a 200 km radius, ranging in age from the Earlier Stone Age to recent times (Hall 1988: 373). Much of the archaeological work done in the southern Cape was undertaken in the 1960s and 1970s (J. Deacon 1972, 1974, 1984; H. Deacon 1976, 1979, 1983; H. Deacon et al. 1978, 1984), and was crucial in defining the Wilton techno-complex of the Later Stone Age. One theme in the southern Cape has been the investigation of population movements and boundaries. H. Deacon (1976: 170) suggests a correspondence between divisions in ecological zones (fynbos versus Karoo) and archaeological assemblages. Binneman (2006–07), working in the Baviaanskloof/Kouga region, identifies distinct boundaries on the basis of stone tool assemblages. This proposition is supported by Sealy's (2006: 582) isotopic analysis of human remains from the Plettenberg Bay area and surroundings; these reveal distinct dietary communities (marine vs terrestrial) between assemblages separated by as little as 14 km.

Hall (1990) and Binneman (1995) argue that stylistic information encoded in stone tools can be read as markers of identity, at least for the last 5000 years. Hall (1990) proposes that, in the southern Cape, hunter-gatherer population densities increased over this period as populations abandoned an increasingly arid interior; groups began to use new strategies (such as food storage) to exploit their environments more intensively (Hall 1990: 8). Hall suggests that this landscape of intensive foraging led to stone



Fig. 2. Folds in the Groot Winterhoek Mountains create shallow shelters (photo: G. Laue).

tools (specifically raw-material procurement) becoming valorised as indices of group membership, and that an increase in shelter burials indicates increased territoriality (Hall 2000: 137). This interpretation finds some support in isotopic profiles in southern Cape populations over the last 3500 years (Sealy & Pfeiffer 2000: 654; cf. Hall 2000: 144).

Owing to the lack of reliable rock art dates for the area, the Groot Winterhoek rock art is temporally disjointed from the archaeological record. A general sense of timing can be inferred from other areas, such as the Maloti-Drakensberg images (2900 BP onwards), Botswana (4500 BP) and painted stones from burials in the Southern Cape (6000 BP onwards), although these should only be seen as a guide (Pearce 2005: 48; Bonneau et al. 2016: 16, 2017). It seems unlikely that paintings exposed in shallow shelters would be older than these dates, so it is probable that the area's rock art landscape reflects the relatively intensive hunter-gatherer occupation in the later Holocene.

The absence of 'contact imagery' (i.e. domestic stock, farmer peoples or Europeans) (e.g. Hall 1986; Campbell 1987; Pinto 2014) indicates a lack of positive evidence for the continuation of image-making traditions into the more recent past (c. last 1000 years), although San communities persisted in the region until the 19th century (Stow 1905: 204; H. Deacon 1976: 154–5). Faunal assemblages from rock shelters in the southern Cape confirm the presence of sheep from at least the early first millennium AD (Derricourt 1977: 55; Deacon et al. 1978: 57) and images of domestic livestock are known from sites in the wider southern Cape (Deacon et al. 1978: 41; Hall 1986; Laue 1999: 37–8). It is, however, impossible to confirm whether the absence of sheep and/or cattle in the Groot Winterhoek rock art reflects the total abandonment of image-making traditions prior to the arrival of livestock, or alternatively, that, for reasons unknown, these communities chose not to represent these animals.

ROCK ART AND REGIONALITY

Despite the studies of ancient boundaries and territoriality cited here, rock art scholarship pertaining to the southern Cape has placed relatively little emphasis on questions of regionality (for exceptions, see Laue 1999, 2016). Much of the earlier work on rock art regionality in southern Africa applied cultural-historical explanations linking paintings to stone tool ‘traditions’ (Burkitt 1928; Van Riet Lowe 1956; Malan 1965; Rudner & Rudner 1970; Willcox 1984), a view that is widely discredited today (Stahl 2009: 249). Certain elements of earlier works persist, however, notably that a distinctive southern group of paintings exists. This southern variation is said to gradually diminish in the vicinity of the Groot Winterhoek Mountains. It is typically characterised by a predominance of bright red pigments (Burkitt 1928: 128; Van Riet Lowe 1956: 8; Rudner & Rudner 1970: 179), the presence of ‘smudged’ backgrounds (Burkitt 1928: 128), a large number of handprints (Burkitt 1928: 128), generally poor preservation (Willcox 1984: 183), and a ‘hook’- or ‘sickle’-shaped head for many of the human figures (Rudner & Rudner 1970: 179). Certain scholars considered this corpus of paintings to be ‘inferior’ to rock paintings in the Maloti-Drakensberg (Burkitt 1928: 152; Willcox 1984: 181).

Shifts away from investigations into regional difference and towards the use of ethnography in attempts to understand the ‘meaning’ of rock art (e.g. Vinnicombe 1976; Lewis-Williams 1980, 1981a) led to claims that the art is essentially (perhaps entirely) shamanistic in nature (Lewis-Williams 1980, 1981a, b, 1983a, b, 1984, 1986, 1988; Lewis-Williams & Dowson 1988, 1989; Lewis-Williams & Pearce 2004a). Lewis-Williams identified a series of motifs (appearing in isolation and in combination) that indicate a ‘pan-San’ conceptual unity for this rock art tradition (Lewis-Williams 1984: 227; see also Guenther 1999: 33) that spans thousands of years, and which occurs from Zimbabwe to the Cape. The concept of a pan-San cognitive system is still relevant to contemporary research, despite concerns over its appropriateness (Lewis-Williams & Dowson 1994: 207). It is invoked as an effective interpretative paradigm for imagery as varied as formlings in Zimbabwe (Mguni 2005, 2015) and swift-tailed images in the southern Cape (Hollmann 2005a, b). Research in this vein considers variation in the art as idiosyncratic manifestations of a broader underlying motivation for its production rather than evidence for regional difference in its own right.

In southern Africa, many researchers work in specific areas and forge connections between previously unexplored iconography or themes and our overall knowledge of San rock art, generally under the rubric of ‘shamanism’ (e.g. Mallen 2005; Eastwood & Eastwood 2006; Pinto 2014). Presentation of descriptive data is uncommon (cf. Pager 1989) and therefore subcontinent-wide regional comparisons cannot be made. The ‘shamanistic paradigm’ developed from an investigation of themes within the rock art of a particular geographical region—the southeastern mountains of South Africa. Researchers then linked these painted themes to Bushman/San ethnographic data (Lewis-Williams & Pearce 2008: 428). The subsequent expansion of the shamanistic paradigm to other parts of the subcontinent has led to the generalisation of the motifs and conventions of the art of the southeastern mountains to other geographical areas (Lewis-Williams & Pearce 2008: 428; Hampson 2013: 363). However, it is only through tackling individual panels at specific sites that new questions can be asked (Hollmann 2001; Lewis-Williams & Pearce 2008: 428).



Fig. 3. Map showing the research area in relation to the rock art region previously defined (Van Riet Lowe 1956; Rudner & Rudner 1970; Willcox 1984) western and southern Cape region and that of the Maloti-Drakensberg.

I therefore pay particular attention to a single, large panel of images at McAll's Cave. I tease out similarities and differences in this imagery with motifs found at other, specific rock art sites, locally and regionally. The regions chosen are the greater Western and southern Cape (Fig. 3) as defined by Van Riet Lowe (1956), the Rudners (1970) and Willcox (1984), and, further afield, the Maloti-Drakensberg. In the process I consider how the paintings at McAll's Cave 'fit' with the notion of a pan-San cosmology in southern African hunter-gatherer art.

METHOD

My surveys commenced in 2012, guided by a map made by Peter Heugh and Lew Knight in the 1960s² that depicts 19 painted sites in the Groendal Nature Reserve, accompanied by brief notes.³ Of these 19 sites, the 18 that fall within the reserve boundary were recorded; six additional sites were located within the reserve and 14 further sites were recorded outside the reserve, bringing the total to 38.

GPS location data were recorded for each site and all sites were photographed in ambient light and with a flash. Sites were recorded using standard Rock Art Research Institute (University of the Witwatersrand) site report forms; detailed site reports and quantitative studies were made at 28 of the sites, recording the numbers, characteristics and colours of animal, human, geometric, abstract and handprints or finger painted

images (Table 1). Animal species were recorded where possible, while others could only be assigned to a more general category, such as antelope (Table 2). Note was also made of the head type (Table 3) and sex of the human figures (Table 4). Field sketches were made of selected images at all sites. Detailed tracings were made of selected images at 16 of the shelters: these were chosen on the basis of quality of preservation (i.e. visibility in photographs) and whether they were representative of the art as a whole (both common and notably unusual features were chosen). McAll's Cave was recorded in its entirety.

Painted shelters in the Groot Winterhoek Mountains are rather widely scattered, often with only one or two in a valley. Scarcity of available rock overhangs may be an issue, but there are numerous localities that would apparently have made equally good places in which to paint. Painted shelters range from the large (which could comfortably sleep more than 10 people) to small overhangs. Larger shelters contain evidence of Later Stone Age occupation, including stone artefacts, ostrich eggshell beads and thin-walled pottery in surface scatters or eroding from the talus slope.⁴ Aspect does not appear to be strongly correlated with painting prevalence; despite a slight preferential bias towards north-facing shelters, sites were oriented in all directions (Fig. 4). There does seem to be a preference for shelters with tunnels or deep crevices going into the rock face, with at least 70 % of the shelters displaying either one or both of these features (see Ouzman 1997: 232; Hollmann 2005a: 31).

I focus here on McAll's Cave because of the unusually large number of images it contains. It is in a sense a 'microcosm' of the imagery in the area and contains examples of a wide range of imagery (in terms of the way the images are depicted, colours used and subject matter) found throughout the area. Therefore, rather than showing isolated images from a number of sites, I analyse the full site composition at McAll's Cave (see Blundell & Lewis-Williams 2001; Hollmann 2001; Lewis-Williams & Pearce 2004b, 2008, 2009; Hollmann & Lewis-Williams 2006; Pinto 2014 for similar studies of individual sites).

ANALYSIS OF THE IMAGERY OF McALL'S CAVE

McAll's Cave is west-facing and measures approximately 10 × 6 m at its widest and deepest; most of the shelter is less than 3 m deep. In the centre of the shelter there is a 1 m² opening leading into a low, dark chamber. All the paintings occur in areas where natural light is available, the majority being found on the southeast wall of the shelter; none are currently visible in the recessed 'cave'. The shelter contains paintings in dark red, red, yellow, white and black; with the majority of paint being red and yellow (Fig. 5, Table 1). This palette of colours is consistent with other sites in the Groot Winterhoek Mountains, as well as the greater southern Cape (see Bassett 2001; Hollmann 2001; Rust & Van der Poll 2011); earlier researchers have posited bright red paintings (along with smudgy red backgrounds) as diagnostic for the region as a whole (Burkitt 1928; Van Riet Lowe 1956; Rudner & Rudner 1970; Willcox 1984).

The shelter was divided into four sections or panels, based on geological structure and painting position. The largest contiguous painted area, which I call the main panel (Figs 6–10), contains 183 images and covers a total of approximately 7.5 m. It has been further subdivided into 13 clusters (A–M) to aid in discussion. A second panel

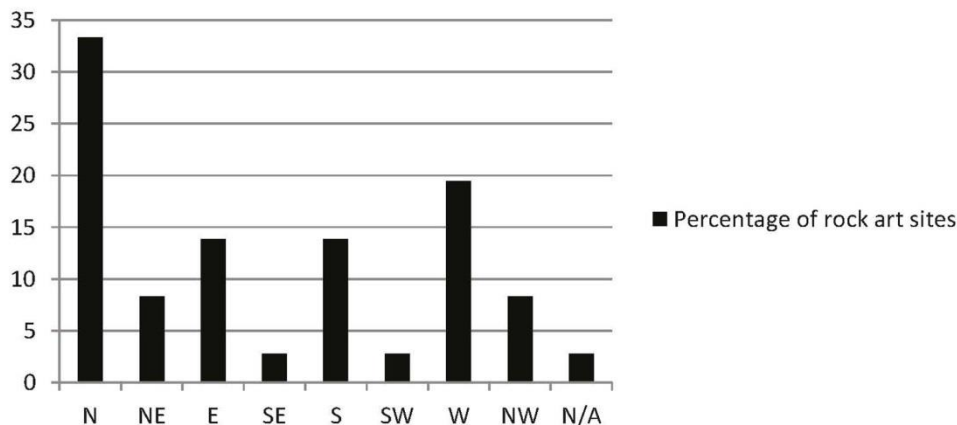


Fig. 4. Aspect of sites recorded in the Groot Winterhoek Mountains.

(Fig. 11) comprises six small (8–13 cm) yellow figures with red capes/cloaks. The rock on which the main panel is painted forms a slight overhang, under which the third panel, a small scene painted in dark red containing at least 19 human images is located (Fig. 12). The fourth panel is on the low ceiling (ca 2 m inside the shelter) and comprises at least 17 crawling human figures painted in red, yellow or red and yellow with the occasional detail in white, and two antelope in yellow and white (Fig. 13).

The main panel includes more than 100 human figures, for the most part painted in yellow or a light orange-red with striped markings on their bodies (Figs 5–10). Due to



Fig 5. Procession of the figures from the main panel in McAll's Cave (photo: G. Laue).



Fig. 6. Section 1 of the main panel at McAll's Cave. This section is in the furthest recesses of the shelter and shows the poorest preservation at the site. Solid black = red, stipple = yellow/light orange.

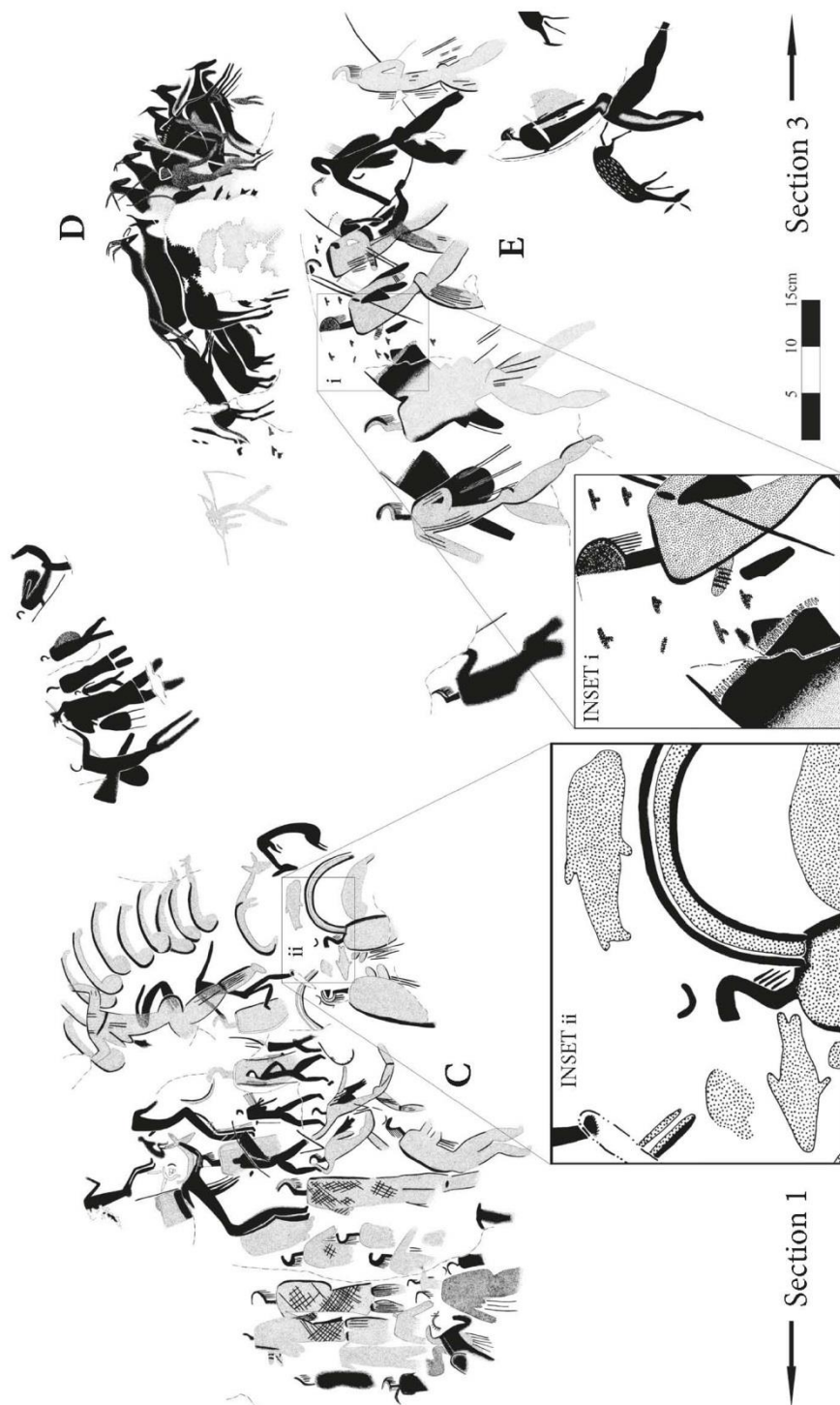


Fig. 7. Section 2 of the main panel at McAll's Cave. Solid black = red, stipple = yellow/light orange, outlined white space = white, dense stipple = black.

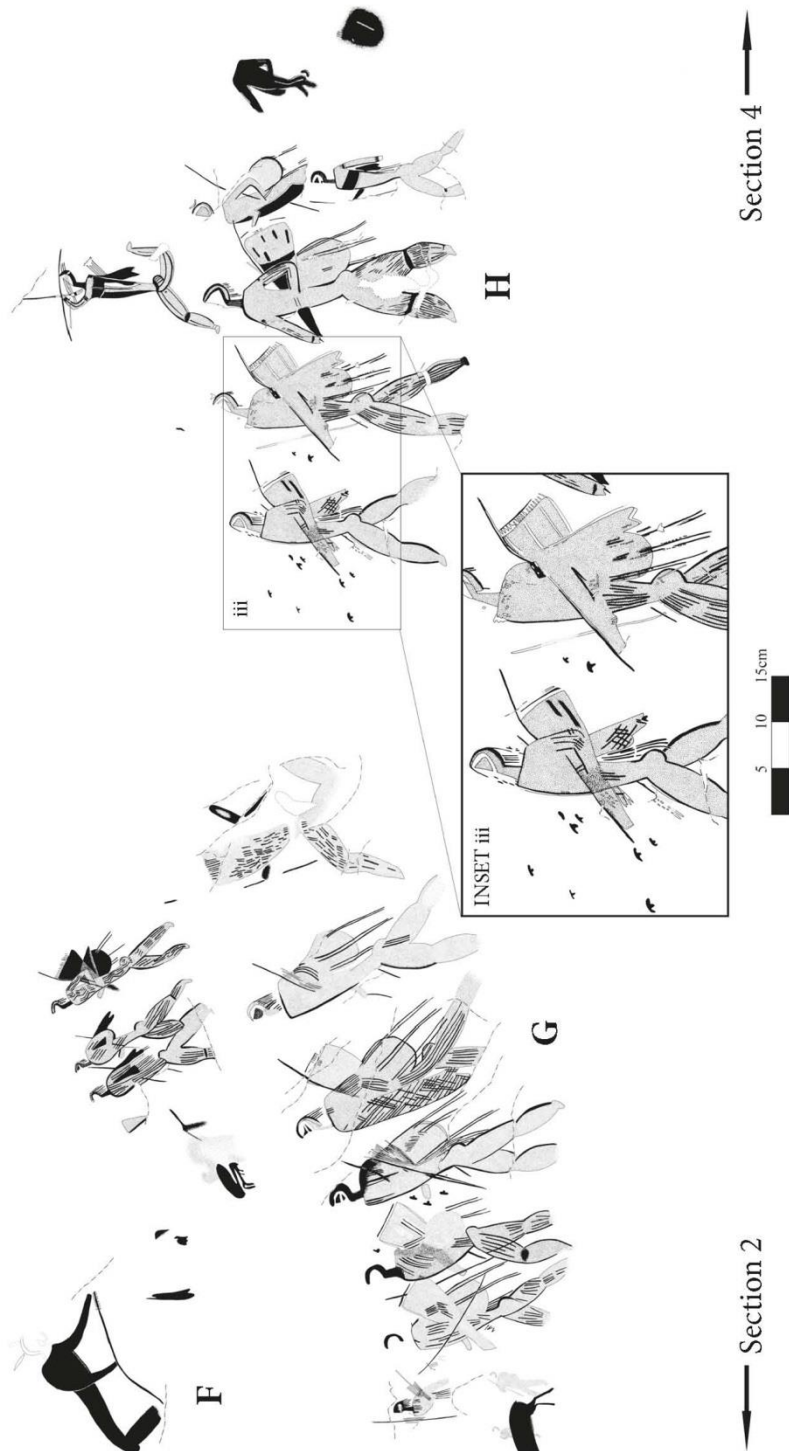
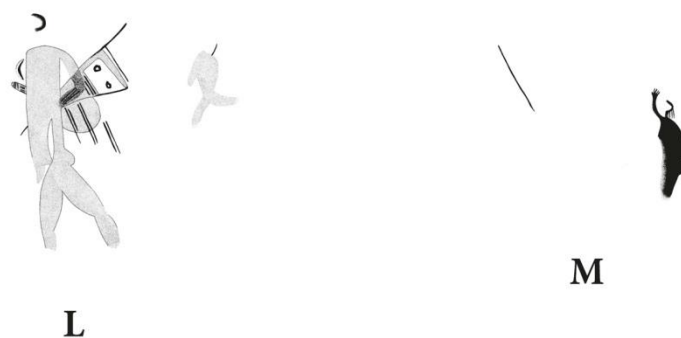


Fig. 8. Section 3 of the main panel at McAll's Cave. Solid black = red, stipple = yellow/light orange, outlined white space = white.



Fig. 9. Section 4 of the main panel at McAlli's Cave. Solid black = red, stipple = yellow/light orange, outlined white space = white.



← Section 4



Fig. 10. Section 5 of the main panel at McAll's Cave. Solid black = red, stipple = yellow/light orange, outlined white space = white.

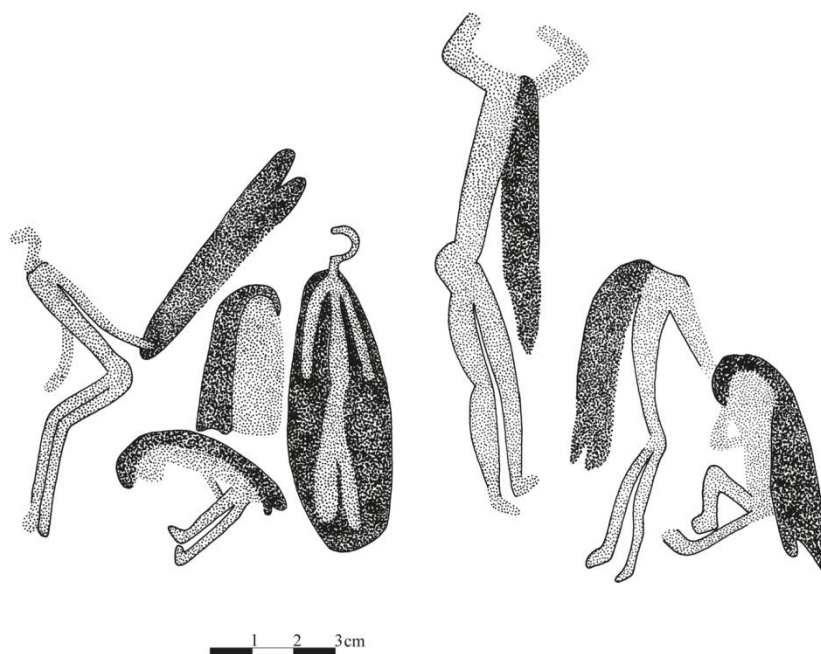


Fig. 11. Panel 2 is located on a step above the handprint in Fig. 9. Stipple = yellow, dense stipple = black.



Fig. 12. Panel 3 is located in the step below the part of the main panel shown in Fig. 9. Solid black = dark red.

poor preservation, these marks are only preserved on parts of their bodies: it seems likely, however, that when the images were painted, the stripes were more extensive. Where these details are preserved, their skin cloaks and karosses worn show a cross-hatched design. Many figures are, however, either unclothed or wear only a skin cloak (see Figs 7C, 11): Parkington and Manhire (1997: 303) suggest that cloaks may denote initiated men. This patterning on bodies and clothing is seen in other parts of the Groot Winterhoek, for example at Brommer Cave (Fig. 14), approximately 15 km to the west of McAll's Cave. Other types of body decoration have been recorded in the Groot Winterhoek Mountains (Fig. 15), but the majority of human images are monochrome (in some cases this may be due to differential preservation) (Table 1).

There are only two figures with unequivocal sexual characteristics: one female (denoted by breasts; Fig. 7C) and one male with an infibulated penis (Fig. 9I). Some argue

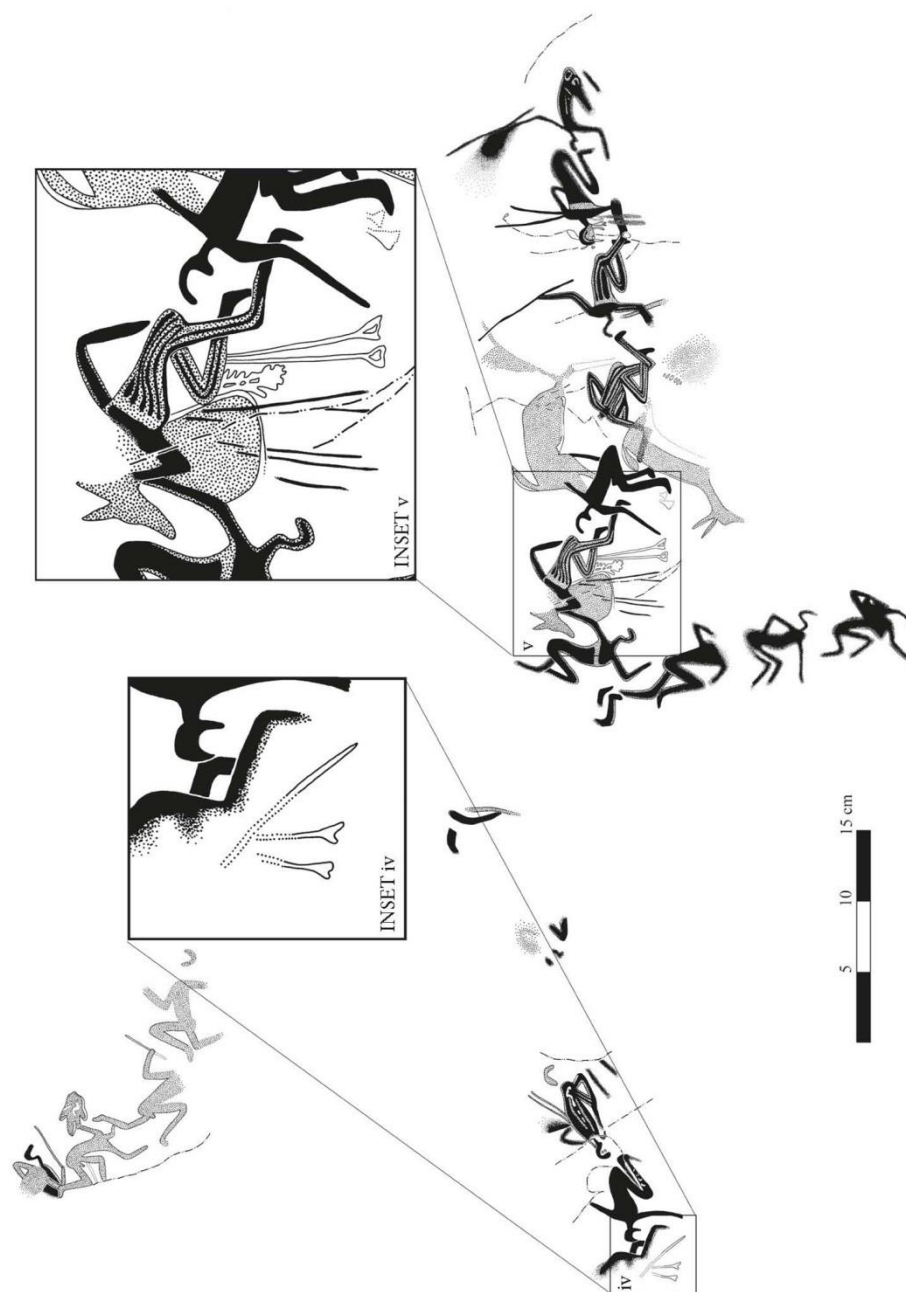


Fig. 13. Panel 4 is located on the low ceiling of McAll's Cave. Solid black = red, stipple = yellow, outlined white space = white.



Fig 14. Figures from a site about 15 km west of McAll's Cave with similar decorations to those at McAll's Cave on their karosses (photo: G. Laue).



Fig. 15. Elongated figure with microdots around the waist, and stripes and crosses on the legs. This image is from another site in the Groot Winterhoek Mountains. Solid black = red, outlined white space = white.

that certain items of material culture acted as tertiary sexual characteristics, suggesting that figures carrying bows and arrows were almost certainly male (e.g. Maggs 1967: 101; Humphreys 1996: 32), though this is not universally so (see Solomon 1994: 345; Stevenson 1995: 109; Thorp 2015: 182–3). My sex determinations were based upon breast/penis presence; many of the figures carry items of material culture that may reference gender, being associated with men and masculinity (Draper 1975: 80; Lee 1979: 205). Primary and secondary sexual characteristics are less frequently depicted in the Groot Winterhoek (Table 4) than in the Maloti-Drakensberg (but see Vinnicombe 1976) and the Cederberg (Fig. 16).

The human figures have hook-heads, a stylistic characteristic that has been used to define the art of the southern Cape region (Rudner & Rudner 1970: 179); in this study, they form just over 50 % of the discernible heads in the area (Table 3).⁵ Some of the

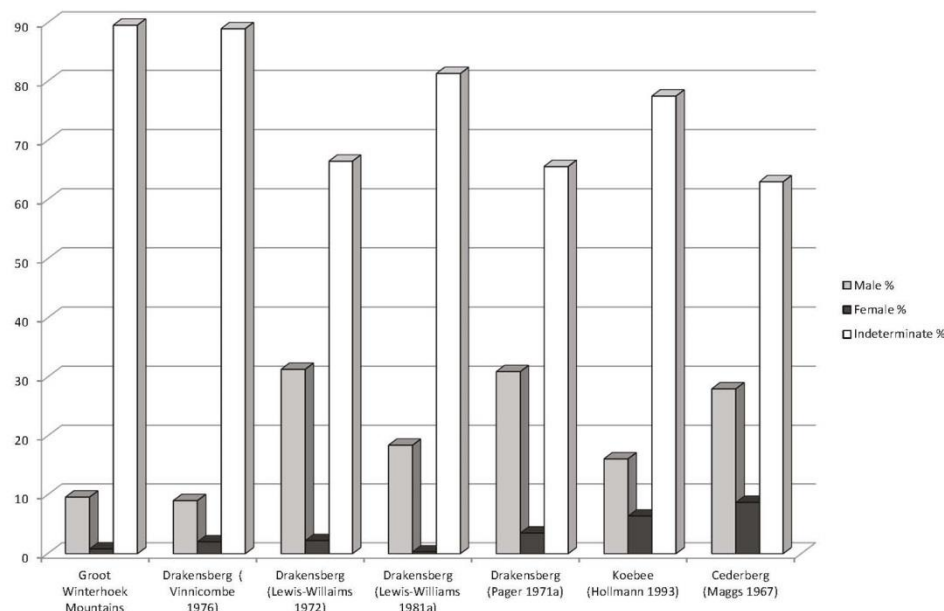


Fig. 16. Comparison of the percentage of females, males and indeterminate figures in the Groot Winterhoek Mountains with published data from the Maloti-Drakensberg and the Western Cape (Maggs 1967; Pager 1971a, b; Vinnicombe 1976; Lewis-Williams 1972; 1981a; Hollmann 1993).

hook-headed figures have the remains of a pigment fill in the hook (e.g. Fig. 7i) which suggests that many of the hook-heads may once have been filled with pigment, most probably white or black which often does not survive as well as the reds and yellows. Yates et al. (1985: 70) estimate that only 15 % of hook heads in the Cederberg survive in their original bichrome state; this pattern seems to be repeated in the Groot Winterhoek Mountains. Many of the figures have thongs or hair painted hanging down from the back of the head, comparable with Vinnicombe's (1967: 140) "hairstyles and headgear type 5": hair, thongs or flaps hanging down. Some of the figures (Figs 7C, 8G) have unusual crescent shapes on top of their heads. Hollmann (2001: 63) interprets similar shapes as possible head ornaments; in McAll's Cave, they do not touch the heads of the figures. They may have held a symbolic significance, perhaps as a regional idiom for depicting the spirit leaving the head during trance (see Lewis-Williams 1983b: 7).

Most of the figures on the main panel have at least one kind of bag: either a round carrying bag used by both sexes, a men's conical hunting bag (Lewis-Williams & Dowson 1989: 114; Lewis-Williams & Pearce 2008: 429), or sometimes both (Figs 6–10). The hunting bags are shown with a bow and large numbers of arrows, the painting of which follows a local stylistic convention: black tips and white shafts, with a red dot indicating the groove cut for the bowstring (Figs 8H, 17). When painted protruding from hunting bags, all that can be seen of the arrow is the end of the shaft, the red dot, and (in some cases) a red line indicating the ends (Fig. 8H). Since white pigments seems to be more fugitive, depictions of arrows in bags are not always preserved; where they are, the bags seem to contain more arrows than would usually be carried by a San hunter (one of the better preserved images, Fig. 7Ei contains 39 arrows) (Steyn 1971:



Fig. 17. Note the arrows and antelope eared cap on this figure from another site in the Groendal Nature Reserve, Groot Winterhoek Mountains. Solid black = black, stipple = red, outlined white space = white.

300; Marshall 1976: 144; Wiessner 1983: 263). Arrows are not simply weapons, but are (and were) integrated into all aspects of ritual and belief (Deacon 1992: 17; see also Lewis-Williams & Bieseke 1978; Eastwood 1999). Just as paintings showing multiple fly-whisks are thought to show the non-reality of the image (Lewis-Williams 2002: 152), multiple arrows likely denote the power or potency of the individual carrying the bag.

Rounded carrying bags are commonly painted in the area, both in isolation and in association with human figures. Such bags probably referenced trance and visits to the spirit realm (Lewis-Williams & Dowson 1989: 116–7; Lewis-Williams & Pearce 2008: 429), as symbols of transformation and the transition between realms (Lewis-Williams & Pearce 2004a: 120, 126–8; Lewis-Williams & Pearce 2012: 81); depictions of full hunting bags may have “connoted good luck and well being” (Hollmann 2001: 66). Note the bag in Figure 13 from which an antelope head seems to be protruding (see also Fig. 18); these images are unlikely to reflect reality, rather they point to the transformative qualities of bags.

The bags are often painted with tassels or cords hanging from them, still frequently seen on animal skin bags made by the San (Lewis-Williams & Pearce

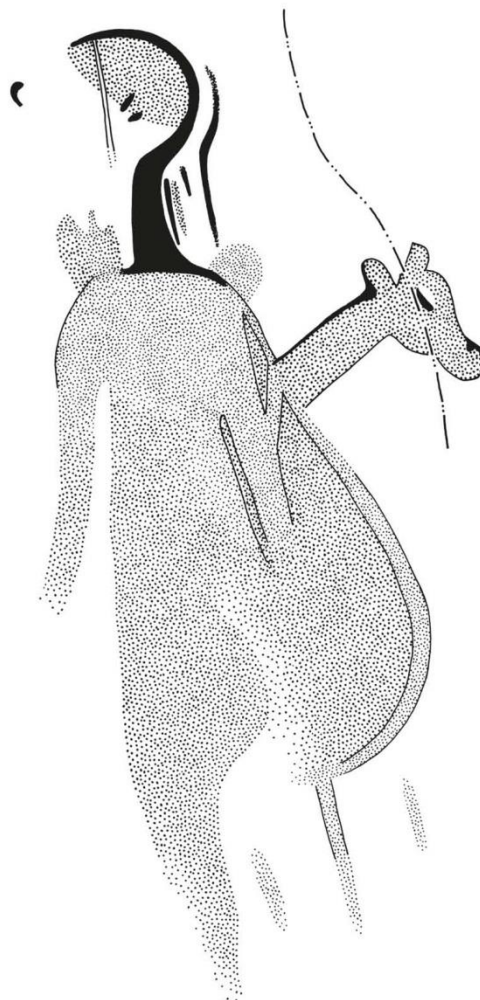


Fig. 18. Note the antelope head sticking out of the bag from a site a few kms from McAll's Cave. Solid black = black, fine stipple = red, coarse stipple = yellow, outlined white space = white.

2008: 429). In the case of the central image in Figure 8Hiii and in Figures 13iv and 13v, cordiforms are attached to these cords. Cordiforms occur at a number of sites in the KwaZulu-Natal Drakensberg (e.g. Pager 1975: 10–11, 25, 55, 61) and Lewis-Williams (2012: 27) suggests that these might represent small antelope hooves. The tassels in McAll's Cave and the Groot Winterhoek Mountains in general are painted in a similar way to the underarm emanations associated with some figures (Figs 6B, 7C, 14). I interpret these lines from under the arm as sweat, which echoes the ethnographic belief that sweat—especially from the armpits—was a particularly potent substance (Lewis-Williams 1980: 471, 1981a: 77, 81). The association between sweat and tassels suggests that the latter were depicted for reasons beyond the quotidian.

Many of the human images in Figures 7–9 show coherence in size (ranging from 180 mm to 320 mm high), body decoration and colour. They form a procession (cf. Parkington & Manhire 1997: 307) moving in a single direction (right to left) across the rock face, comprising at least 34 human figures painted over 4.7 m of the shelter (Figs 7F, 8G, 8H, 9I, 9K, 11L). Parkington and Manhire (1997: 307; see also Parkington et al. 1996: 223) suggest that these processions refer to initiation ceremonies, while groups of images suggest trance dance scenes. Their interpretation relies heavily on Schapera's (1930: 122–8) and Bleek's (1928: 23–5) descriptions of boys and girls initiation ceremonies, both of which include dances; I, however, believe that the procession at McAll's Cave relates to the trance dance: the area of activity (Fig. 7C) towards which the procession is moving—along with associated imagery—is redolent with trance dance motifs discussed further below.

The trance or healing dance is recorded in a number of historical and ethnographic accounts (e.g. Arbousset & Daumas 1846: 353–4; Stow 1905: 119; Katz 1982; Katz et al. 1997: 17–27; Marshall 1999: 63–90); all descriptions suggest a similar pattern, usually that women sat around the fire singing and clapping, while men danced in a circle to activate their *n|um* (supernatural power) and enter trance (Katz 1982: 35). The depiction of a trance dance in McAll's Cave (Fig. 12), under the ledge of the main panel, is one of at least three recorded in the research area. It is small, less than 20 × 20 cm, and painted entirely in dark red; if any other colour was used it has now entirely disappeared. To the left there are nine figures, at least seven of which have their arms stretched out in a classic clapping posture (Lewis-Williams & Pearce 2004a: 83, fig. 5.1); on the right are at least 19 figures which appear to be dancing. Figure 19 shows a dance scene from a neighbouring shelter. On the left there are 11 small figures bending forwards slightly with their arms outstretched in a clapping position. On the right are five figures in the bending forward dancing posture; one seems to be holding dancing sticks and one (possibly two) seem to be wearing an antelope-eared cap.

More common than entire dance scenes are what Lewis-Williams calls “fragments of the dance” (Lewis-Williams 1998: 87; Lewis-Williams & Pearce 2004a: 99–100). These fragments—the arms-back posture, flywhisks, bleeding from the nose and bending forward postures—stand in for depictions of the rituals connected with accessing the spirit world (Lewis-Williams & Pearce 2004a: 99). The depiction of bleeding from the nose and flywhisks is rare in the rock art of the Groot Winterhoek Mountains, but other fragments of the dance occur. In Figure 7C there are at least three figures bending forward (and one of these figures has arms in a backward position); the distorted antelope on the right is also reminiscent of the bending forward position, strongly associated with the trance dance (e.g. Katz 1982: 98; Huffman 1983: 50; Lewis-Williams 1981a: 78, 1984: 236). Many of the human images in Figure 13 are in the bending forward posture, while others are depicted either crawling or kneeling.

The arms back posture is adopted when *n|um* is entering the body or when one is asking god for *n|um* (Lewis-Williams 1981a: 88). This is seen most clearly in the dance scene in Figure 12. Many of the ‘dancers’ are painted with only one arm (also see the group scene in Fig. 7C), which could be an attempt to show this posture. The hand-to-nose gesture is another posture that recurs in many of the rock paintings of the Maloti-Drakensberg (Lewis-Williams 1983b: 7) and the Cederberg (Yates et al. 1985:



Fig 19. Trance dance scene from another site in the Groendal Nature Reserve. This is a false colour image produced using Dstretch. The smudging on the rock makes the figures difficult to distinguish in an unenhanced picture (photo: G. Laue).

74); it is believed to represent the dance. Although this posture is not common in the Groot Winterhoek Mountains, it occurs twice in Figure 7C.

Other possible trance motifs also occur, including two depictions of figures with 'ears' or 'antelope-eared' caps (Figs 7C, 7E; see also one of the crawling figures in Figs 13 and 17). Lewis-Williams (2002: 66) suggests that the Maloti-Drakensberg antelope eared caps represent the relationship between shamans and animals. Alternatively, they may represent the control of the power of certain antelope (Lewis-Williams 1980: 447, 1981a:77; 1981b: 7), a concept that is taken to extremes in the depiction of therianthropes. The associated images of these two 'antelope-eared capped' figures at McAll's Cave and the rarity of antelope therianthropes confirms work by Yates et al. (1985: 72) that antelope eared caps are "to some extent equivalent to the therianthrope concept".

Both of the antelope-eared figures are associated with non-real features. Figure 20 (close-up of Fig 7C), the centre of much activity, is bending forward and has a long-necked antelope head extending out from the neck. This image is unlike the antelope therianthrope depictions of the Maloti-Drakensberg (e.g. Vinnicombe 1976; Lewis-Williams 1981a) and it is clear that the figure does have a human head, albeit with antelope ears. The antelope neck seems to be emanating from the *n||ao* spot at the base of the neck, an area from which Kalahari shamans believed they would expel the arrows of sickness during the healing process (Marshall 1969: 370; Bieseke 1993: 109; Lewis-Williams & Pearce 2004a: 148; see Lewis-Williams 1981a: 94–5 for evidence of a |Xam belief in a similar spot). There are very few antelope-headed therianthropes in Western and southern Cape art



Fig. 20. Close up of an antelope eared figure from Fig. 7 C. Solid black = red, stipple = yellow, outlined white space = white.

traditions (Yates et al. 1985: 73), and this is echoed in the current area, with only two exemplars observed (Fig. 21). Figure 20 may represent the feeling of transformation experienced during a trance state, which is expressed by paintings of therianthropes in other regions of southern Africa (Lewis-Williams & Pearce 2004a: 44).

The second figure with antelope ears (Fig. 22, close-up of Fig. 7E) is bending forward and holding a red line fringed with white dots. DStretch manipulation (Harman 2006) indicates that the dots extend at least down to the second hand and possibly beyond. This line curves and disappears into a step in the rock below, and is thus unlikely to represent a bow, stick or spear. Similar images occur in the Maloti-Drakensberg area, and are thought to represent lines of potency or the threads of light that shamans travel along to enter the spirit world (Lewis-Williams 1981b; 1984: 227–8; Lewis-Williams et al. 2000). Lines connecting figures in the southern and Western Cape have been likened to the “thin red line” found in the

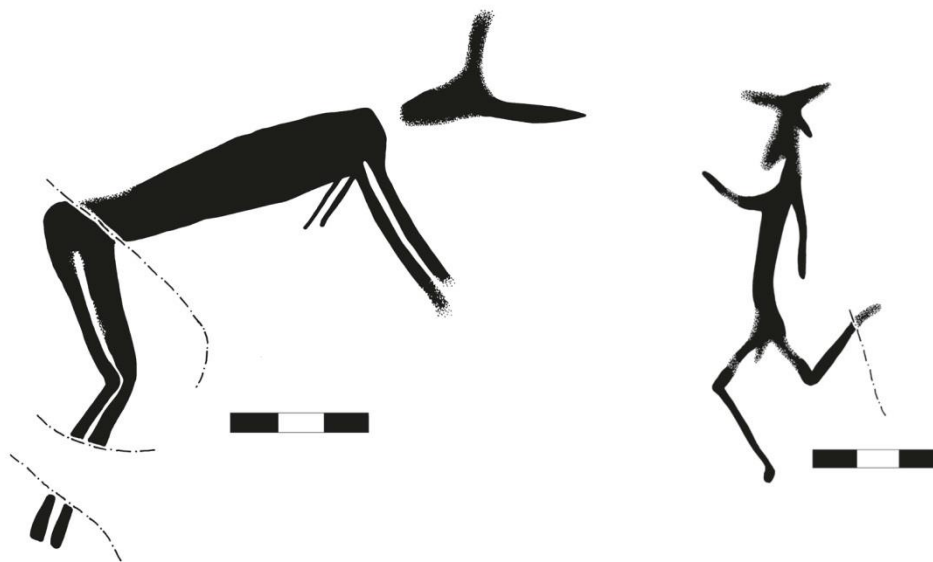


Fig. 21. Antelope therianthropes from two different sites in the Groot Winterhoek Mountains. Solid black = red.



Fig. 22. Close up of an antelope eared figure holding a 'thin red line' from Fig. 7 E. Solid black = red, outlined white space = white.

Maloti-Drakensberg area (Yates et al. 1985: 76; Hollmann 2001: 65), but a major difference is that the lines mentioned by these authors are not fringed with dots. The red-line/white-dots depiction at McAll's Cave is the only example I know of outside the Maloti-Drakensberg region, and it may thus be the most southerly and westerly known example of this motif. Further non-real imagery at the shelter includes two fish⁶ (Fig. 7Cii), painted as if they are swimming around the heads of two figures. Lewis-Williams and Dowson (1989: 54–5; see also Challis et al. 2008: 210) have argued that 'underwater' is a metaphor for trance, given that a trance state may include sensations of weightlessness and breathing difficulties, akin to the feeling of being underwater (Lewis-Williams & Dowson 1988; 1990: 11). There are other depictions of 'underwater' imagery in the survey area, as well as metaphors of trance such as flight (Laue 2016) and death (indicated by animals painted upside down).

There are 27 T-shaped images in the main panel (Figs 7D, 7Ei, 8Hiii). The images are uniform, measuring approximately 10 mm across and 5–7 mm high. These may represent insects, which are a widespread—albeit uncommon—component of southern African rock art (Vinnicombe 1972: 196; Pager 1973; Lewis-Williams & Dowson 1992: 52–3; Mguni 2005, 2013; Hollmann 2007, 2015). Ethnographic accounts describe insects as a viable food source (McGranaghan 2014), although the transformative qualities they display during their life cycle may have been seen as representing the "symbolic embodiments of healers, or even their spirits" (Mguni 2013: 171). Neuropsychological reports of a buzzing noise accompanying altered states of consciousness may have been connected to insects (Lewis-Williams & Dowson 1989: 62, 1992: 52–3). The fact that the 'insects' are in such close association with certain figures in the procession tends to suggest that there is something special about these figures, possibly a heightened trance state.

Figure 8H shows a figure shooting an arrow directly into a step in the rock face (Fig. 23). Exploiting topographical features of the rock surface is also seen elsewhere in the Groot Winterhoek Mountains (Fig. 24), in the Maloti-Drakensberg (e.g. Vinnicombe 1976: 228; Lewis-Williams 1981: 85; Lewis-Williams & Dowson 1990) and the southern Cape (Laue 1999: 58–9). Lewis-Williams and Dowson (1990) argue that the rock surface was perceived to be a veil suspended between the spirit world and this world; therefore, the deliberate incorporation of natural rock features into paintings provides an additional shamanistic context for Groot Winterhoek Mountain art.

CHARACTERISING THE ROCK ART OF THE GROOT WINTERHOEK MOUNTAINS

Human figures outnumber animals throughout the rock paintings of southern Africa. This trend is particularly visible in the survey area (77 % human to 23 % animal; Table 1) and is even more exaggerated at McAll's Cave (86 % human to 14 % animal). In this respect, the Groot Winterhoek Mountains group with other sites in the Western and southern Cape region rather than the Maloti-Drakensberg, where humans only slightly outnumber animals in rock art (Fig. 25).

At 61 %, by far the largest category of identifiable animals in the Groot Winterhoek Mountains is antelope (Table 2), but preservation makes identification to species difficult, except in the case of eland. Eland are more likely to be painted as bichromes with the head and lower legs painted in white. Percentages of eland, out of the total antelope,



Fig. 23. Colour photograph of an arrow being shot into a crack (see Fig. 8 H for context) (photo: G. Laue).

are much lower in the Groot Winterhoek Mountains at 14.3 % compared to between 45.8 % (Vinnicombe 1976 364) and 61.7 % (Lewis-Williams 1981a: 135) in the Maloti-Drakensberg, and 25 % in the Koebee area of Western Cape (Hollmann 1993: 20). Only one shaded polychrome eland has been identified in the Groot Winterhoek Mountains so far (Laue 2016: fig. 10). The rarity of this style of painting in the Groot Winterhoek contrasts markedly to the Maloti-Drakensberg where samples show that 20 % or more of the animals were shaded (Lewis-Williams 1972: 51; Vinnicombe 1976: 362). In this respect



Fig. 24. Human figure walking out of a crack in the rock from a nearby shelter (photo: G. Laue).

the art of the Groot Winterhoek Mountains is more similar to that of the Western and southern Cape region where only three shelters with shaded polychrome antelope have been identified (Mazel 2009: 111; Bassett 2001: 48; J. Deacon pers. comm., October 2017).

Although no eland are found in McAll's Cave, individual faded animals are scattered throughout the panel, with a concentration of 14 antelope in Figure 7D. While only two of these can be positively identified as hartebeest (horn shape), the body shape—back sloping down from the shoulder hump to the hindquarters—of the others suggest that they too are hartebeest. Like the majority of animal images in the Groot Winterhoek Mountains (Table 1), the hartebeest bodies are painted in monochrome red (where horns are visible they are black). Bichrome animals, such as those in Figure 13, make up the next highest percentage.

The mammal images in the Groot Winterhoek Mountains are painted from a lateral (side-on) viewpoint. This is the most common way of depicting antelope in southern

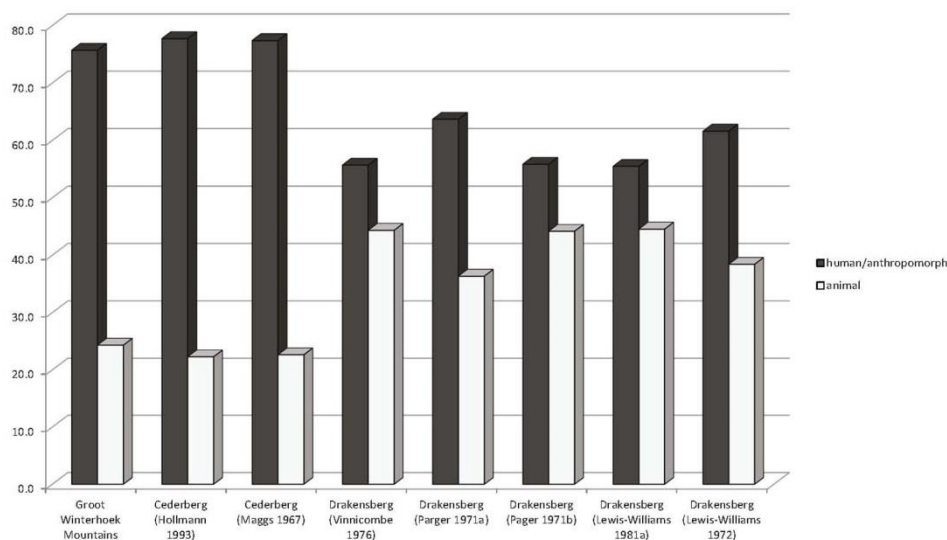


Fig. 25. A comparison of animal vs human figures from the Groot Winterhoek Mountains as compared to other studies in the Western Cape and Maloti-Drakensberg (Maggs 1967; Pager 1971a, b; Vinnicombe 1976; Lewis-Williams 1972; 1981a; Hollmann 1993).

Africa and in other parts of the world (Deregowski 1995: 4). How people draw is culturally constrained, but it is also conditioned by the object being drawn (Clegg 1995: 11). But there is evidence that there are certain ways of drawing images that are more common or “certain views of a bottle are more bottle-like than others” (Deregowski 1995: 3). Similarly, it can also be said certain views of antelope are more antelope-like than others. The lateral view, in the case of an antelope, is the one which includes a large number of features that make it identifiable (Smith 1998: 215) and thus is it not surprising that this is the most usual method of depiction. The rare front and back views of antelope seen in the Drakensberg (see Pager 1971a: 330) are a regional variation seldom if ever seen in the rest of the sub-continent and have not been noted in the Groot Winterhoek Mountains.

The hartebeest in Figure 7D seem to have been intentionally superimposed on each other, something that has been noted in the Maloti-Drakensberg (Smits 1971: 17–8; Pager 1971a: 327; Vinnicombe 1976: 204; Lewis-Williams 2002: 151). The bipedal stance of several quadrupedal animal images may represent the transformative process during trance—from animal to human and back—and the altered state of consciousness in which “a single form (figure, object) may be duplicated or multiplied, that is its size may change or its shape may be altered or distorted” (Kluver 1966: 72).

This area’s relative lack of superimposition compared with the paintings of the Maloti-Drakensberg suggests similarities with the corpus of paintings in the Western and southern Cape, where superpositioning is also rare (Manhire 1981: 19). In the Maloti-Drakensberg, by contrast, it commonly occurs, in up to seven layers (Russell 2000: 68). While superimposition has been used to compile relative regional chronologies (see Thackeray 1983; Russell 2000; Swart 2004; Flett & Letley 2013), these could be problematic, since superimposed sequences are an “active

product of meaning construction” (Blundell et al. 2010: 3); superpositioning is not random—rather it is purposeful and conveyed meaning (Lewis-Williams 1974; Pager 1976; Loubser 1993).

The smudging and touching of images in the Western and southern Cape region, as well as the presence of handprints and finger dots, may have—in a similar way to superpositioning—been a means of accessing the potency stored in the pigment of the lower rock art images (Yates & Manhire 1991); this form of interaction with the art is rare in the Drakensberg-Maloti area (cf. Pearce & George 2011; Lewis-Williams & Dowson 1990), but is a feature of the Groot Winterhoek sites (Fig. 26). Both practices reflect engagements that consumed or ‘used’ extant rock art, incorporating the potency of the underlying image and transferring it through subsequent rock art interventions.

Handprints are common in the Groot Winterhoek Mountains and occur at 54 % of the sites in the survey area, with up to 96 prints per site. In this respect, the art resembles that of the Western and southern Cape (e.g. Willcox 1959; Maggs 1967: 103; Hollmann 1993: 22; Manhire 1998: 99). Handprints are very rare in the Maloti-Drakensberg area: Pager (1971a: 337) found only four handprints in the whole of his research area, and none were recorded by Vinnicombe (1976) or Lewis-Williams (1981a). According to Lewis-Williams and Blundell (1997), handprints combined three important conceptual elements: the human hand, paint and the rock surface. Touching the rock may have served as touching of the veil argued to separate the ‘ordinary world’ from the spiritual realm, assisted by the potency of the paint itself (Lewis-Williams & Blundell 1997: 53). To these researchers the creation of a handprint is secondary in significance to the actual process of making the handprint in the context of a multi-component ritual (Lewis-Williams & Blundell 1997). The paint was made from powerful substances such as eland blood (How 1962), and was then placed on the hand and sometimes patterned with shapes (nested U-shapes most commonly); the hand was then placed on the rock face or ‘veil’ (Lewis-Williams & Blundell 1997), fixing potency to the walls of the shelter or drawing it from the spirit world.

The authorship of handprints is much debated (e.g. Willcox 1959; Van Rijssen 1994; Manhire 1998; Smith & Ouzman 2004), with some researchers arguing they were made by herder people rather than San hunter-gatherers. This debate is beyond the scope of this paper, but in the Groot Winterhoek Mountains, I suggest that handprints exist firmly within the San art tradition.

The rock art of McAll’s Cave and the Groot Winterhoek Mountains in general (Table 5) fits well within the shamanistic paradigm of interpretation: trance postures and trance metaphors abound in the form of the antelope-eared images (Figs 20, 22); there is an emphasis on transformation (e.g. the hartebeest in Fig. 7D), and there is underwater imagery, amongst others. Figure 12 contains one of only three depictions of a full trance dance in the research area, suggesting that McAll’s Cave may have held special significance. The unusually large and varied amount of art may be due to the location, in this case a shelter that is different from the others in the area, having an especially deep cavity at the back and large relatively unbroken surfaces available for painting (see Morris 2016: 269).



Fig. 26. A group of figures that have been smudged and rubbed from a nearby shelter in the Groot Winterhoek Mountains (photo: G. Laue).

CONCLUSION

This paper introduces the art of the Groot Winterhoek Mountains and gives a general overview of the art of the research area. In addition it identifies similarities and differences between it and the better-studied art of the Western and southern Cape and the Maloti-Drakensberg. It is therefore also a starting point for a more thorough investigation into regional differences.

I have shown that the art of McAll's Cave and the greater Groot Winterhoek Mountains fits within the pan-San shamanistic framework and shows similarities with both the Western and southern Cape and the Maloti-Drakensberg (Table 5). Despite being physically closer in distance to much of the art in the Maloti-Drakensberg, the rock art of the Groot Winterhoek Mountains has much more in common with the art of the Cederberg in particular, and, more generally, with that of the Western and southern Cape in terms of content, pigment colour and manner of depiction (Laue 2016).

The presence of the thin red line (red line fringed with white dots) nevertheless suggests that there may have been knowledge exchange between Groot Winterhoek and Maloti-Drakensberg painters. The very specific way these lines are painted makes it unlikely that the concept was individually conceived by different artists (Lewis-Williams 1981b: 12). It is more likely that this idea was conceived in one place and then spread. Another possible indicator of a connection is the presence of a single shaded polychrome eland (Laue 2016: fig. 10), an image seldom seen outside the Maloti-Drakensberg. Major differences to the Maloti-Drakensberg include the apparent paucity of human figures bleeding from the nose, in the arms-back position, in the hand-to-nose posture and the lack of therianthropes.

The presence of handprints and scarcity of therianthrope images are two characteristics that the art of the Groot Winterhoek Mountains shares with imagery in the Western and southern Cape. Unlike the Maloti-Drakensburg, very little superpositioning is found in the paintings in the Groot Winterhoek Mountains and the Western and southern Cape.

The variability of modes of expression between the research area, the Western and southern Cape, and the Maloti-Drakensburg means that style must be considered when investigating regional difference, as very common elements—human figures, for example—are present all over southern Africa but the manner or ‘style’ in which they are depicted varies widely. Human figures have a high proportion of ‘hook-heads’, reminiscent of this feature in human figure depictions in the Western and southern Cape, and the equipment, in terms of bags and hunting gear, is similar to both that of the Western and southern Cape as well as the Maloti-Drakensburg. Colour is something that strongly contributes to the ‘look’ of an image. Early studies note the bright red colour in the Western and southern Cape paintings (e.g. Burkitt 1928; Van Riet Lowe 1952) and which differs from the darker red more commonly used in the Maloti-Drakensburg. A predominance of bright red is also a characteristic of the art in the Groot Winterhoek Mountains, as is the more frequent use of yellow pigment. Another distinctive feature of the Western and southern Cape paintings, noted by earlier regional studies, is the seemingly less sophisticated way that the images are formed (e.g. Burkitt 1928: 152; Willcox 1984: 181) relative to those in the Maloti-Drakensburg. The lack of shaded polychromes has been noted, as well as the nearly ubiquitous use of the lateral profile for animal images, which suggests a contrast with the Maloti-Drakensburg rock art where front and back views are seen.

NOTES

¹ Both terms, San and Bushman, have carried pejorative connotations in the past. I use the term San in this article but reject any negative associations the word may have. I also note that the ethnographically described San hunter-gatherers are not Stone Age relics and there are problems with projecting these names far back in time (see Pargeter et al. 2016).

² Werner Illenberger 2016, pers. comm.; this map is now in possession of the Eastern Cape Division of the Mountain Club of South Africa.

³ For example, McAll’s Cave has the following description: “PRINCIPAL PAINTINGS: procession of figures, STATE: good”.

⁴ No subsurface excavations were performed as part of this project.

⁵ Compare with only 0.4 % in Ndedema Gorge (Pager 1971a: 333) and 18.3 % in the Barkly East area (Lewis-Williams 1981a: 135).

⁶ There are possibly two additional fish in the panel, but they are too faded to make a positive identification.

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TABLE 1
Percentages from a sample of 28 sites in the Groot Winterhoek Mountains including McAlli's Cave.

Subject	Anthropomorphs		Animal		Miscellaneous		Hand/Finger Marks		Total	
	No. of representations									
	1201	43.48 %	362	13.11 %	497	17.99 %	702	25.42 %	2762	100 %
STYLE										
Monochrome	1007	83.85 %	277	76.52 %	459	92.35 %	702	100.00 %	2445	88.52 %
Bichrome	131	10.91 %	81	22.38 %	32	6.44 %	0	0 %	244	8.83 %
Poychrome	63	5.25 %	3	0.83 %	6	1.21 %	0	0 %	72	2.61 %
Shaded	0	0 %	1	0.28 %	0	0 %	0	0 %	1	0.04 %
Total	1201	100 %	362	100 %	497	100 %	702	100 %	2762	100 %
COLOUR										
Black	101	7.05 %	26	5.79 %	52	9.35 %	66	9.43 %	245	7.81 %
White	99	6.91 %	69	15.37 %	77	13.85 %	2	0.29 %	247	7.87 %
Red	1048	73.18 %	307	68.37 %	380	68.35 %	600	85.71 %	2335	74.43 %
Yellow	182	12.71 %	47	10.47 %	43	7.73 %	32	4.57 %	304	9.69 %
Other	2	0.14 %	0	0 %	4	0.72 %	0	0 %	6	0.19 %
Total	1432	100 %	449	100 %	556	100 %	700	100 %	3137	100 %

TABLE 2

Breakdown of animals seen in the art in sample of 28 sites in the Groot Winterhoek Mountains including McAll's Cave.

Animal	Number	Percentage
Indeterminate animal	84	23.20 %
Antelope	222	61.33 %
Buffalo	1	0.28 %
Lizard	1	0.28 %
Fish	5	1.38 %
Baboon	19	5.25 %
Elephant	9	2.49 %
Bird	20	5.52 %
Snake	1	0.28 %
Total	362	100 %

TABLE 3

Percentage of different head types from sample of 28 sites in the Groot Winterhoek Mountains including McAll's Cave.

Head type	Number	Percentage
Concave	19	2.70 %
Round	307	43.55 %
Hook	359	50.92 %
Other	20	2.84 %
Total	705	100 %

TABLE 4

Sex of anthropomorphic figures from sample of 28 sites in the Groot Winterhoek Mountains including McAll's Cave.

Subject	Number of images	Percentage
Male	114	9.49 %
Female	9	0.75 %
Indeterminate sex	1066	88.76 %
Therianthrope	12	1.00 %
Total	1201	100 %

TABLE 5
Summary of shamanistic imagery at McAll's Cave and the Groot Winterhoek Mountains in general compared to the Maloti-Drakensberg and the Cederberg.

Shamanic imagery	Maloti-Drakensberg	Western Cape	McAll's Cave	Groot Winterhoek Mountains Sites
Excess of equipment suggesting potency and power	Excess of fly whisks (Lewis-Williams 2002: 152)	Found (e.g. Bassett 2001:49; Deacon pers.com. Oct 2017)	Excess of arrows Figure 7 F and 8G and H)	Large hunting bags are seen at other sites but preservation is poor and the number of arrows cannot be seen.
Rounded carrying bags: possible symbols of trance and visits to the spirit realm	Bags as symbols of transition between the realms (Lewis-Williams & Pearce 2004: 120, 126-128; Lewis-Williams & Pearce 2012: 81)	Full hunting bags may have "connoted good luck and well being" (Hollmann 2001: 66)	Many of the human figure carry large rounded bags with tassels.	Rounded carrying bags are seen at a number of sites both carried and alone
Sweat from the armpits	Sweat from the armpits is used in healing (Lewis-Williams 1980:471, 1981a: 81)	Sweat representing trance potency (Yates et al. 1985: 74; Hollmann 1993:18)	Found (Figure 7 C)	Found
Procession	Commonly found (e.g. Dowson 1994: 338).	Commonly seen (e.g. Parkinson & Manhire 1997)	This procession is the largest so far found in the Groot Winterhoek Mountains (Figures 7-10).	Most processions contain between 5 and 14 human figures
Trance or Healing Dance	Such depictions are rare but examples are known (e.g. Lewis-Williams & Pearce 2004: 83)	Not common but such scenes are seen (Yates et al. 1985: 76)	One clear depiction including clapping figures and dancers (Figure 12)	At least two other examples are present at other sites.
Bleeding from the nose	Seen at a number of sites (e.g. Lewis-Williams 1981a: 80-81)	Found although not as common as in the Maloti-Drakensberg (Yates et al. 1985: 71-72)	No examples	No unequivocal examples.
Arms back posture	Found (e.g. Lewis-Williams & Dowson 1989: 44)	Found (Yates et al. 1985: 71-72)	No unequivocal examples, but possible variations on this idea are shown in Figure 12 and 13.	Rare

TABLE 5 (*continued*)
Summary of shamanistic imagery at McAll's Cave and the Groot Winterhoek Mountains in general compared to the Maloti-Drakensberg and the Cederberg.

Shamanic imagery	Maloti-Drakensberg	Western Cape	McAll's Cave	Groot Winterhoek Mountains Sites
Bending forward posture	Found (e.g. Lewis-Williams & Dowson 1989: 40)	Found (Yates et al. 1985: 72)	Found (Figure 7 G and figure 11 and possibly Figure 13)	Found (e.g. Figure 20)
Hand to nose posture	Found (e.g. Lewis-Williams 1983b: 7-8)	Found (Yates et al. 1985: 72)	Found (Figure 7C)	Very rare
Therianthropes	Found (e.g. Lewis-Williams 1981a: 83-85)	Less common than the Maloti-Drakensberg, but found (e.g. Maggs & Sealy 1983:45; Yates et al. 1985: 73)	none	Antelope headed therianthropes are rare (only two examples), but bird therianthropes are seen at other sites (e.g. Laue 2016: 269)
Antelope eared caps	Found (e.g. Vinnicombe 1976:337; Lewis-Williams 2002: 65)	Found and is thought to possibly be equivalent to the therianthrope concept (Yates et al. 1985: 72)	Found (Figures 7 E and C)	Found (e.g. Figure 18)
Metaphors of trance: Fight, flight, underwater and death	All four are found (e.g. Lewis-Williams & Dowson 1989:50-59)	Fight & death imagery (Yates et al. 1985: 72,78) and flight metaphors (Hollmann 2005a, b).	Underwater metaphor (Figure 7 C)	Flight, death images are found at other sites (e.g. Laue 2016: 269)
Insect imagery	Found (e.g. Lewis-Williams & Dowson 1992: 52-53; Hollmann 2015b)	Found (e.g. Mguni 2013)	Found (Figures 7 D and F and Figure 8 H)	Found at a number of other sites
Use of the rock surface	Found (e.g. Lewis-Williams & Dowson 1990)	Found (e.g. Laue 1998: 58-59)	Found (Figure 7 E, Figure 8 H and Figure 25)	Found (e.g. Laue 2016:267)
Handprints	Very rare (Pager 1971a: 337)	Common (e.g. Willcox 1959; Maggs 1967: 103; Manhire 1998: 99)	Only one handprint (Figure 9 I)	More than half the sites contain handprints with one containing at least 96.
Thin red line	Found (Lewis-Williams 1981b; 1984a; 227-8; Lewis-Williams et al. 2000)	A variation on this, a plain red line is found (Yates <i>et al.</i> 1985: 76; Hollmann 2001: 65)	Found (figure 7 E and Figure 23; Laue 2016: 270)	No other examples have been found in the research area so far.

CHAPTER SEVEN:
COMMUNITIES OF PRACTICE AND REGIONAL
DIFFERENCE IN SAN ROCK ART

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BIRDS AND BLURRED BOUNDARIES: COMMUNITIES OF PRACTICE AND THE PROBLEM OF REGIONS IN SAN ROCK ART

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Abstract

Differences in southern African San rock art have long been noted, but defining these regions has met with little success. The interpretative approach that has dominated research in the last three decades focuses on similarities across space and through time rather than emphasizing difference. This paper considers the question of regionality in rock art and explores the how concepts of communities and constellations of practice offer tools to reconceptualise regional differences. These two concepts are applied to motifs of flight and transformation in three areas of rock art to interrogate difference and regional variation in the art.

Keywords

rock art, regions, communities of practice, boundaries, bird therianthropes

<1>Introduction

There is a lack of consensus on how to conceptualise differences between areas of southern African rock art. Until the 1970s, ‘style’ was used to create regions of San rock art (Burkitt 1928; Malan 1965; Rudner and Rudner 1970; Van Riet Lowe 1956). Loosely-defined regional rock art styles were explicated by culture-history models that linked painting styles to stone tool typologies (Laue and Blundell in prep). While many have examined regionally and locally specific motifs (e.g. Blundell 2004; Hollmann 2005a; Mguni 2015; Pearce 2009), regionality per se has been neglected. Recent approaches to regional difference have involved quantitative analysis (Laue 1999) or motifs (Hampson *et al.* 2002; 2015), but with limited success. Known regional differences do not match linguistic boundaries, and there is a consensus that known variability shows different details and expressions of similar beliefs (Smith 2006, 95). This view assumes that regional differences are passive—caused by cultural ‘drift’ through space (see Sackett 1985)—and thus do not account for motif spatial ranges, discontinuities in subject matter or contrasts in painting technique.

This paper seeks to re-examine the question of boundaries and regionality in rock art, using the concepts of communities and constellations of practice (Lave and Wenger 1991; Wenger 1998a). This is the first time this approach has been applied to southern African San rock art. I present a case study of three areas of rock art that contain motifs of flight and transformation and distinguish areas based on the details of the painted motifs. My purpose is to emphasize the relationship between human practice and the material product, rather than resorting to a culture-history view which relates difference to ethnicity or language.

<1>Communities of Practice

Cultures rarely exist within discrete ethnic and linguistic boundaries. Instead, there are overlapping communities of practice that do not necessarily share the same spheres of influence (Stahl 2009, 250). Wenger (1998b, 2) provides three components that make up a community of practice:

1. A “joint enterprise as understood and continually renegotiated by its members”.

2. “relationships of mutual engagement that bind members together into a social entity”.
3. “a shared repertoire of communal resources that members have developed over time”.

Scholars use the idea of communities of practice to investigate ways of everyday learning that occur through ‘legitimate peripheral participation’; novices emulate skilled practitioners until ready to be fully integrated into a community of practice (Lave & Wenger 1991, 29, 47; see also Roddick and Stahl 2016, 7). Individuals or groups may engage in multiple communities of practice (Stahl 2013, 54–5), the development of which can shed light on spatial and temporal variability in rock art.

Communities of practice are based on *participation* rather than factors such as geography, gender, social class and ethnic groups (Wenger 1998a, b). The exchange of knowledge between groups practising the same vocation, is fluid and continually reinforces existing ideas, and provides a platform for the transmission of innovations (Wenger *et al.* 2002, 4).

It is tempting to argue that the southern African San rock artists comprised a large community of practice, which transcended linguistic and social boundaries, while producing a corpus of work that was readily recognised by the members of this wider society (e.g. Lewis-Williams and Biesele 1978). However, this perspective ignores the many and significant differences in rock art, and it may be more appropriate to call this a ‘constellation of practice’ (Wenger 1998b, 124–27; Roddick & Stahl 2016, 9) and use communities of practice as a mid-level category (i.e. Wenger 1998a, 124). The concept of communities of practice allows one to “explore ‘groupness’, without resorting to *a priori* categories of social identity” (Blair 2016, 97), while constellations of practice go beyond face-to-face interactions.

Addressing ‘communities of practice’ allows investigation of boundaries, core territories and information exchange across a landscape without resorting to ethnic differences. Learning is not something that happens in one place but is part of the ‘social world’ in the culture in which it is produced (Lave and Wenger 1991, 35).

Learning does not take place only at a master-apprentice level but rather in the “whole organisation of the community of practice of which the master is part” (Lave and Wenger 1991, 94). I briefly investigate San ethnography on learning and migration to understand how we can conceive of communities of practice in San rock art.

Projecting ethnography back in time is problematic, but there is evidence that despite the many changes taking place in the Kalahari, the !Kung San, from whom much of the ethnographic evidence comes, have managed to maintain cultural continuity and integrity (Wiessner 1986, 103). Historical records from the 19th century (e.g. Orpen 1874; Bleek and Lloyd 1911) show remarkable similarities with the 20th century Kalahari San ethnographies (Lewis-Williams and Bieseke 1978), despite over a thousand kilometres separation and radically exclusive languages. The persistence in San belief through space and time allows me to tentatively use evidence from the Kalahari ethnography.

Given that the subject matter of rock art is related to the trance or healing dance and contains much shamanic imagery, it is probable that the painters were ritual specialists or shamans (Lewis-Williams 1995). There is no direct ethnographic evidence on how people learnt to paint or engrave, but in San society, learning happened through participation and apprenticeship. The assumption is that learning to paint happened similarly to how shamans in the Kalahari learned. In the Kalahari, in the recent past, novices in trance were guided by experienced shamans (Katz 1982, 118–40). In these cases, it is the phenomenon of learning that is happening rather than teaching. Over time the novice moves from the “observational” and through participation becomes absorbed into the “culture of practice” (Lave and Wenger 1991, 94–5). In San society, people would have spent their life watching the dance and participating as outsiders, but then there was a crucial change – through participation in the dance and learning to enter a trance state the novice becomes a part of the community of practice of ritual specialists. The beginner can make the practice theirs, as well as be able to come to a greater realisation of the parts that make up the community of practice (Lave and Wenger 1991, 111), in this case of San shamanism.

Similarly, for artists to become skilled in the activity of painting, they would need to “engage in the activity, practice the gestures, use the tools” and in the end get a product to progress (Gosselain 2008, 153). Although learning the practice of art making might take place through an individual, what is learnt is situated within the culture and worldview of the community in which the learning takes place. Learning cannot be considered to be disconnected from the rest of the community (Lave and Wenger 1991, 97–8) and interactions throughout the lives of the painters would influence their behaviours and the images they were making (see Gosselain 2008, 154).

The nature of interaction that occurred between different groups of San people would have influenced the spread of ideas and the extent of the community of practice. The !Kung San of the Kalahari recognised ownership of territories or *n!oresi*, centred around waterholes (Lee 1972, 334), but these were vague and not defended (Lee 1972, 130; see also Cashdan 1983). There was a fluid movement of families and individuals. Young men especially would travel great distances to visit and seek marriage partners. Since the young men would need to complete a bride service after marriage these young men would go and stay with their brides family for sometimes as long as ten years (Marshall 1959; Wiessner 2002, 418). These young men could have acted as conduits for information exchange and brought new ideas to and from faraway places.

In the Northern Cape, South Africa, in the 1870s three different groups of San covered an area smaller than 600 km² (Deacon 1986, 151). Despite some difference in dialect, material culture and customs (Deacon 1986, 151), intergroup marriage occurred and people of all three groups knew and revered the same medicine men. The rock art is also similar across these different territories, and they held comparable beliefs (Deacon 1986, 153), which indicates fluid boundaries with movement and interaction across them (see also Hodder 1982).

Other possible mechanisms for movement are reciprocity relationships or systems of delayed gift exchange amongst the !Kung, known as *bxaro* (Wiessner 1986, 105) and similar exchange systems seen amongst other groups in the Kalahari (Kent 1993:

496-7). *Hxaro* acts as an insurance policy by facilitating assistance in times of need from exchange partners. These partnerships encouraged travel, sometimes as far as 200kms away, to visit *hxaro* partners (Wiessner 1986, 107–8; 2002, 421), and sometimes even crossed linguistic boundaries (Wiessner 1986, 109). Ideas would also have been passed along these exchange networks and would be able to spread far, relatively quickly. Megan Biesele (1993, 67–70) tells the story of the spread of the Giraffe Song in the Kalahari. Although there are different versions of the story, it seems that this song came to an individual, Beh (who died in 1992) and, as the song was believed to be a powerful medicine song, it spread quickly east from Namibia to Botswana. There is even evidence that it spread hundreds of kilometres south to speakers of other click languages (Biesele 1993, 69).

There is archaeological evidence that goods moved over great distances (up to at least 200km) in prehistory (e.g. Mitchell 1995, 37; Ouzman and Wadley 1997, 393–4). It is important to note that the nature of rock art means it is found in the place it was made, and the assumption is that if it is an accurate depiction of a real animal, the person making the image must have seen said animal even if it does not occur in the area (Ouzman & Wadley 1997: 392-3). Contact where one has seen the images is much more limited than ideas and goods which can spread much further. A more or less precise image match implies movement of people as well as objects and ideas.

I use these patterns of group, family or individual movement from the Kalahari and the Northern Cape as a model to explore specific regional trends in the rock art of the southern Cape and the Maloti-Drakensberg. First, I consider how paintings of bird therianthropes relate to communities of practice in the Cape Fold Belt of the southern Cape.

<1>Flight and transformation in the southern Cape

<2>Hollmann research area: description of swift-people

Images of 'swift-people' or swift therianthropes display flight and transformation. The images are unique to the southern Cape Fold Belt and were first recorded by James Alexander in 1835. He suggested they were fish-tailed figures (Alexander 1837

in Lewis-Williams *et al.* 1993). In the 1990s, these images were identified as swallows (Lewis-Williams *et al.* 1993). Hollmann (2005a; 2005b), however, argues convincingly that these images depict swift-therianthropes; they have swift bodies and wings with human heads (Hollmann 2005a). Hollmann found these images in a restricted (Hollmann research area, Fig. 1) area of about 350km in length between Montagu and Joubertina, in the Cape Fold Belt (Hollmann 2005a; 2005b).

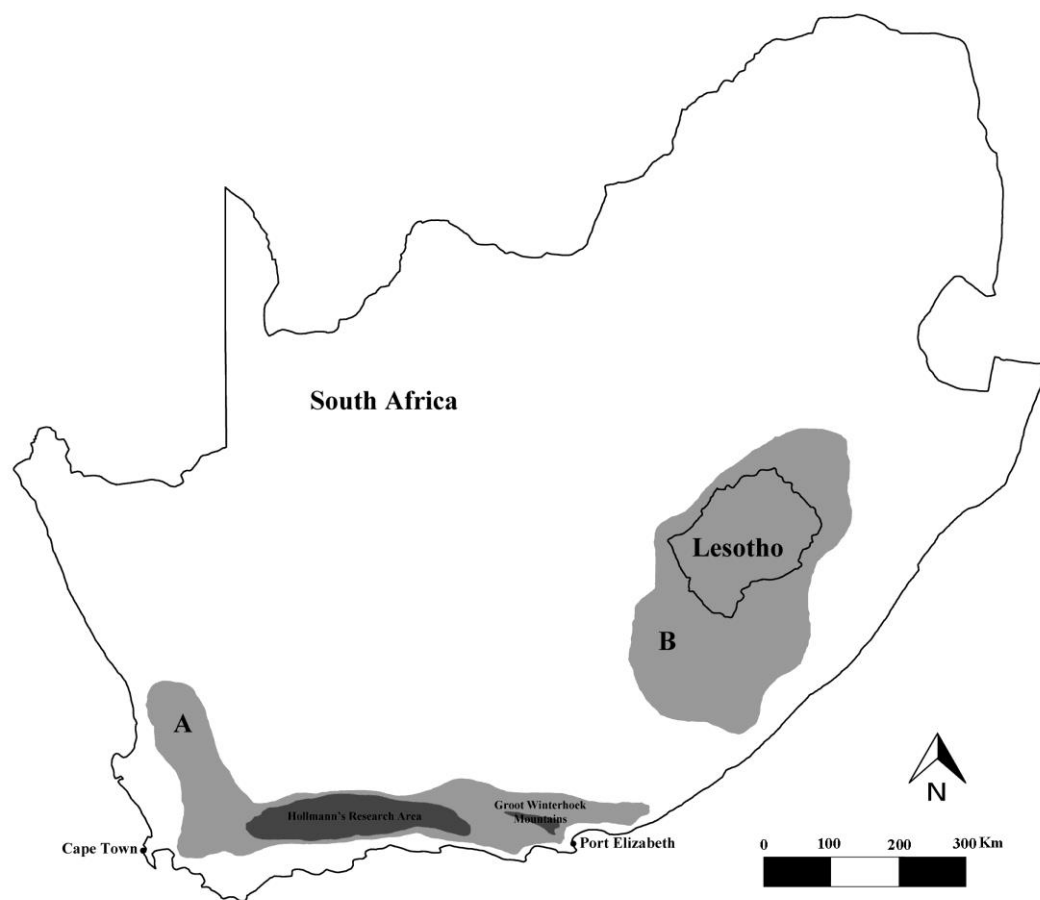


Figure 1. Previous research into regional differences in South Africa (Burkitt 1928; Rudner & Rudner 1970; Van Riet Lowe 1956) broadly agree on a western/southern region (A), and a Maloti-Drakensberg region (B). Both Hollmann's research area of the swift-tailed figures and the Groot Winterhoek Mountains are found in region A.

The swift-therianthropes have specific formal characteristics (Hollmann 2005a; 2005b), with “upper limbs that curve sharply back from their shoulders and extend beyond the tip of their far shorter lower limbs” (or tail) (Hollmann 2005a, 85); forked tail, although figures with no obvious tails are found; slim body; human head which

is mostly round and slightly pointed, although some have beak-like faces; some are depicted holding sticks or other implements (Fig. 2). Most of the images are painted in red or yellow pigment, and a few have body decorations. Superpositioning, involving swift-tailed motifs, is uncommon.

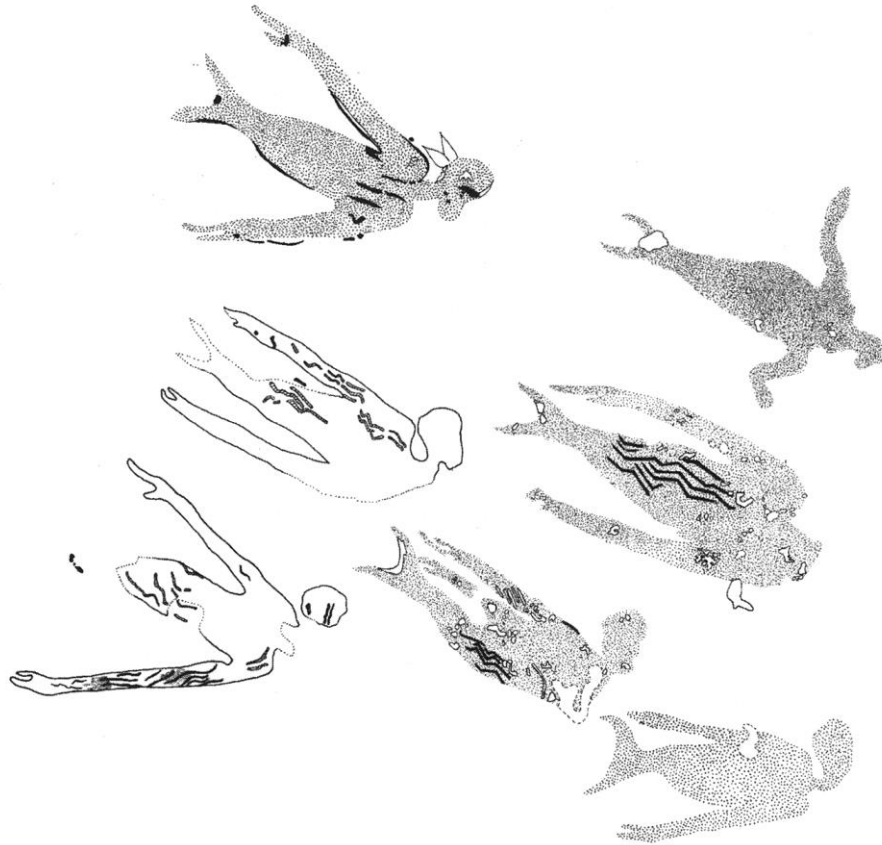


Figure 2. Swift-tailed images from Hollman's research area (after Hollmann 2005a, 88). Note the forked tails, the sharp curve back of upper limbs, the human heads, and elaborately decorated bodies. Black represents red paint, stippled areas are yellow and areas enclosed with a line are white.

These therianthropes are depicted performing certain swift behaviours such as: birds wheeling in the sky, known as 'circusing' or 'screaming party/display'; courtship or copulation images; flight; wing-clapping, where the wings meet below or above the birds' body (Hollmann 2005a; Hollmann 2005b, 21–2). Although some images occur in isolation or in relation to human figures or other animals, many are found in compositions involving groups of therianthropes. In some cases, they appear in conjunction with images that Hollmann (2005b, 31–2) identifies as swallow nests, which in life are sometimes usurped by swifts, notably the white-rumped swift.

Some swift-tailed images are depicted exiting cracks or steps in the rock face (Hollmann 2005b, 30). Use of rock features is common in the San rock art. The artists saw the rock surface as a veil between this world and the spirit world (Lewis-Williams and Dowson 1990). Hollmann (2005b, 31) has also noted that in some instances, artists took into consideration the macro-features of the shelter, for example painting a swift-tailed figure exiting a cave with a tunnel-like aspect.

There is a level of conformity amongst the swift-tailed images that cannot be attributed only to a shared cognitive system. Therianthropes occur in the art across the subcontinent, and some therianthropes have birdlike features (e.g. Fig 12.3 Lewis-Williams 2001, 343), but the swift-people have a limited spatial distribution. Recent research in the Groot Winterhoek Mountains has expanded the geographical spread of these motifs 150km further east.

<2>The Groot Winterhoek Mountains: description of bird therianthropes

The Groot Winterhoek Mountains (Fig. 1) lie at the eastern end of the Cape Fold Belt and eastern extremity of a generally agreed but variously named western/southern Cape rock art region in South Africa (Burkitt 1928; Rudner and Rudner 1970; Van Riet Lowe 1956). Over the last four years, I have identified 37 previously undocumented San rock art sites (Laue 2016; Laue 2017). These contain at least thirteen bird therianthropes from five different sites.

Unlike other images of birds in the Groot Winterhoek Mountains (Fig. 3), the upper limbs of the bird therianthrope curve sharply back and continue beyond the 'tail-end' (Fig. 4). Figure 4A and 5A and 5C have forked tails consistent with those of Hollmann's research area of the swift-people, while others have no clear tail shape (e.g. Figs. 4B, C, D and 5B, D). Although heads are not always clear or present on the therianthropes, where they are found, they are hook-heads (Fig. 5), consistent with the depictions of human heads in Groot Winterhoek Mountains (Laue 2017). The images are predominantly red or yellow with black detail. Figure 4c shows two or three bird therianthropes 'flying' towards a step in the rock. All these features are consistent with the appearance of the swift-therianthropes from Hollmann's research

area. The image in Figure 6 follows the same general manner of depiction, except that it has a different, as yet unidentified, bird tail. The ‘wings’ also have fingers further highlighting the therianthropic nature of the images.

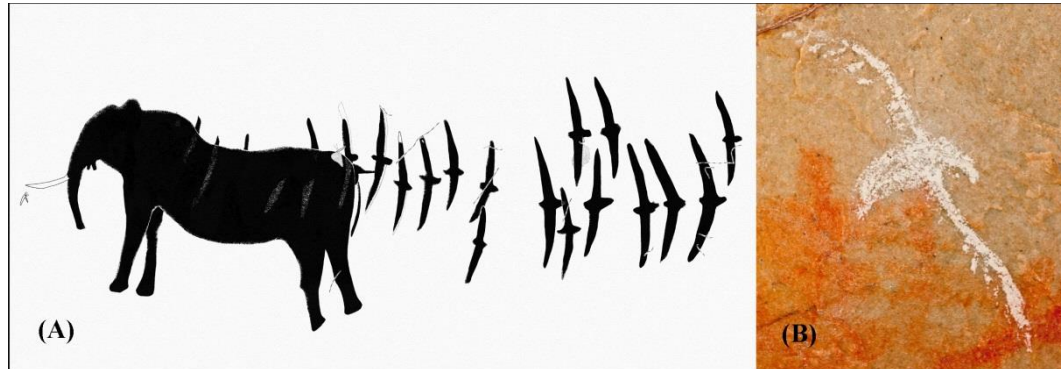


Figure 3. Examples of bird images in the Groot Winterhoek Mountains. A) These bird images, superimposed by an elephant, are from one of the few previously published sites in the area. Black represents red paint and areas enclosed with a line are white. B) This unidentified bird has also been painted with its wings outstretched and feathers are included. (Photo: G. Laue)

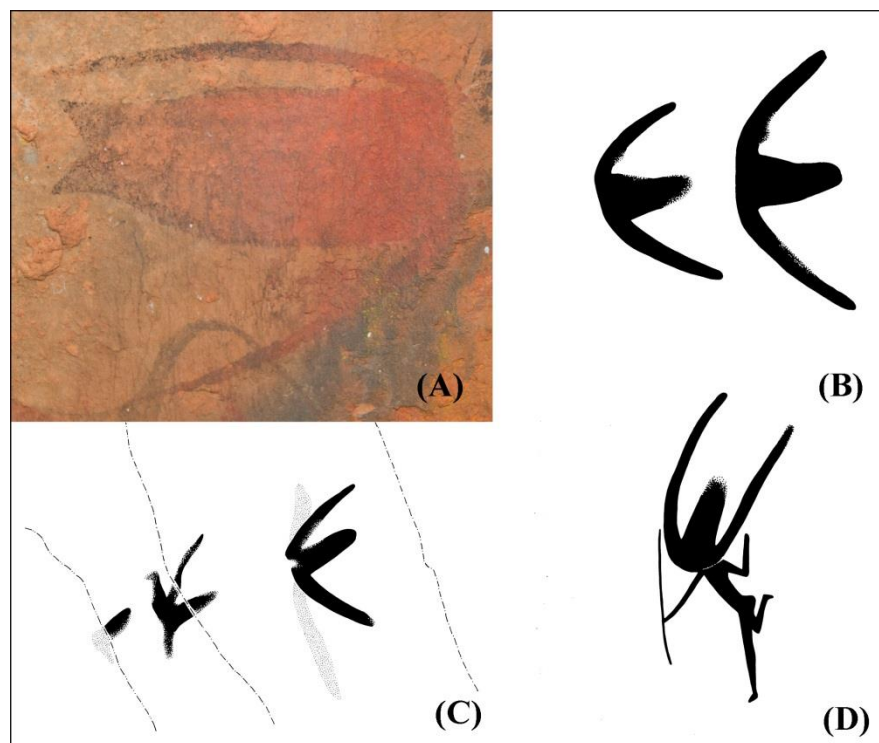


Figure 4. Bird therianthropes from the Groot Winterhoek Mountains. The heads on these figures are weathered away. Note how the upper limbs sharply curve back from the body in (A), (B) and (D) and the forked tail on (A). The first three images are painted on their side, while (D), which is superimposed over a human figure, is painted diving down towards the ground. All these positions suggest flight. Black represents red paint and stippled area is light red in (B), (C) and (D).

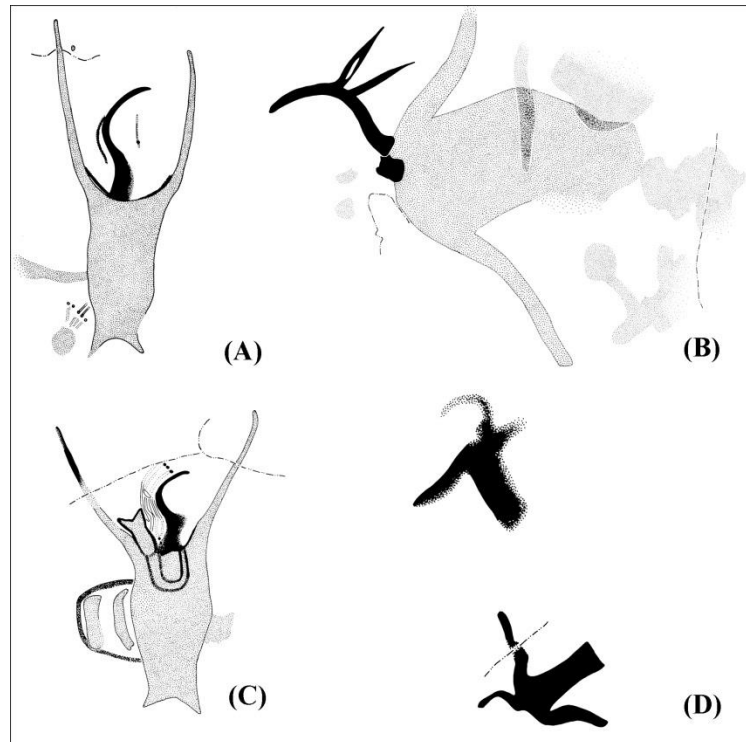


Figure 5. More bird therianthropes from the Groot Winterhoek Mountains. All these figures have human hook-heads on bird-like bodies. The arms-up posture seen in (A) and (C) might be a variation on the wing-clapping posture noted by Hollmann (Hollmann 2005b, 21–2). The two figures might be involved in a courtship display (Hollmann 2005b, 21–2). In (A), (B) and (C), black represents black paint, stippled areas are red and areas enclosed with a line are white. The images in (D) are red.



Figure 6. This image, painted over an elephant, has arms bent back in a manner characteristic of the swift-tailed therianthropes but a different type of bird tail. Black represents red paint and areas enclosed with a line are white.

There are differences between Hollmann's research area and the Groot Winterhoek Mountains: some of the bodies are more rounded, none are shown holding implements and no detailed body decorations are seen. One of the most striking differences is that not one of these images is painted performing any swift activities such as 'circusing' and display, as seen in Hollmann's research area. The only behaviours depicted, apart from flight, are possibly courtship and wing clapping (see Table 1). Figures 5A and 5C are both painted with their limbs raised above their heads which could be a variation on how wing clapping is depicted.

The bird therianthropes of the Groot Winterhoek Mountains bear a compelling resemblance to those found in the Hollmann's research area (Table 1). This consistency indicates information exchange and the movement of people across the area, and on to the Groot Winterhoek Mountains. There are, as yet, no direct dates for the bird therianthropes (but see Laue 2017); time variation across the images would show information exchange through time as well as space. This is not the first time specific images in rock art have been used to argue for information exchange across wide areas. Vinnicombe (1976, 159) argues that plotting motifs or attribute clusters might indicate the core territory used by a particular group.

Scholars generally accept that the art itself was potent for its makers and viewers (Lewis-Williams 1995; 1996). Certain images were probably particularly powerful, and those with features which incorporated notable aspects of the trance, such as flight, might have been popular painted widely across the landscape. The swift-tailed therianthropes were probably conceived in one area and then spread throughout the region much as the potent Giraffe song spread through the Kalahari (Bieseke 1993, 67–70).

Constellations of practice require connections between people and thus movement across space (Sassaman 2016, 274). Both the ethnographic and the archaeological evidence point to the movement of people over large distances and probably even across linguistic boundaries, but a community of practice is necessarily smaller and involves participation and learning. The similarity between the manner of depiction

Table 1. Comparisons between the bird-tailed figures in Hollmann's research area versus the Groot Winterhoek Mountains (Hollmann's research area images after Hollmann 2005b: 23).

Hollmann's Research Area		Groot Winterhoek Mountains	
Forked tail			Forked tails found on three of the figures
Upper limbs that curve sharply back from shoulders			Upper limbs that curve sharply back from shoulders
Upper limbs extend beyond the tip of their far shorter lower limbs or tail			Upper limbs extend beyond the tip of the body in some of the figures.
Flight			Flight
Human head			Hook-head which is common on human figures in the area
Slim body			Body is sometimes more rounded than the core area
Interaction with the rock surface			Interaction with the rock surface
Courtship images			Possible courtship images are seen
Wing-clapping, where the wings meet below or above the birds body			Possible variation of the wing-clapping posture
Depicted holding sticks or other implements		x	No such as images are, as yet, found
'Circusing' or 'screaming party/display'		x	So far no such displays have been seen
Red or yellow pigment and a few have body decoration		Mostly red pigment, but one is painted in yellow. No body decoration	

of these bird-tailed figures between Hollmann's research area and the Groot Winterhoek Mountains suggests direct contact. People would have had contact during visits to relatives, bride service, and hxaro. During these times they would have taken part in shared activities such as the communal trance dance, heard stories and seen painted images which incorporated the swift-people. Through this direct contact, ideas about these images would have spread and can be seen as a community of practice, but as the ideas were passed on, there would be slight modifications as individuals made them their own. This can be seen in differences between the Hollmann's research area and the edge of the community of practice in the Groot Winterhoek Mountains. New layers of meaning were possibly added and, others were lost, yet there was still coherence in the way the images were painted.

<1>Flight and Transformation

Another expression of flight and transformation in rock art exists in the Maloti-Drakensberg in the form of 'flying buck' (Lee and Woodhouse 1964), 'alites' (Pager 1971, 231) or 'trance buck' (Lewis-Williams 1981, 86–7). These images (Fig. 7; see also Fig. 381 in Pager 1971, 342), share some features with the bird-tailed images of the southern Cape.

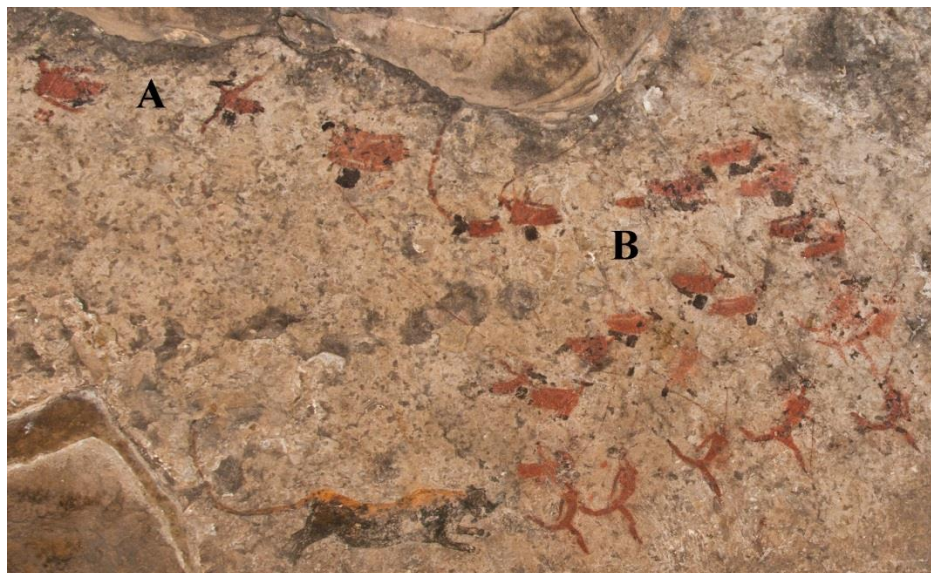


Figure 7. An example of images, variously named 'flying buck', 'trance buck' or 'alites', showing flight and transformation from the Barkly East District in the Maloti-Drakensberg. Two figures (A) have their arms in the same positions seen with the swift-therianthropes. Note the antelope heads (A) and (B).

Pager (1971, 231) uses the term ‘ales’ (bird) or plural ‘alites’ to describe these images. They all have wings or arms in a flight posture. He defines them as: “a human or anthropomorph having wings or holding arms in a wing-like posture; an antelope with pterygoid extremities or streamers; a zoomorphic creature with bird-like body and pterygoid extremities and/or bird-like tail” (Pager 1971, 231). Front legs are usually portrayed as wings. If the back legs are depicted, they are often in a kneeling position. Lewis-Williams coined the term ‘trance buck’ for these depictions. He argues they are not always associated with flight (Lewis-Williams 1981, 84–101).

Pager’s (1971, 231) definition covers the bird-tailed therianthropes of the Cape Fold Belt, but there are significant differences: many of the Maloti-Drakensberg figures have antelope rather than human heads; the ‘wings’ are often in an ‘arms back position’ rather than out at the side; feathers are sometimes depicted on the ‘wings’; some of the figures have their lower limbs painted, but drawn up in a kneeling position. These differences suggest that direct communication between the painters of these images and those of the southern Cape bird therianthropes was unlikely. Indeed, the Maloti-Drakensberg (Fig. 1, A) is not contiguous with the rock art of the Cape Fold Belt (Fig. 1, B) and the extremes of the two areas are over a thousand kilometres apart.

Can the existence of a category of images that incorporates the same motifs of flight and transformation be explained by communities of practice or is another kind of social phenomenon being played out? In this case, we see a constellation of practice common to many southern African San. The marked similarity and uniformity of the art across vast distances (Lewis-Williams 1986, 10; 1998, 86–7) and possibly considerable time periods (Lewis-Williams 1984) is due to a larger belief system that gives emphasis to experiences of transformation and the sensation of flight (Lewis-Williams & Loubser 1986, 280). This should not be seen in terms of specifics, but rather in persistent themes differently constructed in regional and local contexts (Low 2015, 51).

Historical and ethnographic accounts have shown that San ritual specialists or medicine men would enter altered states of consciousness to access the spirit world

(e.g. Katz 1982; Lewis-Williams 1981; Marshall 1999). The feeling of transformation from human into animal seems to be hard-wired into the human nervous system (Lewis-Williams 2006, 107; Winkelman 2002, 1877). Therianthropic images are seen throughout southern Africa. A San interlocutor, familiar with the rock art, gave one of the only firsthand commentaries regarding a panel of rhebok therianthropes in the Maloti Mountains (Orpen 1874). His explanation suggests these depictions may be shamans in a trance state (Lewis-Williams 1980, 475). This interpretation, as well as other ethnographic accounts, has led to a consensus that therianthropes are shamans who harnessed the powers of individual species of animals to enter a trance state (Lewis-Williams and Dowson 1989, 68–9; cf Jolly 2002). Although conflation between human and antelope are the most common, elephant, baboon, wildebeest, jackal and birds among others are also seen (Jolly 2002).

Birds are an obvious choice for a therianthrope as flight is a common metaphor for trance (Lewis-Williams *et al.* 1993). Floating or flying to other realms is a common sensation experienced by shaman (Lewis-Williams 2002, 147; Lewis-Williams and Pearce 2004, 122). In rock art, this is depicted by feathers or wings (Lewis-Williams 2001, 343), a fantastic bird on the head (Lewis-Williams *et al.* 1993, 285), a bird (Laue 1999, 45) or bird-therianthropes (Lewis-Williams *et al.* 1993, 285; Hollmann 2005a, b).

The alites/flying buck/trance buck of the Maloti-Drakensberg are themselves perhaps indicative of a separate community of practice from that of the bird therianthropes of the Cape Fold Belt. This community of practice and that of the bird-tailed figures in the southern Cape are part of a constellation of practice that shared ideas about flight and transformation.

<1>Conclusion

Shared motifs imply the existence of communities that interacted closely in time and space and shared beliefs and practices. These communities of practice, embodied in the geographical distribution across the landscape of shared motifs, provide a cogent basis for a concept of a rock art region based upon characteristics of the art. Motifs embodying similar themes of flight and transformation but from discontinuous areas

may be understood and described as instances of constellations of practice. In such cases, commonalities seen on a subcontinental level are uniquely expressed, spontaneously and independently, in the form of two distinctive motif types—bird therianthropes in one area, alites/flying buck/trance buck in another.

Rather than relating similarity and difference to cultural or linguistic groups, similarities can be seen as a community within a larger constellation of practice that over space and time, shared a tradition of painting motifs of flight and transformation in a certain way. Due to the many thousands of sites in the subcontinent and the patchy nature of surveys for sites, there are large regions between area A and B where few or no sites are known. This means it is unclear whether this is a real boundary between two communities of practice or two ends of a cline.

Investigation of other aspects of the art such as shaded polychrome images or handprints will show other communities of practice which might have disparate but overlapping ranges. Further work into plotting these communities of practice will give a clearer picture of regionality with broad blurred boundaries as well as sub-regions within these boundaries.

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CHAPTER EIGHT:
EXPLORING REGIONALITY USING THE CONCEPT OF
‘CHAÎNE OPÉRATOIRE’

G.B. Laue. Exploring regionality: using the concept of ‘chaîne opératoire’ to develop alternatives to ‘style’ as a descriptor

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‘CHAÎNE OPÉRATOIRE’: TOWARDS A STANDARDISED DESCRIPTIVE FRAMEWORK FOR REGIONAL DIFFERENCE IN ROCK ART

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ABSTRACT

Style is regularly used to identify regions in rock art, but as this concept is rarely well defined, its use is often problematic. In the late 1960s quantitative analysis of the art was proposed as a means of a more scientific approach to rock art but excessive quantification led to huge data sets of little comparative value. More recently it has been proposed that motif should be the sole factor used to investigate regional difference. This paper takes a middle way between these approaches and proposes using the concept of the *chaîne opératoire*—commonly used in lithic archaeology—to analyze factors involved in the production and consumption of rock art images to develop a new descriptive language to explore regional differences. Two areas, one in the Barkly East District and the other in Groot Winterhoek Mountains of the Eastern Cape Province, South Africa, illustrate how this approach can be used to make regional comparisons. Although this paper uses examples from southern Africa, the approach has widespread applicability; the finished images are very different but many of the actions along rock art *chaîne opératoires* are universal.

Keywords: Regionality, rock art, southern Africa, *chaîne opératoire*, style.

“it is not only the outline which contributes to the style of the painting, but also the effect of the *tout ensemble* – the painting in its own setting with its own rock background”

(Burkitt 1928: 132)

INTRODUCTION

Although problems with the use of the “vexatious term ‘style’, impossible to reduce to objective terms” (Vinnicombe 1967: 129), have long been noted, the term has become naturalised in the discourse of many rock art scholars. The following quotations illustrate how the word ‘style’ has been used in some recent rock art publications: “Usually, however, these images can be quite easily distinguished on the basis of subject matter and ‘style’” (Hollmann 2013: 153), “superficially comparable in content and style” (Wade et al. 2011: 29), “Many similarities in style exist between the CLB geometric art and that from Namaqualand and Bushmanland” (Orton 2013:33), “barbed spears with spear throwers and humans figures in an undiagnostic style” (Gunn et al. 2012: 58), “This painting...is remarkable for its size, detail, and style” (Wyndham 2011: 393). In each of the papers from which these quotes are drawn, there is no attempt to define what is meant by ‘style’.

In a move against the subjective analysis of style in southern African rock art Vinnicombe (1967) suggested a more ‘objective’ quantitative approach to rock art. Her method demanded that detailed information about each figure be assessed on individual index cards. This analysis included information on the proportion and action of the figures measured using the detailed templates provided. The hope was that with the information gathered researchers would be able to compare “one area with another on an objective basis” (Vinnicombe 1967: 141). Although many years of recording went into this endeavour, the information gathered was mostly from limited areas in the Maloti-Drakensberg (e.g. Lewis-Williams 1972, 1974, 1981a; Pager 1971a, b; Vinnicombe 1976) and the huge data sets produced have so far proved too unwieldy for comparative projects and have generated no new insights into regional variation.

More recent attempts at understanding regional difference (Hampson *et al.* 2002; Hampson 2015) have suggested a radically simplified approach in order to get away

from the problems of style. It is suggested that motifs should be categorized as widespread, regional or rare. This approach brings its own problems. By privileging motif, many other factors that contribute to the differences in the art of different regions are ignored.

Vague notions of style, quantification and simplified motif analysis only approach some of the factors that contribute to regional difference in rock art. In order to move forward with regional studies, I suggest a more standardized descriptive framework that avoids excessive numerical studies and does not oversimplify difference by reducing it to a single element. In this paper I show how the concept of the *chaîne opératoire* makes the term 'style' redundant. The steps that an artist would take in the image-making process are conceptualized and each step explored in isolation. Here motif and quantification are just some of the data which contribute to an understanding of the similarities and differences between areas. This is not a final formulation, but rather a way to tighten up the descriptive language used in rock art regional research and provides a way forward to start to untangle regional difference.

THE *CHAÎNE OPÉRATOIRE*

The ideas behind the *chaîne opératoire* were originally developed between the 1940s and 1960s by Leroi-Gourhan (Audouze 2002). Leroi-Gourhan wanted an analytical method for investigating the similarities and differences to identify change in technical system as well as the corresponding social changes (Audouze 2002: 282). By addressing these themes, Leroi-Gourhan established a new field of comparative technology, the *chaîne opératoire*. His classification was based on both the physical properties of the materials, the actions that would transform them, as well as the techniques used in this process (Audouze 2002: 283). By analysing technological sequences related to the different stages of production, other related factors could also be taken into account "including physical and economic ones, terminology, places, social relations, symbolics, etc." (Audouze 2002: 287). The full development of the approach occurred in the Paris in the late 1970s (Soressi and Geneste 2011: 335), but it was not until the late 1980s that the term came into widespread use amongst French archaeologists (Sellet 1993:106) and only in the 1990s did archaeologists in the English-speaking world take up the term (e.g. Jelinek 1991; Wurz 1999). The

chaîne opératoire has been defined as “the different stages of tool production from the acquisition of raw material to the final abandonment of the desired and/or used objects” (Bar-Yosef *et al.* 1992: 511) or “a technological approach that seeks to reconstruct the organization of a technological system at a given archaeological site” (Sellet 1993: 106).

Many using this approach have seen it as an analytical tool and little consideration is given to the *chaîne opératoire* as a theoretical concept (Sellet 1993: 107). The premise is that the technological trajectory of material culture from raw materials to cultural matter is relevant (Schlanger 1994: 144). Even when not explicitly stated the *chaîne opératoire* is most often seen as a mid-range theory which uses experimental archaeology and ethnoarchaeology to connect patterns in human behaviour to what is seen in the archaeological record (Tostevin 2011: 353). In the absence of experimental archaeological and ethnoarchaeological data, I use the concept of the *chaîne opératoire* as a method to develop a descriptive framework for regional difference (see Schlanger 1994 and Tostevin 2011 for a fuller discussion on the theoretical background of the *chaîne opératoire*)

The different ‘choices’ made at each step during the manufacture of the object enables archaeologists to characterise technical traditions of a group (Bar-Yosef *et al.* 1992: 551) and it is in these choices that ‘culture’ is expressed (Grace 2012: 3). Each of the steps in the operational sequence is dependent on both human and natural parameters or constraints (Inizan *et al.* 1999: 25); it is when a gesture reoccurs that it can be interpreted as intentional, although it is still subject to these constraints (Soressi and Geneste 2011: 337). Archaeologists work in reverse through the chains of operation, starting with the finished object and work backwards to infer the stages in the manufacture of the item (White 1997: 95). Work in experimental archaeology, ethnoarchaeology and archaeometry can give insights into possible actions leading to the finished object (Gosselain 1992: 559).

This approach has most often been used as a means of looking at lithics from raw material procurement to the discarding of the artefact (Sellet 1993: 106). The *chaîne opératoire* has also been used to investigate pottery style. Style in pottery is most often

approached by studying only the decoration and morphology of the end product while the actions leading to the end product are ignored (Gosselain 1992: 559). Gosselain (1992) counters by looking at the whole production process which “can be the locus of stylistic expression”. During the production sequence there are both natural and cultural constraints, and ‘style’ enters when there is a choice or option between two equally viable options. Unlike lithic *chaîne opératoires* White (1997) notes that the operations that fall under technology are just a small part of the larger sequence. He proposes a *chaîne opératoire* for Aurignacian I personal ornaments. White (1997) sees regional variations, recognised as ‘style’ being due to differences in the underlying technical systems. He expands the concept of the *chaîne opératoire* to include the social and cultural contexts in which the objects are produced. The beliefs about the materials are considered as are the supernatural side of the signifiers. Consideration is given to how the objects are used socially, notions of how the object was perceived and how it fitted into the worldview.

Table 1 outlines these *chaîne opératoires* showing their different levels of complexity. What they all have in common is an attempt to look beyond the finished product and understand the steps that go into artefact creation. Criticisms have been levelled at the *chaîne opératoire* approach, especially how it has been applied to lithic technology. There is sometimes a tendency to reduce the *chaîne opératoire* to a typology of reduction processes and as such it fails in the same way as other typological systems with analyst discrepancies and problems with classification criteria (Bar-Yosef and Van Peer 2009: 107–108). Perhaps a greater problem is a lack of social theory in relation to the meaning of the technological categories. There is often little consideration given to how cultural transmission would have occurred (Bar-Yosef and Van Peer 2009: 115). The terms “choice, intent and preference” are used as if they are neutral and the artisan was in total control of a specific planned outcome, while responses to variation in raw material and availability and reliability of resources are not considered (Bar-Yosef and Van Peer 2009: 114). The use of the *chaîne opératoire* approach in the fields of pottery and personal ornamentation mentioned above have attempted to overcome these problems by being explicit about the learning and social contexts in which the technological production occurs.

There has been little explicit use of the *chaîne opératoire* in rock art research (cf. Griffith 2015; Fiore 2007). Lewis-Williams (1994; 1995), although not using the term *chaîne opératoire*, divides the production and consumption of rock art into four steps which could be viewed as a broad *chaîne opératoire* for southern African and Upper Paleolithic art. These investigations are suggestive of its potential for use in a comparative study of rock art regions.

Although southern African rock art studies are largely missing ethnoarchaeological or experimental archaeological research (but see Bassett 2001; Johnson 1957; Rudner 1982:29-30), there is a large body of ethnographic evidence on San life on which to draw. Ethnography allows us to pay attention to the social and cultural side to rock art production and search for causes for differences seen in the technological record (e.g. Laue in prep).

Table 1: Chaîne opératoires proposed for lithics, pottery and personal ornamentals

Lithics (e.g. Bar-Yosef <i>et al</i> 1992; Grace 2012)	Pottery (e.g. Gosselain 1992)	Personal ornamentals (White 1997: 95):
• Raw material and its geographical relation to the site • Core reduction sequence which follows at least three steps • Tool manufacture and use. • Discard or curation of tools.	• Selection of raw material. • Extraction of clay. • Pre-treatment of raw material. • Shaping. • Decorative techniques. • Finishing. • Drying. • Collection of materials and boiling of decoction. • Preheating (not always done). • Firing • Application of decoction.	• Cultural assumptions about personhood. • Beliefs about the relationship between materials, representational acts, representational constructs and social/supernatural efficacy. • Choice and acquisition of raw material based on above. • Choice of forms, textures, colours or subject matter. • Organisation of production. • Combination of gestures and tools into techniques for ornament production. • Representation of desired dignifiers of social identity, age, reproductive status, supernatural associations, etc. • Use of ornamental representations in meaningful acts. • Purposeful or accidental disposal of ornaments.

Exploration of a general *chaîne opératoire* for rock art means that the whole ‘life’ of the painted images from conception to use can be studied and conclusions reached as to

which aspects of the art are influenced by natural constraints (e.g. rock types or pigment availability), and which by the cultural constraints of the community in which the artists find themselves. It is the many moments of ‘choice’ that go into making an image or composition that are of interest, as these ‘choices’ impact the final product and ultimately the differences between regions.

An understanding of regions based on these ‘choices’ can be used to interpret aspects of social organization, point to information exchange and help in the explanation of territoriality and boundaries (Brady and Bradley 2014: 361). Previous definitions of style have drawn on these moments of ‘choice’ without any explicit theorizing, which means the conclusions reached are by their very nature unsystematic. One way of responding to this challenge is to use the concept of the *chaîne opératoire*. This approach means that not only are the completed images the object of study, but also all the actions involved in their manufacture and use (Gosselain 1992: 559).

A CHAÎNE OPÉRATOIRE FOR ROCK ART

Lewis-Williams (1994; 1995) divides the production and consumption of rock art into four stages:

1. The acquisition of imagery.
2. The manufacture of paint.
3. The making of rock paintings.
4. The use of rock paintings.

Griffith (2015) divides her technological analysis into three parts:

1. The choice of media.
2. The creation of the image.
3. Use of the image.

I have expanded on these works. Drawing ideas from the above mentioned schema, but including additional aspects that influence the final ‘look’ of the art, I propose a general *chaîne opératoire* for rock paintings that is divided into five stages (Fig. 1): After the acquisition of imagery and raw materials the following sequence has been devised:

1. Choice of location.
2. Choice and creation of paints.

3. Choice of motifs.
4. Creation of images.
5. Use of images.

Each of these stages have a series of operations or ‘choices’ imbedded within them. Each moment of choice is constrained by natural parameters such as geology or climate, and cultural parameters such as social expectations and contact with others. There are of course overlaps between many of the stages and operations, but the divisions make the descriptive process clearer.

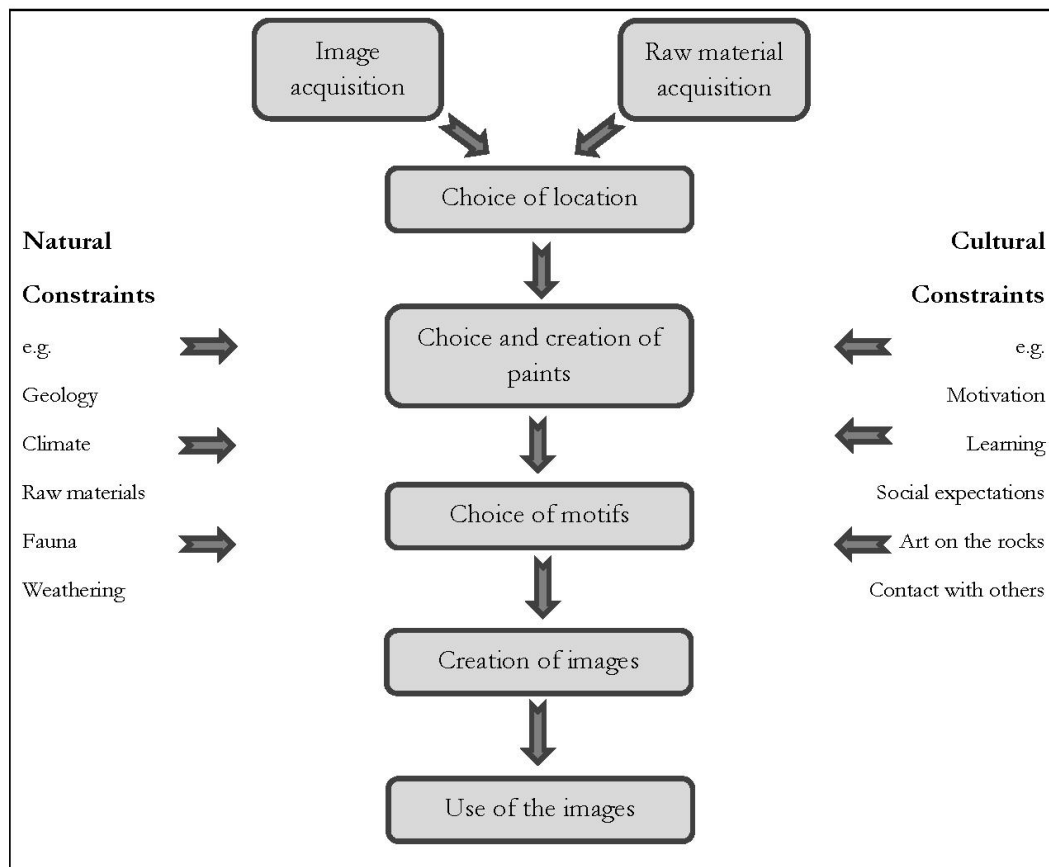


Fig. 1: Flow diagram showing the steps in the process of art making.

It should be noted that when I refer to ‘choice’ or ask particular questions, I am not suggesting that all these questions and ‘choices’ were made or asked explicitly by the artist. It is likely that for the most part the artists made art based on the societal conventions by which they lived. But this does not mean that the artists had no agency. Rock art production and consumption occurred within a specific social context and was “open to manipulation by individuals and interest groups in the

reproduction or challenging of social relations” (Lewis-Williams 1995: 143). There is also evidence that although there were conventions regarding the choice of what and where to paint, idiosyncratic images were also painted (e.g. Dowson 1988). We can expect the same of other production choices.

Before a detailed analysis of a *chaîne opératoire* for San rock painting, both motivation and cultural transmission or learning needs to be considered. Both of these factors influence the end outcome of the images. Without direct ethnographic data it is unlikely we will understand the individual group or painter’s motivation to paint, even if it were possible, but the motivation to paint is encouraged by societal norms, and it is these we can attempt to understand.

Art or symbol making has been part of human experience for at least 75 000 years (Henshilwood *et al.* 2002) and possibly dates from our pre-*Homo sapiens* ancestors (Joordens *et al.* 2014). The making of representational art in the form of rock art has a history of at least 40 000 years (Pike *et al.* 2012; Aubert *et al.* 2014). Art-making is undertaken by nearly every culture in the world and the making of rock art is common to many hunter-gatherer societies (e.g. Layton 1992; Whitley and Loendorf 1994; Lewis-Williams 2002; Taçon *et al.* 2010).

The context in which the rock art is made is important to consider when answering questions about the reasons for art production. Whether the art is made during an initiation practice (e.g. Namono and Eastwood 2005), by secret societies (e.g. Smith 2001), vision quests (e.g. Whitley *et al.* 1999) or as part of shamanic practices (e.g. Lewis-Williams and Pearce 2004) will affect the ‘look’ of the end product. For example, initiation art which is made to be viewed once will look very different from an art which is made by ritual specialists for whom the practice of making art is, in all likelihood, something learned and perfected over years.

Through the numerous works of Lewis-Williams and others in southern Africa (e.g. Vinnicombe 1976; Lewis-Williams 1981a, Yates *et al.* 1985) and researchers in other parts of the world (e.g. Whitley 1992; Taçon *et al.* 1996; Clotte and Lewis-Williams 1998; Conkey 2001; Lewis-Williams 2002; Lahelma 2007; Gjerde 2010; Helskog

2014) many rock art traditions have been shown to have a symbolic and ritual significance. An understanding of this significance can lead to possible answers as to why people painted, whether it was a means of fixing potency to the walls of the shelter (Lewis-Williams 1995: 147–149), a means of recalling visions of the spirit world (Lewis-Williams 1995: 147), made during vision quests (Whitley *et al.* 1999) or made as an instructive aid during initiation rites (Namona and Eastwood 2005). Although the emphasis on interpretation has pushed investigation of the art towards the symbolic side of the images, the art can still have an economic as well as a political side (Lewis-Williams 1982; Fiore 2007: 149). If known these other aspects of the art and art-making also need to be taken into account.

The similarities in regards to mythologies and religious beliefs of the San point to subcontinental belief systems (Vinnicombe 1972; Lewis-Williams and Bieseke 1978; Lewis-Williams 1992). There is no direct ethnographic evidence for the motivation to make art in San society, but there is evidence that the art is a product of a ‘pan-San’ shamanic world-view (e.g. McCall 1970; Lewis-Williams 1984). The art is part of religious practices which are underlain by a deeper structure that is seen across San culture (Barnard 1992: 298, 301–302), and rock art, together with ethnographic evidence gives us insight into these belief systems and practices. It is likely that the fixed nature of rock art on the landscape was linked to people’s sense of personal and collective identity. There are specific images that point to more localised beliefs (e.g. Dowson 1988; Hollmann 2005a, b; Mguni 2015), but even these localised beliefs fit within the wider framework of San art and have been made with a similar motivation.

Some reasons for making art in San society include the fixing potency to the rock walls (e.g. Lewis-Williams 1986), or drawing the potency out of the spirit world and fixing it to the rock face, and the sharing of visions of the spirit world (Lewis-Williams 1995: 147). The paint was seen as potent (Lewis-Williams 1994, 1995; How 1962), the images of the spiritual world were reservoirs of potency which could be called upon at later dates (Lewis-Williams 1995: 148; Lewis-Williams and Pearce 2009: 43). The painted sites were complex panoramas of spiritual power and Lewis-Williams and Pearce (2009: 42) suggest that “successive painters worked, at least in

part, so that others would be able to benefit from and participate in the accumulating record of spiritual insights and experiences”. Images could have also acted much like story telling in ethnographic accounts as a means of transmitting information about the spirit world to other members of the community (Biesele 1978: 937; Guenther 2006: 252).

It is important to engage with the question of how an artist learns to make art, although this information cannot always be accessed if ethnographic information is not available. When ethnographic evidence is available we can use this to investigate the community of practice surrounding art making (Lave and Wenger 1991; Laue in press) and we can make inferences from the archaeological record. Even in the case of art without a commentary it is possible to come to some conclusions about the makers of the art and the possible contexts of learning that accompanied it (e.g. Parkington 1989; Lewis-Williams 2002).

Communities of practice around the learning of the different aspects of art making will lead to differences in how the art is made and what is painted (e.g. Laue in press). The many intersecting communities of practice come together to form constellations of practice that are seen as regions in the archaeological record (Joyce 2012: 151). Other influences on art making are whether the art is a practice that is done for all to see, such as is apparent for most San art, or is secretive and only seen by a select few such as is the assumption for some Upper Palaeolithic art (Lewis-Williams 2002). Connections to other communities through trade or movement of peoples will influence how far ideas spread and over what distances we can expect to see similarities.

We do not have direct ethnographic evidence relating to how the San learned to paint but as the art has been shown to be essentially shamanistic (e.g. Lewis-Williams and Loubser 1986: 286), perhaps the best way to investigate how art making would have been learned is to look at the cultural transmission of healing, dancing and other practices relating to shamanism work. Shamanism today is not something secret and children are involved in the practices by being healed and attending dances (Lee 1968; Katz 1976: 286; see also Draper 1976: 202; Marshall 1999: 50). The prospective

medicine person can receive support from a number of people but he or she will usually ask an experienced trance practitioner to take him on as an apprentice (Lee 1968: 47; Katz 1976: 291). In order to gain experience, a ‘student’ of *!kia* (trance) tries to go to as many dances as possible, sometimes touring from camp to camp (Lee 1968:48; Katz 1976: 289; see also Kinahan 2017, 2018). If, as it is assumed, the shamans were the painters, then it is likely that although they learned their craft from a specific teacher, a specific community of practice, but they were also part of other communities of practice which would influence the look of their art, leading to larger constellations of practice.

Among the *!Kung* San of the Kalahari, boundaries of subsistence areas were recognised but these were often vague and not defended (Lee 1972: 130; cf. Cashdan 1983). There was fluid movement of families and individuals between territories. Archaeological and ethnographic evidence point to the long distance travel of both people and artefacts. Two major mechanisms for this movement were bride service and gift exchange networks. Young men would travel far to find wives and spend up to 10 years doing bride service with his new wife’s family (Marshall 1959; Wiessner 2002: 418; Lewis-Williams 2015: 84; 2018: 145; Thorp 2015: 167). Systems of delayed gift exchange could have also acted as conduits for travel and information exchange (Wiessner 1977: 188, 1986: 106–108, 2002: 421; Kent 1993: 496–497). Travel would have allowed painters to both see painted shelters in other areas by also possibly paint in and learn from painters in those areas. The archaeological record shows objects such as shells that have been transported over great distances (e.g. Mitchell 1996: 37) while rock paintings of animals and fish are found that are exotic to the area in which they are painted (Ouzman and Wadley 1997: 393–394).

In the pages that follow I discuss each of these stages and the ‘choices’ they necessitate in respect to two previously defined rock art regions, the Barkly East District and the Groot Winterhoek Mountains, both in the Eastern Cape Province of South Africa. I show how the *chaîne opératoire* approach can be used to describe either similarities or differences between the two study areas without resorting to style.

The utility of this descriptive approach is shown through a comparison of two areas in the Eastern Cape Province of South Africa, the Barkly East District and the Groot Winterhoek Mountains (Fig. 2).

The Groot Winterhoek Mountains lie at the eastern extent of the Cape Fold Belt about 40 km north-west of Port Elizabeth. They are positioned in the previously defined southern/western art region, but equidistant from the well-researched art of the Cederberg, which formed the basis for defining this region and the southern extent of the Maloti-Drakensberg region. 37 sites have been located in the area. Most of the art is fine-line and fits within the ‘pan-San shamanic framework’ (Laue 2016, 2017) which has been proposed for the art hunter-gatherer belief systems and art in southern Africa (McCall 1970: 18; Lewis-Williams 1984: 227).

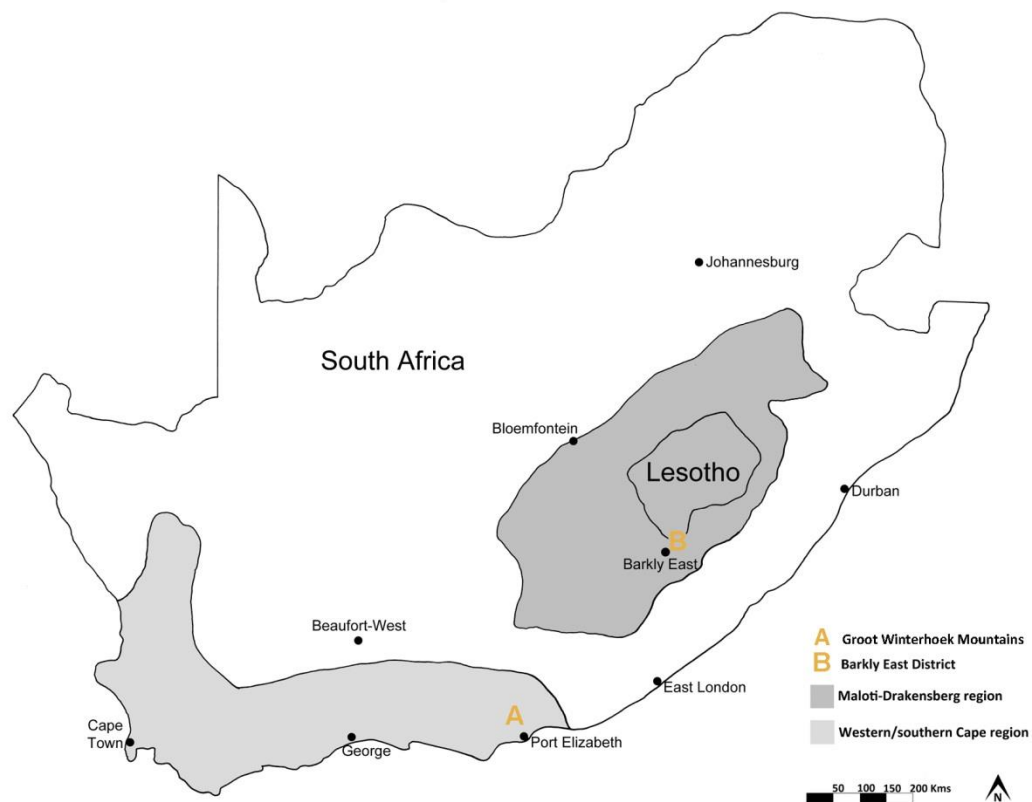


Fig. 2: The Maloti-Drakensberg and the southern/western Cape regions (after Burkitt 1928; van Riet Lowe 1956; Rudner and Rudner 1970; Willcox 1984), and the two areas, the Groot Winterhoek Mountains and the Barkly East District under consideration here.

Earlier analysis of the art of the whole southern/western Cape region saw this art as inferior (e.g. Burkitt 1928) or more primitive (e.g. Willcox 1984) to that of the Maloti-Drakensberg. The smudgy red background (Burkitt 1928) and predominance of bright red monochrome images (Burkitt 1928; van Riet Lowe 1956; Rudner and Rudner 1970; Willcox 1984) were noted. The art was described as more stylized (Rudner and Rudner 1970) with action poorly depicted (van Riet Lowe 1956). The presence of the unique fish or swallow-tailed images was remarked upon (Rudner and Rudner 1970; Willcox 1984) but their limited distribution was not noted (Hollmann 2005a, b; Laue in press).

The Barkly East District was chosen for comparison from the many well studied areas in the Drakensberg-Maloti Mountains for three reasons. First, the art in Barkly East District has been published (Lewis-Williams 1981a) and extensively photographed (<http://www.sarada.co.za>). Secondly, quantitative data is available for the art (Lewis-Williams 1981a: 133–135). Last, the Barkly East District is one of the most southern areas of the Drakensberg-Maloti art region and is less than 500 km from the Groot Winterhoek Mountains. The art of this area formed the basis for much of Lewis-Williams work in formulating the ethnographic approach to San rock art and it is from this area that many examples are taken to show shamanic aspects of the art (e.g. Lewis-Williams and Pearce 2004 figs 5.3; 6.9).

Willcox (1984: 203) sums up the sharp differences between the two regions, sub-regions 3 (southern and south-Western Cape) and sub-region 4 (Drakensberg-Maloti Massif) as follows:

On the one side few bichromes, fewer polychromes and no shaded polychromes; animals depicted in the lateral aspects with no foreshortening; only the simplest of scenes, little action, a degree of formalism, and an abundance of handprints; on the other side of the narrow gap is Sub-region 4, abundant in bichromes and polychromes; many shaded animals shown in any aspect often with spirited action; very little formalism; no handprints.

TOWARDS A DESCRIPTIVE FRAMEWORK: A COMPARISON OF *CHAÎNE OPÉRATOIRES*

The first steps in my proposed *chaîne opératoire* for southern African San rock art imagery are the acquisition of imagery and the acquisition of raw materials for pigments and painting materials. Without direct ethnographic evidence it is nearly impossible to discover whether raw material procurement strategies were different in the Barkly East District and the Groot Winterhoek Mountains. Evidence points to much of San rock painting imagery being acquired through altered states of consciousness (Lewis-Williams and Pearce 2009). This is based on the rock art itself using ethnographic evidence from other regions in the subcontinent, so again it is not possible to point to specific differences, between areas, in how altered states were achieved. But what people saw was not random. There was a sharing of insights which made for a “commonality of visions” (Lewis-Williams 1994: 145). Furthermore, the descriptions of visions after a trance experience influenced what would be ‘seen’ in future trance experiences; “[p]eople tend to hallucinate what they expect to hallucinate” (Lewis-Williams 1994: 145). What people expect to hallucinate will differ depending on the social context in which they live.

Choice of location

Effects of geology and topography

It might seem as if the artist had a ‘choice’ as to whether he/she would paint or engrave their art, but in reality in many instances the distribution of paintings and engravings seems to be related to the availability of shelters or suitable rock formations (e.g. van Riet Lowe 1956: 3; cf. Helskog 2014: 22–23). In South Africa there are few examples of overlap between painting and engraved areas. In the mountainous regions of the country many painted shelters are found while in the rocky interior and north-west part of the country where there are few shelters, engravings are preponderant (van Riet Lowe 1956: 3). So, although there are clear differences between what is engraved and what is painted (Steel 1988; Rusch and Parkington 2010; Helskog 2014), there are also differences based on the geology and topography of the region.

The place an artist chooses to paint and the placement on the rock does not seem to be random. In some cases there is an indication that specific sites were chosen, while in other cases, although there was probably a reason in the mind of the painter, this reason may not be as simple as height, aspect or proximity to water but rather something that is not visible today. In parts of North America there is evidence that artists chose to paint specific categories of images at different altitudes, thought to be a representation of their belief in a tiered cosmos (Loendorf 2004). While in southern Africa there have been attempts to investigate shelter use based on altitude, this has not been fruitful (Challis *et al.* 2012).

The geology of the area influences the final 'look' of a rock painting, both because of differences in shelter shape and size but also pigments on different substrates may be visually different. Rock types may have varying absorbency, structure, shelter (or cave) shape and size which will have an effect on the final image or composition. Geology as well as climate may also affect the way the art weathers over time (Jerardino 1999: 65). Differing preservation between the art in the southern and south-Western Cape and the Maloti-Drakensberg has long been commented on (e.g. Burkitt 1928). This led to assumptions that the art in the latter area is more recent. Although this may well be the case in some areas, the few dates that are available do not support this supposition. There are dates for the Cederberg rock art in the Western Cape of more than 3000 years ago (Jerardino and Swanepool 1999), but others are only 500 ± 140 BP (van der Merwe *et al.* 1987). The earliest dates from Maclear the Maloti-Drakensberg are 2998–2381 cal BP (Bonneau, Staff *et al.* 2017) with many dates clustering around 2000 years ago. These dates suggest that natural factors such as rock porosity may account for some of the differences in preservation. A more thorough programme of dating in both areas will be needed before this idea can be tested.

In both study areas habitable shelters occur. For the most part artists have chosen sites that are easily accessible and that have a smooth substrate for painting; one that is not heavily weathered. The art of the Groot Winterhoek is painted in shelters formed in the quartzitic sandstone of the Cape Fold Belt (Fig. 3A). The shelters are often dome-like with smooth sandy floors (Fig. 3B). Seldom are there large smooth

panels in which to paint large complex scenes, rather the shelters present a surface which is faceted (Fig. 3C). Seldom are more than two or three such shelters found in a given river valley and painted shelters are often widely dispersed. Many of the shelters have deep crevices or tunnels extending into the hillside. In contrast, the art of the Barkly East District is painted on the Clarens Formation Sandstone (Fig. 3D). Elongated shelters are the norm (Fig. 3E), often with many shelters in a given valley. There are many large smooth surfaces available for painting (Fig. 3G). Deep shelters and caves are rare.

The differing geology, in this instance the availability of panels, may point to one reason for the seeming lack of ‘scenes’ in the Groot Winterhoek Mountains (e.g. Willcox 1984: 203). The faceted nature of the rock surface in the latter area means that shelters often have various groups of paintings separated across different surfaces (Fig. 3C) in contrast to the longer panels which seem to make for larger more coherent compositions in the Barkly East District (Fig. 3F).



Fig 3: A: Folds in the quartzitic sandstone of the Groot Winterhoek Mountains showing one painted site. B: Dome-like painted shelter in the Groot Winterhoek Mountains. C Dog and Goat Cave, showing the faceted nature of the painted surfaces. D: Shelters in the Clarens Formation sandstone of the Barkly East District. E: Elongated shelter, Barkly East District. F: Large smooth painted surface, Barkly East District. (Photos A–C: G. Laue, D–F: RARI).

The aspect of shelters chosen differs between areas (Fig. 4). In the Barkly East District 89% of the sites face between east and north-west (Lewis-Williams 1981a: 17), while only 66% of the sites in the Groot Winterhoek Mountains face these directions. Although cultural factors may play a role, temperature differences between the two areas might have been a bigger factor. In the Barkly East District mean temperatures in January are less than 20°C and mean winter temperatures in July below 5°C (Grab and Knight 2015) leading to an avoidance of the colder, often damp, south facing shelters. The Groot Winterhoek Mountains are more temperate with January mean temperatures between 20–22°C and mean July temperatures between 12–15°C making south and south-east facing shelters slightly more hospitable (Grab and Knight 2015). The geology and the flow of the rivers would affect where cave formation occurs and thus also plays a role in aspect difference.

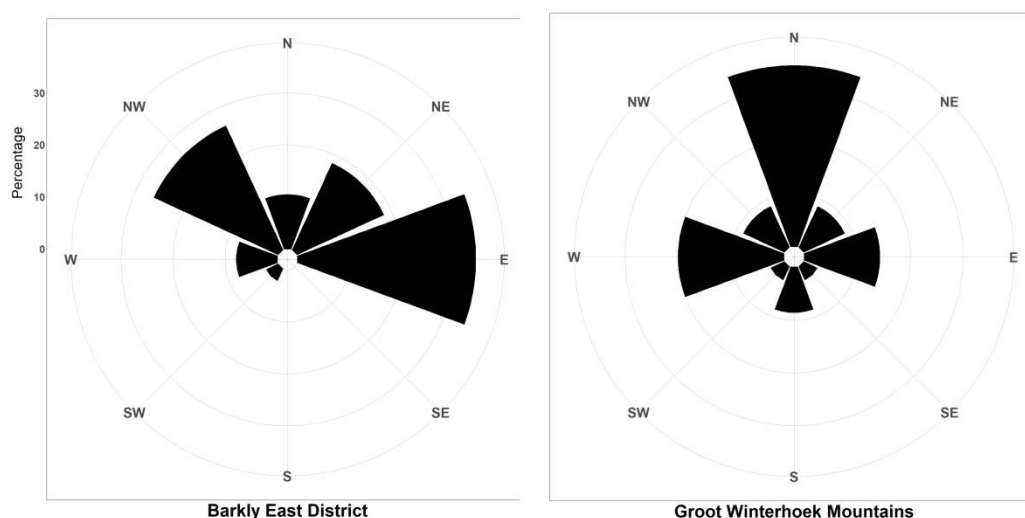


Fig. 4: Aspects of Shelters in the Barkly East District compared with those in the Groot Winterhoek Mountains.

Art placement

In many rock art traditions the placement of the art does not seem to be random. In Europe the artists chose to enhance rock features to create an image (drawing out the potency/potent creatures from the other world and fixing it/them) (Clotte and Lewis-Williams 1998; Clotte 2001: 476, fig. 15.19) while in southern Africa images were painted to look as if they are emerging from or disappearing into the surface (e.g. Lewis-Williams and Dowson 1990; see Clotte 2001: 476, fig 15.20; Gjerde 2010: 417–419 for similar practices in European rock art). It is not only the physical rock

surface that could be important, but the sound it makes. Work on the engravings shows that aspects beyond the visual may have had an influence (Ouzman 2001), for example, that acoustics may have influenced the painter to choose a site (e.g. Ouzman 1997; Diaz-Andreu and Benito 2012; Mazel 2011).

In both the Barkly East District (Lewis-Williams 1981a: fig. 23) and the Groot Winterhoek Mountains (Laue 2016: fig. 6), the artists have used the cracks and steps in the rock surface, consistent with the pan-San belief in the spirit world being behind the rock face (Lewis-Williams and Dowson 1990). In the Groot Winterhoek Mountains there seems to be an added dimension: sites were chosen for the deep tunnels and crevices, with over 70% of painted sites having these features (Laue 2017: 150). Hollmann (2005a: 31) also working in the southern Cape has noted that some swift-tailed therianthropes are painted as if they are flying out of these deep tunnel like features (see also Ouzman and Wadley 1997).

Table 2: Choice of location in the Barkly East District and Groot Winterhoek Mountains

Barkly East District	Groot Winterhoek Mountains
Clarens Formation Sandstone Long smooth surfaces for painting No obvious reason for shelter selection 89% of shelters face between east and north-west Painters use rock features such as cracks and steps	Cape Fold Belt Faceted surfaces for painting Possible selection of shelters with tunnels and crevices More variety in the direction shelters face Painters use rock features such as cracks and steps

In both areas shelters are found and used, but differing geology has given the art a different ‘look’ in the two areas. Long smooth surfaces in the Barkly East District have given rise to complex panels while the faceted surfaces found in the Groot Winterhoek Mountains mean that much of the art is painted in small groups on isolated facets. Geology may have also led to different reasons for shelter selection. The different climate may have also had an impact on the range of shelters chosen for painting. In both areas there seems to be a similar belief that the rock surface was a veil between worlds and images are painted as if entering or leaving the rock surface.

Choice and creation of paints

The manufacture of both the pigments and the materials used to apply them have their own *chaîne opératoires*, including resource procurement, manufacture, use and in the case of pigment storage (Fiore 2007). Unfortunately very little is known about how the pigments were made or how they were applied to the rocks. In both case study areas the very fine painted details indicate that brushes of some sort must have been used. Feathers, brushes made of feathers, brushes made of animal hair and prepared tendons have been proposed as applicators (Rudner 1982: 47–48; see also Bassett 2001). One very notable difference between the Groot Winterhoek Mountains and the Barkly East District is that in the former hands or fingers were sometimes used to apply pigment as seen by the presence of handprints, finger dots and finger smears⁴. Lewis-Williams (1981a) makes no note of handprints or finger marks in the Barkly East District, while such marks occur at 63% of sites in the Groot Winterhoek Mountains.

Rudner (1982) compiled an extensive inventory on the possible make-up of San paints based on historical accounts. Unfortunately “there is virtually no primary information” (Rudner 1982: 264). It is likely that a large variety of binders were used including, plant saps, honey, blood and water, but the chief media were fats (Rudner 1982: 264). Organic binders rarely survive (cf. Villa *et al.* 2015), but recently work has been undertaken on the inorganic pigments still found on the rock face. Chemical analysis of rock art pigments, from the Eastern Cape in South Africa indicates that two different types of red pigment were being sourced and sometimes mixed, while carbon black principally was used for the black pigment (Bonneau *et al.* 2012: 292).

Materials used are based on both availability and selection. There is archaeological evidence in Southern Africa for active preference of particular pigment colours dating back to the Middle Stone Age (Hodgkiss 2017), long distance travel for

⁴ There has been debate as to whether handprints are San or Khoekhoe in origin (e.g. Rudner and Rudner 1959; Van Rijssen 1994; Manhire 1998). In the absence of other geometric art associated with the Khoekhoe (see Smith and Ouzman 2004) and the way these marks are integrated into fine-line compositions, I argue that, at least for the Groot Winterhoek Mountains, these images were made by the San (Laue and Pinto in prep).

specific types of pigment (e.g. Steedman 1835; Rifkin 2015), and ethnographic evidence for some pigments being more highly regarded than others (How 1962). There is also information pointing to detailed rituals around pigment preparation (How 1962). This evidence points to either a selection or pigment manipulation exercised within the constraints of pigment availability; differences in colour of pigment relate to both the raw material selected as well as preparation techniques.

Pigment analysis has not yet been undertaken in the Groot Winterhoek Mountains or in the Barkly East District, so only a colour comparison was done. Figure 5 shows a comparison of pigment colours used in the painting of monochrome human figures. Lewis-Williams (1981a: 134) only quantifies red, black and white pigments. The assumption is that other colours were not present or present in such low numbers as to be negligible. The dominance of red and lower amounts of white and black in the Groot Winterhoek Mountains may be due to preservation issues discussed above, but the high number of yellow images stands out. In the bichrome human figures, yellow is the second most common colour in 65% of cases versus zero in the art of the Barkly East District. No distinction is made between light and dark red in the quantitative data from Barkly East, but personal observations and a survey of the images (<http://www.sarada.co.za>) from the District indicates a preference for a dark maroon red in contrast to the bright red found in the majority of sites in the Groot Winterhoek Mountains (Fig. 6).

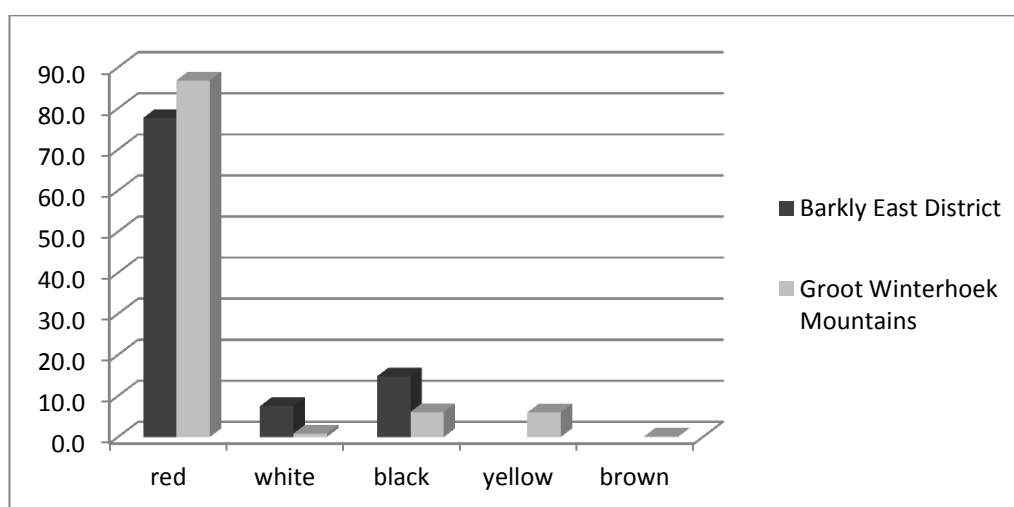


Fig. 5: Comparison of colours used to paint monochrome human figures in the Barkly East District and the Groot Winterhoek Mountains

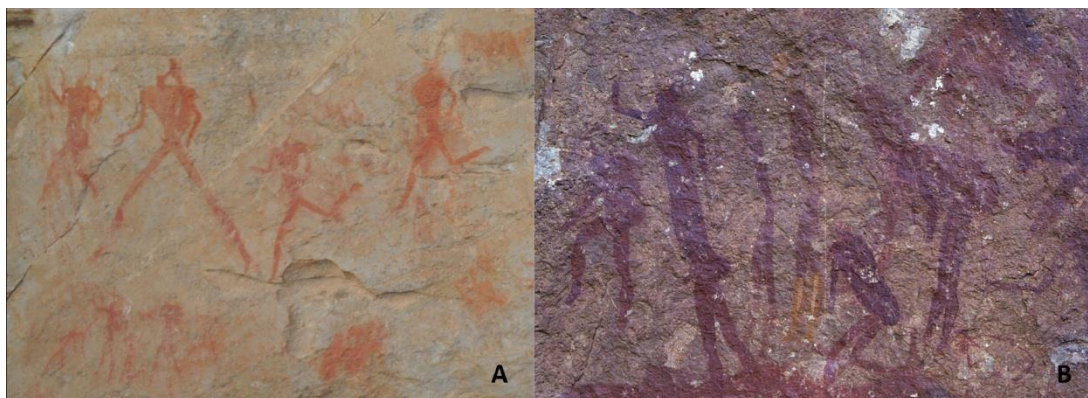


Fig. 6: A: Bright red images common in the Groot Winterhoek Mountains. B: Darker maroon red seen at many of the sites in the Barkly East District.

Table 3: Choice of pigments in the Barkly East District and Groot Winterhoek Mountains

Barkly East District	Groot Winterhoek Mountains
Red pigment is the most commonly painted Painters tended to use a dark maroon red Black and white are the next most common colours used Fine line images painted with a brush No evidence for use of fingers or hands when painting	Red pigment is the most commonly painted Painters tended to use a bright red Yellow and black are the next most common colours used Fine line images painted with a brush Fingers and hands are used to apply pigment

These differences in colour could be due to pigment availability, preparation methods or ‘choice’. However, it is clear that pigment colour is an important factor to consider when investigating difference. The pigments selected seem to come from a limited pallet common to both areas but the proportions and hues of the colours chosen are different. Future work on pigment analysis may be able to further refine the information in this stage of the sequence. Differences in pigment preparation and binders are also possible. In both areas there is a similarity in the way the pigment is applied to the rock surface and it is thought that some sort of a brush must have been used. A notable difference in the Groot Winterhoek Mountains is that fingers and hands were sometimes used to apply pigment to the rock surface in the form of hand prints and finger dots.

Choice of Motifs

What is depicted in the art is often culturally specific, but environmental factors also play a role. The types of animals painted in the art are usually limited to those found in the area, but there is also a cultural aspect to which animals are painted and which

are not. Springbok are commonly painted in Namibia (Lenssen-Erz 1994), but not in either of the study areas. Historically Springbok are not found in the Groot Winterhoek Mountains (Skead 2007) but there is evidence that they occurred in at least small numbers in the north-Eastern Cape (Feely 2014). They are not painted in either of the study areas.

The common method of acquiring imagery through trance can explain many of the commonalities that are seen throughout the subcontinent such as depictions of the dance, fragments of the dance (dance postures), therianthropes, metaphors of trance such as flight and underwater. The fact that visions are shared amongst more limited groups of people can explain regional variations and differences. What is already painted in the shelters will also influence future compositions.

Much of the San imagery that has been put forward as quintessentially shamanic comes from the Maloti-Drakensberg, including the Barkly East District. Lewis-Williams (1994: 145) points out that images of nasal haemorrhage are “one of the distinguishing features of paintings of trancing shaman”. While this is true for the Barkly East District, there are no unequivocal paintings of nasal haemorrhages in the Groot Winterhoek Mountains, yet, in terms of other criteria, the art from this area is clearly shamanic in origin (Laue 2017). Two other trance postures, seen as indicators of shamanic activity in the Maloti-Drakensberg, the ‘arms-back posture’ and ‘hand to nose posture’ (Lewis-Williams and Dowson 1989) are very rare in the Groot Winterhoek Mountains (Laue 2017: 182–183). The bending forward trance posture is seen at a number of sites in both areas.

Images of flight, death and underwater have been proposed as metaphors of trance (Lewis-Williams and Dowson 1989: 50–57). In both areas, images of flight and transformation are found (Fig 7). In the Barkly East District these are in the form of antelope headed therianthropes often depicted with their upper limbs in a flight posture (Fig. 7A). These figures are found throughout the Maloti-Drakensberg area and have been variously called flying-buck, trance-buck or alites (e.g. Lee and Woodhouse 1964; Pager 1971: 342; Vinnicombe 1976: 239–244; Lewis-Williams 1981a: 99). In the Groot Winterhoek Mountains flight and transformation are

expressed in the form of swift- or bird- therianthropes (Laue in press) (Fig 7B). These swift-tailed figures with human heads are found with a limited distribution along the southern Cape coast (Hollmann 2005a, b). The underwater metaphor is often expressed by showing fish or other water creatures seemingly out of context ‘swimming’ around human figures or terrestrial animals. Although, there are no unequivocal examples from the Barkly East District such images are found in the greater region and there is a fine example from the neighbouring Lady Grey District (Lewis-Williams and Dowson 1989: fig. 40). Such images are found in the Groot Winterhoek Mountains (Laue 2017: fig. 7). The death metaphor is found in both areas in the form of upside down antelope.

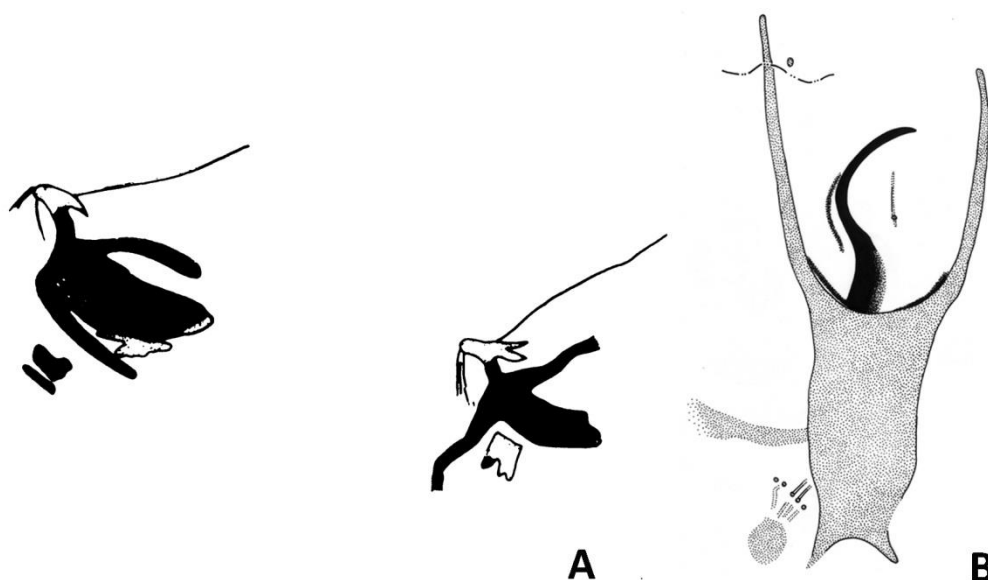


Fig. 7: A: ‘Flying buck’ or ‘trance buck’ from the Barkly East District (after Lewis-Williams 1981a: 99). B: Swift-tailed figure from the Groot Winterhoek Mountains.

A category of images that is much more common in the Barkly East District are therianthropes. Lewis-Williams recorded a total of 54 therianthropes from 38 sites. Of these 77% have antelope heads. Of the 37 sites documented so far in the Groot Winterhoek Mountains there are only 13 therianthropes, and only two with antelope heads (the others are part-human, part-bird).

Thin red lines (red lines fringed with white dots) (Lewis-Williams 1981b; Lewis-Williams *et al.* 2000) seem to be restricted to the Maloti-Drakensberg area. They are seen in the Barkly East District (Lewis-Williams and Pearce 2009). These lines have

been argued to represent threads of light (Lewis-Williams *et al.* 2000). Lewis-Williams and Pearce (2009: 51) contend that for San viewers of the art the threads may have been part of a web that linked shelters as shamans linked people by their out of body journeys. There is a single example of a red line fringed with white dots in the Groot Winterhoek Mountains (Laue 2017: fig. 22). It is painted in the same way as those in the Barkly East District. As far as I am aware this is the most southerly and westerly example of one of these lines and the only one seen out of the Maloti-Drakensberg area.

Many similar motif types are found in both areas but they occur in different ratios. Elsewhere it has been demonstrated that there are quantitative differences in subject choice between regions (e.g. Hollmann 1993; Laue 1999). I am not arguing that people were specifically painting certain proportions of images, but rather that people in different areas were influenced by whom they learned from and what they saw painted. In both areas human figures outnumber those of animals and males outnumber females but the differences are more marked in the Groot Winterhoek Mountains (Fig. 8). Basing sex purely on the presence or absence of breasts or penis, in both areas indeterminate figures are the largest with this category making up 81% in the Barkly East District and 89% in the Groot Winterhoek Mountains. This category has been excluded from the bar charts.

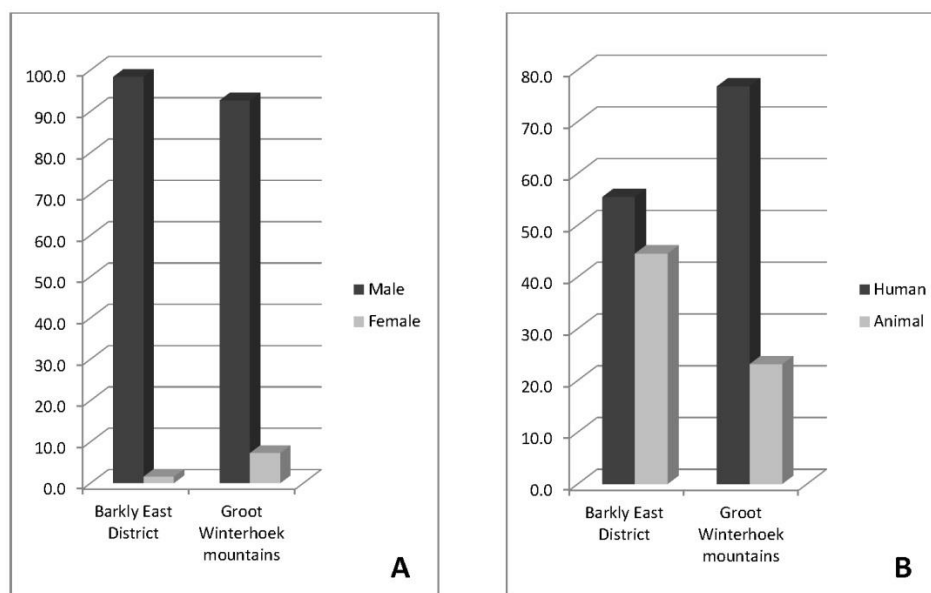


Fig. 8. A: Male vs female figures. B: Human vs animal figures in the Barkly East District and the Groot Winterhoek Mountains.

Antelope make up the largest proportion of animals in both areas: 93% in the Barkly East District and 61% in the Groot Winterhoek Mountains. Poorer preservation in the Groot Winterhoek Mountains means that there is a large category of indeterminate animals (23%) many of which are probably antelope. In both areas eland are the most numerous animals with rhebok next followed by a small percentage of hartebeest (Fig. 9). Again, preservation issues in the Groot Winterhoek Mountains, account for the far higher number of indeterminate antelope.

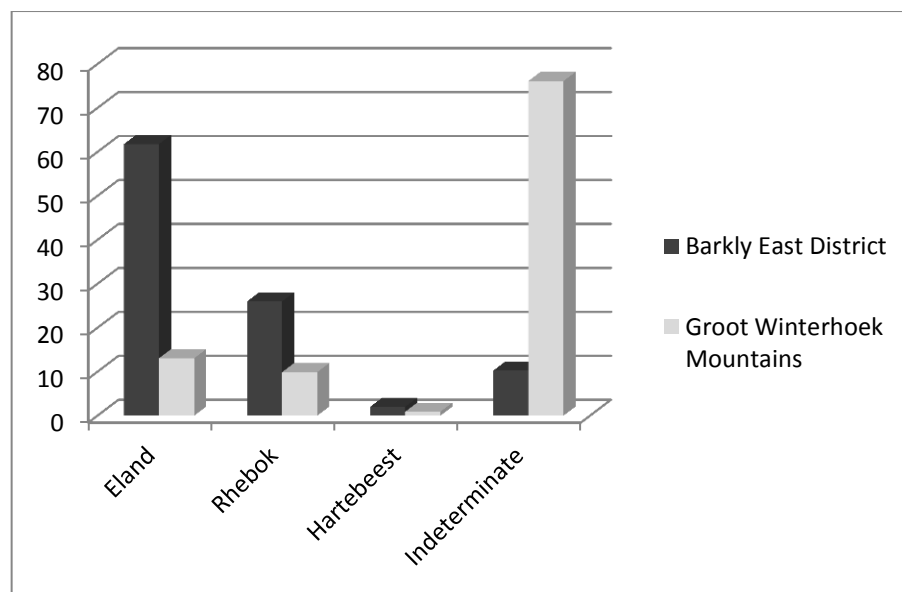


Figure 9: Antelope images compared from the Barkly East District and the Groot Winterhoek Mountains

There are some notable differences in the presence and absence of other animals (Fig. 10). The Barkly East District has a relatively high presence of felines and bushpigs and high number of domesticates with cattle making up just over 50% of non-antelope animals. In the Groot Winterhoek Mountains, felines and bushpigs are absent, as are domesticates. The highest number of non-antelope animal images are birds, baboons (absent in the Barkly East District), elephant and fish. Until the southern Cape art is dated, it is unclear whether the lack of domesticated animals is because the art was made prior to the introduction of cattle, sheep and horses or due to a choice not to paint these animals. Numbers of felines, baboons, birds and elephants painted, point to 'choices' on the part of the painters as these animals occur in both areas.

Some researchers have suggested categorizing the images into scenes such as hunting, dancing (Vinnicombe 1967: 139), groups made up of images seemingly related or processions, groups of similarly painted figures in file (Parkington and Manhire 1997). I have excluded these categories as they are subjective, especially the groups and scenes category.

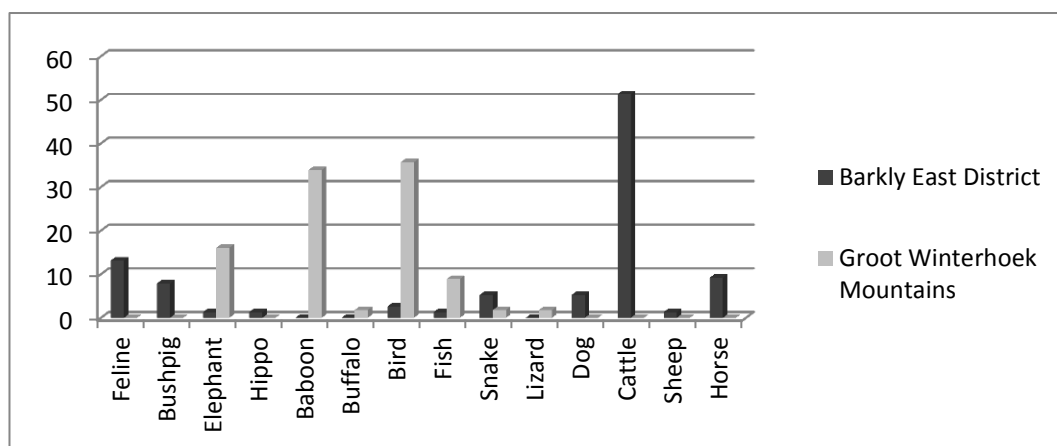


Figure 10: Comparison of animal images (excluding antelope) from the Barkly East District and the Groot Winterhoek Mountains.

Table 4: Choice of motifs in the Barkly East District and Groot Winterhoek Mountains

Barkly East District	Groot Winterhoek Mountains
Depictions of nasal haemorrhages	No depictions of nasal haemorrhages
Arms-back posture' and 'hand to nose posture' are common	Arms-back posture' and 'hand to nose posture' are rare.
Bending-forward posture is found	Bending-forward posture is found
Flight and transformation is seen in the form of 'trance-buck'.	Flight and transformation is seen in the form of swift-therianthropes.
Underwater and death imagery found	Underwater and death imagery found
Antelope headed therianthropes common	Antelope headed therianthropes rare
Thin red lines seen at a number of sites	Only one example of a thin red line
1.6% of human figure are female	7.3% of human figures are female
Comparing animal and human figures, 55.5% are human	Comparing animal and human figures, 76.8% are human
Eland are the most commonly painted antelope by far at 61.8%	Eland are the most commonly painted antelope, but only slightly higher than rhebok at 29%
The most commonly painted animals other than antelope are felines, bushpigs, cattle and horses	The most commonly painted animals other than antelope are elephant, baboons, birds and fish

Proportions of the images painted and the kinds of images painted point to differences between the two areas. These probably relate to differences in the community of practice in which an artist worked and what would have been previously painted on the rock face. The similarities are likely due to shared belief systems stemming from the pan-San cognitive system. The one image that stands out

is the single example of the thin red line in the Groot Winterhoek Mountains. It is unlikely that so specific an image would have been developed independently and this similarity may point to a rare example of contact or information exchange between the two areas. There have been suggestions (Hampson *et al.* 2002; Hampson 2015) that motif, and their relative frequencies, should be the sole factor to be considered when investigating regional difference. As shown here there are quantitative differences between the two areas but many of the motifs are very similar (human figures, antelope and therianthropes). Differences in motif ratios are just one part of the larger whole that gives a region its character.

Creation of images

There are many ways of making an image. In some cases they are made with an outline (e.g. Layton 1992; Clotte and Lewis-Williams 1998) and in others with dots (Layton 1992; 108–109), or filled with solid or blended colour like the majority of San paintings. Images can be monochrome (single colour), bichrome (two colours) or polychrome (multiple colours). Polychromes can be shaded or painted with blocks of colour. Through formal analysis one can investigate the choices made by the artist by studying general rules of picture making (e.g. Clegg 1987; Smith 1998). There are general ways that images are painted world-wide; a tendency to choose the perspective which shows the most detail. For human and antelope figures this is the lateral perspective, for lizards a top down etc. (Smith 1998). Many of the San images are painted in this way. Mammals painted side-on, human figures either side-on or in a twisted perspective, where the legs and head are painted side on while the torso is painted facing forward. Related to this is the choice of how the head will be depicted, something which is much less uniform than the way the body is depicted in San art. Figures can be painted as if stationary or in movement. When forming an image an artist will also need to make choices about clothing, equipment and body decoration. I have also included surface preparation in this section as it will have an impact on the final ‘look’ of the image.

There are no published outlined or dotted images from the Barkly East District. In other parts of the Maloti-Drakensberg Mountains, there is no evidence for outline images and dotted paintings are very rare (Smits 1971: 18). At the sites surveyed in

the Groot Winterhoek Mountains there is only one example of an outline image and no images made up of dots.

Figure 11 shows the percentages of monochrome, bichrome and polychrome images. In both areas monochromes are the most common technique used to paint human figures, then bichromes and the smallest category polychromes. Some of the differences between the two areas might be due to differential preservation as white and black tend to disappear more quickly than the red ochre pigments, but it is probably that there was also a tendency in the Groot Winterhoek Mountains to paint more monochromes. This is especially true amongst the animal figures. One of the most recognisable differences is the near absence of shaded polychrome images in the Groot Winterhoek Mountains. Some polychromes have an abrupt transition of colour, while in the shaded ones the colours have been skilfully blended together. Lewis-Williams (1981a) does not give percentages of shaded images, but a survey of images from the Barkly East District on the SARADA (<http://www.sarada.co.za>) database shows that a high percentage of antelope images are shaded (Fig 12). This is in contrast to only one known example from the Groot Winterhoek Mountains (Laue 2016: fig. 10).

In line with most San art mammal images in the Groot Winterhoek Mountains are shown in a lateral perspective one (Fig 13A). The only deviation from this form is two images where the antelope head is painted as if it is looking backwards. This is in contrast to the Barkly East District, where, although the lateral profile is the most common, other perspectives are shown (Fig 13B–D). Animal images in the Groot Winterhoek Mountains are seldom depicted in movement, as if they are walking or running, while in the Barkly East District depiction of movement is much more common.

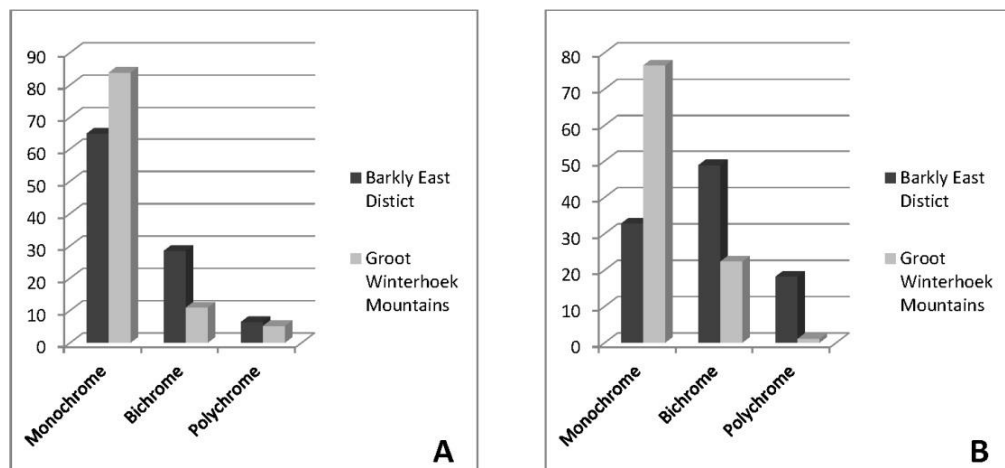


Figure 11: A: Comparison of: monochrome, bichrome and polychrome human figures. B: Comparison of: monochrome, bichrome and polychrome animal figures.



Figure 12: Shaded polychrome eland from the Barkly East District (Photo: RARI)

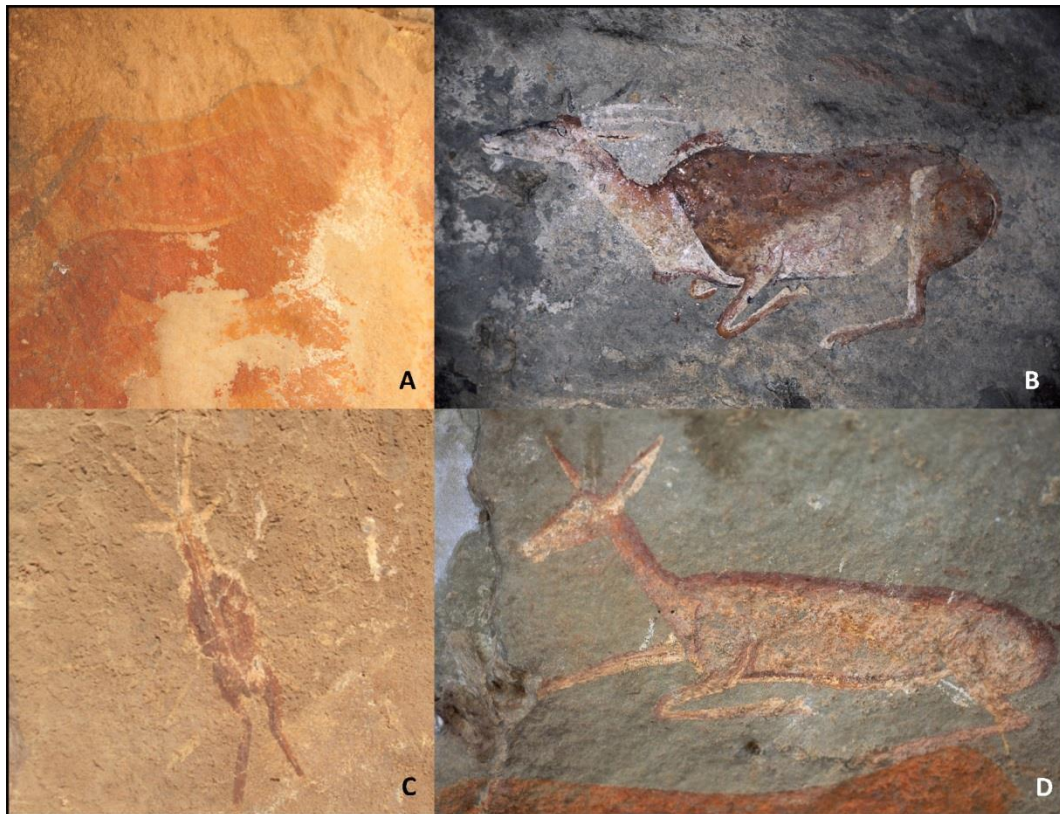


Fig. 13. A: Groot Winterhoek Mountains (Photo: G. Laue) B–D: Barkly East District (RARI).

The ways in which human heads are painted differ proportionally between the two areas. Throughout both regions the head types seen are either antelope or human with the basic shapes being round, concave, hooked or a straight line, with the occasional idiosyncratic depiction. Round heads are common in both areas. The greatest difference is the high percentage of concave heads in the Barkly East District vs the high percentage of hook heads in the Groot Winterhoek Mountains.

In both areas human figures are most commonly painted without clothing (79% in the Barkly East District vs 83% in the Groot Winterhoek Mountain). When clothing is shown, a kaross is the most common article of clothing. Figure 14 shows the percentages of items painted being carried by the human figures. The most striking differences are the greater number of bags and digging sticks depicted in the Groot Winterhoek Mountains. A digging stick is usually seen as woman's equipment (Lewis-Williams and Dowson 1989: 114) the greater number of female images in this area might go towards explaining them. The larger percentage of bags could point to

varying beliefs about the ritual and religious significance of bags (e.g. Lewis-Williams and Dowson 1989: 114).

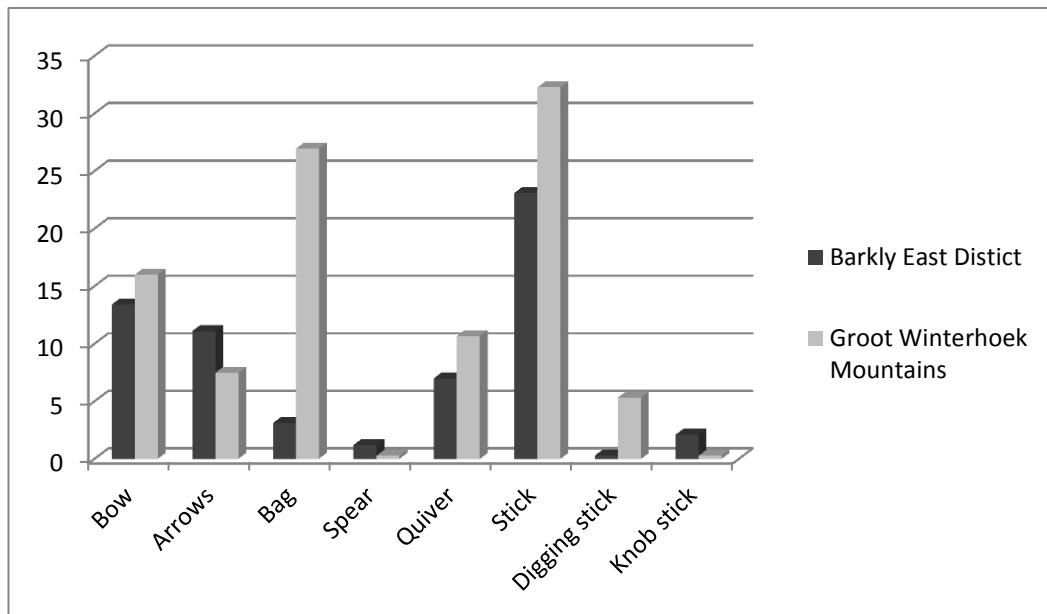


Fig. 14. Percentage of equipment held by human figures in the Barkly East District and the Groot Winterhoek Mountains.

Investigations by Bonneau *et al* (2012: 288) seem to indicate that there may have been some sort of preparation of the rock surface prior to painting (see also Hall *et al.* 2007). Although natural factors cannot be ruled out one possible explanation is that the painters were using an acidic plant or fruit juice which would make the rock surface more porous and allow the paint to adhere more easily (Bonneau *et al.* 2012: 289). Although no study has been undertaken in either area, the above evidence of surface preparation comes from the Maloti-Drakensberg area into which the Barkly East District falls. Many of the paintings in the Groot Winterhoek Mountains have a smudgy red background (Fig 16) which could point to a difference in surface preparation. Either the background was not prepared which led to a smudging of the pigment or pigment was used in the preparation of some of the surfaces.

Table 5: Creation of images in the Barkly East District and Groot Winterhoek Mountains

Barkly East District	Groot Winterhoek Mountains
No outlines or dotted images are seen, all are filled 65% of the human figures are monochrome and only 6.5% polychrome 33% of the animals are monochrome and 18% polychrome Shaded polychromes are common. Antelope are shown from a variety of perspectives Antelope are often shown walking or running The most common head type is round followed by concave 79% of human figures are shown without clothing Sticks bows and arrows are the most commonly painted equipment Digging sticks are 0.3% of the equipment Possible surface preparation	There is one outlined image with the rest being filled 83% of the human figures are monochrome and 5.2% polychrome 77% of the animals are monochrome and only 1% polychrome Only one shaded polychrome is seen. Antelope are shown in lateral profile only. Movement is rare in antelope images The most common head type is hooked followed by round 83% of human figures are shown without clothing Sticks, bags and bows are the most commonly painted equipment Digging sticks are 5.3% of equipment Red smudgy background which could be due to surface preparation

Some of the differences between monochrome and bichrome could be due to preservation. The starkest difference is the much higher percentage of bichromes and polychromes and the presence of shading in the Barkly East District. The sole shaded polychrome in the Groot Winterhoek Mountains could point to limited information exchange between the study areas. Differences in the types of equipment depicted is most likely due to difference in communities of practice. There are indications that different surface preparation techniques were carried out in the two areas.

Much of this part of the *chaîne opératoire* falls under what the earlier researchers would have called style, but without the subjectivity of describing figures as ‘humorous’ or poorly depicted. The way an image is depicted varies widely between the two areas, so while a simple count shows a high incidence of antelope and most of these being eland the way they are painted is very different. It is the same with the human figures. The figures have a very different ‘look’ between the two areas. These are factors that are ignored by presence/absence motif studies into regional difference.

Use of the images

The final stage in this rock art *chaîne opératoire* for rock art is the consumption of the art. How the art was viewed and used impacts on how it 'looks' when we see it. This final stage ties back to the reason for making the art. Some art was made once off, such as initiation art (e.g. Namono and Eastwood 2005), in other cases the art is revisited and retouched or repainted (e.g. Mowaljarlai 1988; Pearce and George 2011), touched (e.g. Laue 2000) or revisited and other images superimposed on it (e.g. Lewis-Williams 1972).

Evidence points to art, pigments and even the surface it was painted on being potent (e.g. Lewis-Williams 1986; Lewis-Williams and Pearce 2009). The paints were made with powerful substances including eland blood (How 1962) and were painted on the rock surface, a veil between the spirit world and the 'real' world (Lewis-Williams and Dowson 1990). The art was not something made just to be looked at, people interacted with it after it was made.

A noted difference between the art of the Groot Winterhoek and that in the Barkly East District is the lack of superpositioning in the former. Superpositioning is the practice of painting over earlier paintings, sometimes up to seven different layers (Russell 2000). Smits (1971: 17–18) differentiated between 'true superposition' where younger images are painted over older ones (Fig 17), versus 'intentional superposition' where the superpositioning was more immediately executed by the artist to convey a group or scene (see also Pager 1971: 326). Although rare, this latter type of superpositioning is found in Groot Winterhoek Mountains (e.g. Laue 2017: fig. 7) but true superpositioning is even rarer except in the case of handprints which are more commonly placed over earlier images. When images are superimposed there are seldom more than two layers in contrast to up to five layers in the Barkly East District (e.g. Fig. 15).



Fig. 15. Superpositioning in the Barkly East District.

Some researchers have tried to use superpositioning to investigate rock art chronology, but with the lack of multiple dates from different layers it is not easy to draw robust conclusions. The images painted above are painted at a later date, but whether these painting episodes were days, years or centuries apart is unknown. Lewis-Williams (1972; 1974) has convincingly argued that superpositioning is not random, it is purposeful and conveyed meaning. The choice to paint over earlier images is not due to lack of space as shelters often have ample suitable rock surfaces available (Lewis-Williams 1974: 99; Pager 1971: 327). The painters of the Barkly East art paid attention to the images on which they chose to execute others. Certain elements were favoured as initial elements and these constrained what was painted above. Similar deliberate superpositioning has also been seen in other parts of the Maloti-Drakensberg (Lewis-Williams 1972; Pager 1971).

There have been arguments that paintings are painted over one another as the paintings already there make a primer (Pager 1971: 326), but this supposition has been shown to be faulty (Lewis-Williams 1974: 99). It is much more likely that the paintings were seen to be imbued with supernatural potency and the makers of the newer art were drawing on this (Lewis-Williams 1986, 1995).

Although superpositioning is rare in the Groot Winterhoek Mountains and indeed the whole southern/western Cape (e.g. Manhire 1981: 19), this does not mean that belief in the potent nature of the art was not widespread. I argue that similar ideas about the power of the painted images existed in both the Groot Winterhoek Mountains and the Barkly East District, but it was the means of accessing and using this power that existed. Ethnographic evidence from the Eastern Cape recorded in the 1980's (Lewis-Williams 1986; Jolly 1986) informs on how dancers would turn and touch the art during the trance dance. In the art of the Groot Winterhoek Mountains this accessing of the potency of the images was manifested through touching and rubbing of images and placing handprints on the rock face. There is evidence of deliberate rubbing and smudging of the images (e.g. Fig 16). The handprints may also have been a means of both transferring potency (through the paint) as well as accessing the potency from the rock surface and the paintings already there.



Fig. 16: Evidence of touching and rubbing from the Groot Winterhoek Mountains.

Table 6: Use of the images in the Barkly East District and Groot Winterhoek Mountains

Barkly East District	Groot Winterhoek Mountains
Up to 5 layers of superpositioning is seen	Superpositioning is rare and if seen is seldom more than two layers
No evidence of touching the rock surface or handprints	Handprints are found at 63% of the sites and rubbing of images has been noted

There are distinct differences between the two areas regarding the consumption or use of the art which affects the ‘look’ of the art. In the Barkly East District painters have deliberately chosen to paint on previous images, while in the Groot Winterhoek Mountains the art has been touched. In both cases the potency of the art was being drawn upon, but in different ways.

DISCUSSION AND CONCLUSION

The choices of imagery painted in both the Groot Winterhoek Mountains and the Barkly East District sites clearly sets these sites within the shamanic world view, but paintings in the two areas show many differences. Similarities can be explained by similar world-views based in the pan-San cognitive system. The means of accessing the imagery through trance and means of learning were likely very similar.

Differences can be explained in terms of both natural and cultural constraints. Natural constraints include geology, pigment availability and climate. Cultural constraints are due the art makers being part of different learning networks or communities of practice. From whom you learn and with whom you interact will influence the final ‘look’ of the images.

Using a motif only analysis of the art without quantification would show the areas to be very similar unless the other factors discussed are taken into account. Earlier researchers placed these two areas into different regions based on style. This analysis confirms what was posited previously, but gives a formal way of describing that difference, one that does not rely on intuition or vague notions of style.

Viewing the art in this way opens many new avenues for research which can further inform on similarity and difference. Experimental archaeology is gaining momentum in Middle Stone Age archaeology (e.g. Wadley *et al.* 2017) but has not had much prominence in rock art research (cf. Bassett 2001; Johnson 1957; Rudner 1982).

Research in this direction could further our understanding of pigment preparation, painting techniques and how geological differences affect the 'look' and preservation of images. New pigment characterisation techniques both in the lab (Bonneau, Staff *et al.* 2017) and in the field (Tournié *et al.* 2011) can give new insight into pigment choices and possibly even differences in procurement strategies. Recent finds of milk residue from 40 000 years ago (Villa *et al.* 2015) gives hope that new experimental techniques may even be able to pick up organic materials in the paint.

The descriptive framework I have proposed here gives us a language to describe difference without resorting to style or skirting around it. Considering each step along the *chaîne opératoire* allows the aspects of the art which previously would have fallen under style to be examined in a more objective manner. Rather than privileging motif as an indicator of regional difference, all aspects of the art that contribute to the final 'look' are given equal preference. Examples from southern African San art are used to show the applicability of this approach to describe difference in rock art, but this framework can be applied to rock art anywhere in the world with slight adjustments. This approach has the potential to become an analytical framework for the investigation of regionality in rock art. Further research in other areas describing the similarities and differences laid out here will allow for the comparison of spatially separated areas.

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CHAPTER 9:

CONCLUSION

This thesis tackles the problem of regional difference in rock art, putting forward new methodological and theoretical ways to investigate this tricky topic. Rather than approaching difference through the vague use of ‘style’ as has so often been done in southern Africa, or by singling out one aspect of the art, such as motif, I move towards a more inclusive investigation that focuses on ‘ways of doing’. The way image making is approached by different San and Later Stone Age groups is dependent on the social and environmental contexts in which the art is produced. New methodological (*chaîne opératoire*) and theoretical (communities of practice) frameworks are used to understand the manifestation of variation in the archaeological record.

Rock art research in southern Africa has for the most part ignored regionality during the last four decades (Paper I). This resulted in both a perception of artistic homogeneity across the subcontinent and a tacit acceptance of outdated cultural-historical views of difference based on vague ideas of style. Moreover, the focus on meaning in San rock art has produced interpretations that are largely divorced from other aspects of the archaeological record which deal with the daily life of Later Stone Age peoples. An understanding of how the differences we see are generated, along with advances in dating, can help situate rock art more firmly into Later Stone Age research.

Papers I and IV outline a theoretical approach to difference, using the notion of ‘communities of practice’. This concept allows us to look at difference as a product of learning and social environment rather than resorting to explanations of ethnicity or language difference. Shared ‘ways of doing’ result in the rock art looking similar. There were probably many different overlapping communities of practice in any one area and these would have resulted in larger constellations of practice that form regions. The approach allows us to conceptualize rock-art regionality in a new way. Information exchange across large distances will cause blurring of any boundaries we

might expect to see, but this does not mean that broad regional differences cannot be studied.

‘Communities of practice’ explains why we see difference, but a method to identify these difference is necessary. The *chaîne opératoire* gives a descriptive framework for investigating difference in rock art (Papers **I** & **V**). Instead of looking only at the end product, the image on the rock, all the actions along the operation sequence from the choice of location to the use of the images are investigated. In this way, both the natural and the cultural parameters that act on the painter and the image can be considered without resorting to the problematic concept ‘style’.

The Groot Winterhoek Mountains provide a case study. Papers **II** and **III** introduce the art of the area by investigating how it fits in with the San rock art known from other areas of the subcontinent, particularly the well-studied areas of the Cederberg and the Maloti-Drakensberg Massif. In the course of this study 37 rock art sites in the previously unexplored area of the Groot Winterhoek Mountains in the southern Cape of South Africa were documented through photography, sketching and tracing. Of the 37 sites recorded, quantitative analysis was undertaken at 28 of them.

A characterisation of the art in the Groot Winterhoek Mountains shows that it fits firmly within the pan-San shamanic worldview that applies to southern African San rock art. A broad interregional comparison shows that the art in the Groot Winterhoek Mountains has more affinities with that of the western/southern Cape art zone, but some aspects of the art point to the possibility of information exchange with communities of the Maloti-Drakensberg. Paper **IV** uses the theoretical approach of ‘communities of practice’ to investigate specific motifs of flight and transformation. Their limited distribution probably represents one community of practice among several in the southern Cape. Similarities to ‘flying-buck’ or ‘trance-buck’ figures in the Maloti-Drakensberg point to similar motivations behind the painting but to a different community of practice. Paper **V** uses a *chaîne opératoire* approach to describe differences between the Groot Winterhoek Mountains and the Barkly East District in the Maloti-Drakensberg. I show how a motif-only approach cannot hope to illuminate the differences between the two areas. Although these two

areas were classified as different regions by those using a stylistic approach, the description of these differences is vague and difficult to quantify. The descriptive framework of the *chaîne opératoire* shows clearly where the differences lie and provides a way for future comparisons to be undertaken in a more systematic manner.

The interpretative approach in southern African rock art has led to much deeper understanding about past religious beliefs; rock art can inform on other aspects of the Later Stone Age as well. Difference in rock art can be used as another thread of evidence to add to the excavated and isotopic data that point to variation in lifeways across space and through time. Moving beyond descriptive interpretations of the differences seen, rock art has the potential to lead to a deeper understanding of social structures and modes of practice that generate different cultural expressions.

This work suggests several future avenues of research which could lead to the development of a *chaîne opératoire* for rock art which moves beyond a descriptive framework to a usable mid-range theory. This would allow the recognition of more detailed communities of practice and a better idea of why regional differences are seen. A more extensive dating programme which dates many images in a single site as well as many sites in different areas would allow a better understanding of how sites are built over time as well as the relationship between sites. Experimental archaeology aimed at understanding how pigments and images were made would give indications as to possible differences in paint and image production across space. Pigment analysis, including XRF, has the possibility of investigating the sources of materials used and thus better identify the colour differences between areas as being due to either natural constraints or cultural choices. Further work in areas between previously defined regions is also needed in order to understand just how blurry the boundaries between different constellations of practice are.

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APPENDIX A

DATABASE OF SITES RECORDED IN THE GROOT WINTERHOEK MOUNTAINS

A total of 37 sites were recorded in the Groot Winterhoek Mountains. All were photographed. Sketches were made at most sites. Selected sites and images were traced. Quantitative analysis was carried out at 28 of the sites.

Site numbers from 1–37 were given to the recorded sites. These site numbers correspond to those in appendices D–G. In line with established practice in South Africa, rock art site location details are not published as this can attract visitors and open the site to vandalism. Thus, all location data, map number, coordinates and site name have been removed from this database. All site location data is archived in the collections of the Rock Art Research Institute, University of the Witwatersrand, where it can be accessed by bona fide researchers. Common names of the sites are given. In some cases these are the names given by the Eastern Cape Division of the Mountain Club of South Africa, but where there was none, the site was either given a name or assigned a site number.

Many of the images are poorly preserved and DStretch (Harman 2006) manipulation was carried out on them. The false colour images make some of the rock paintings more visible (see Chapter 3).

SITE NUMBER: 1

SITE NAME: Bee Cave

SITE DESCRIPTION: The site is a large overhang about 50 m in length, 10 m in width and 20 m in height. The site has a rocky floor with no deposit but some stone artefacts are visible. Paintings are spread around the site. There are nearly two hundred images which include human and animal figures, decorated and undecorated handprints and finger dots.

THREATS TO THE SITE: The preservation of the site is poor. Dust is a problem. The site is visited by members of the public and there is some graffiti.

RECORDING:

Photographs ☒

Sketches ☒

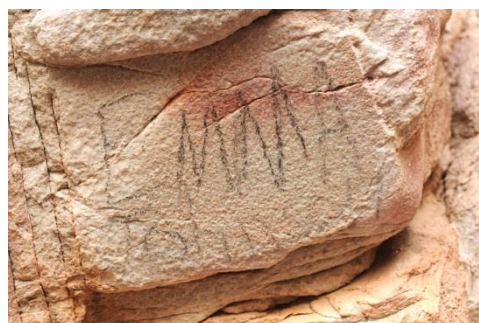
Tracing ☐

Quantitative analysis ☒

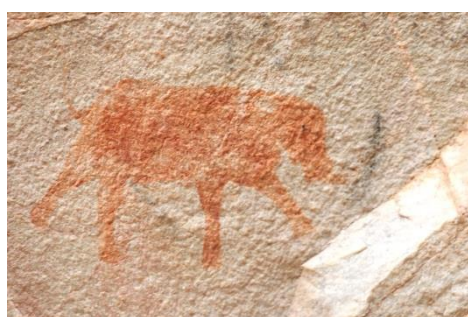
SELECTED IMAGES:



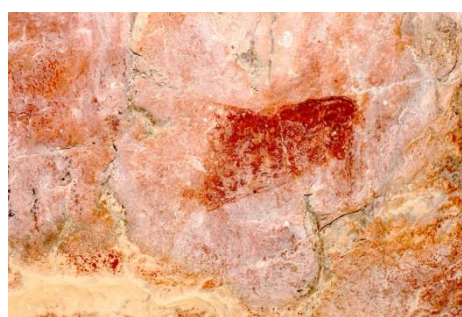
Part of the site. Most of the images are in the left hand corner of the overhang.



Graffiti.



Elephant.



The remains of a bichrome eland.



Handprints including a decorated handprint.



Human figures.

SITE NUMBER: 2

SITE NAME: Waterfall Cave

SITE DESCRIPTION: A large shelter about 30 m in length, 8 m in width and 6 m in height. The site has some deposit and some stone artefacts are visible. There are only thirteen images at the site. Images include indeterminate animals, human figures and some handprints.

THREATS TO THE SITE: Herdsmen have built a shelter in the shelter. There is graffiti at the site.

RECORDING:

Photographs ☒

Sketches ☐

Tracing ☐

Quantitative analysis ☒

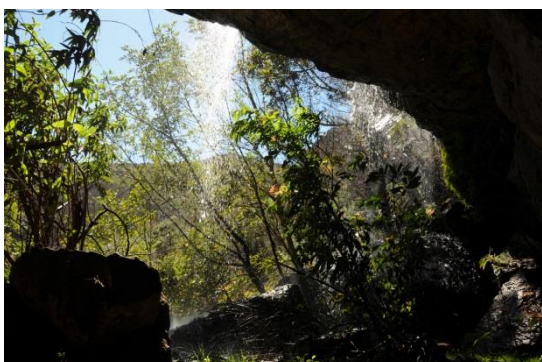
SELECTED IMAGES:



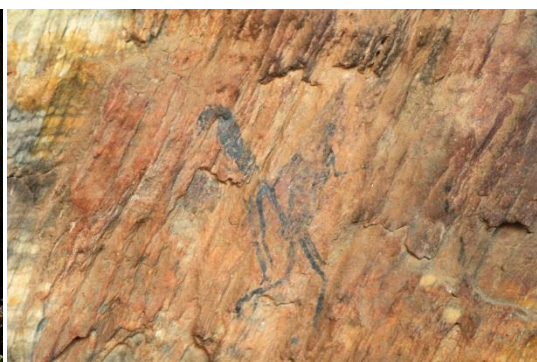
Waterfall shelter.



The herdsman's building on the right hand side of the shelter.



The waterfall that gave the site its name.



Human figures painted in black.

SITE NUMBER: 3

SITE NAME: Echo Cave

SITE DESCRIPTION: A large deep shelter about 17 m in length, 18 m in width and 6 m in height. The site has a flat rocky floor. The site is sparsely painted with only six images, five human figures and a grid-like image.

THREATS TO THE SITE: The site contains a hut, table, chairs and a water tank. It is used regularly and people seem unaware of the rock art.

RECORDING:

Photographs ☒ Sketches ☐ Tracing ☐ Quantitative analysis ☒

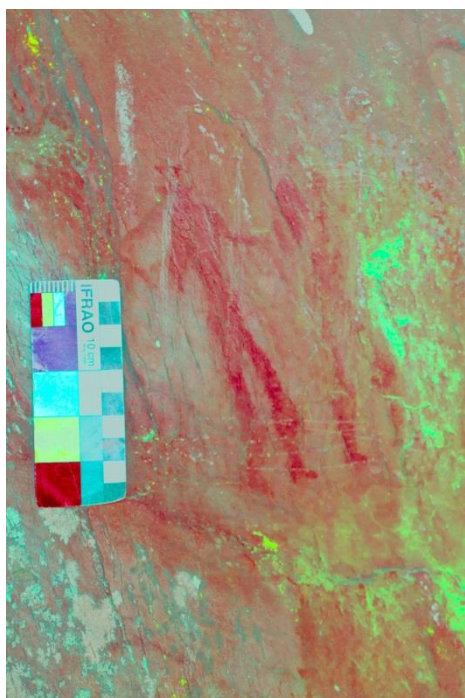
SELECTED IMAGES:



Echo Cave.



Seated human figure.



False colour image of two very faded human figures with some moss growing on them.



Faded human figure with a back apron.

SITE NUMBER: 4

SITE NAME: Elephant Cave

SITE DESCRIPTION: This is a large deep shelter which goes at least 10 m into the side of the mountain while only 8 m wide and 3 m at its highest. The shelter has a flat sandy floor with possible excavation potential. This is one of the most densely painted sites with over three hundred images including human figures, animals and at least 94 handprints.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs



Sketches



Tracing



Quantitative analysis



SELECTED IMAGES:



Photograph looking out of the cave entrance.



Elephant and birds painted on the ceiling of the shelter.



Handprints.



Faded eland, the white has totally disappeared.



Handprints and human figures.



Bichrome antelope.

SITE NUMBER: 5

SITE NAME: BP2

SITE DESCRIPTION: The site is a tiny alcove in the rock face not more than 2 m² and less than 1 m deep. This shelter is unusual as it is the only site identified in the area with animals but no human figures. The site has only 6 antelope painted.

THREATS TO THE SITE: The paintings are exposed to the elements and faded.

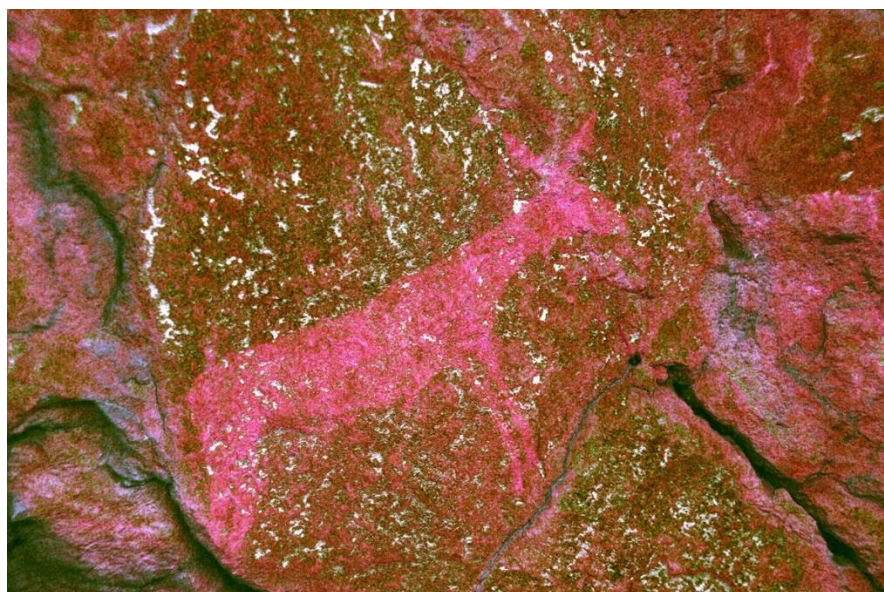
RECORDING:

Photographs ☒ Sketches ☐ Tracing ☐ Quantitative analysis ☒

SELECTED IMAGES:



The site with the six faded antelope visible.



A false colour image of one of the antelope.

SITE NUMBER: 6

SITE NAME: BP3

SITE DESCRIPTION: A long overhang of approximately 100 m with some deeper shelters along its length. Unlike most of the sites in the area this site made up of a conglomerate rock. It has 13 very faded images spread along the length.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☐

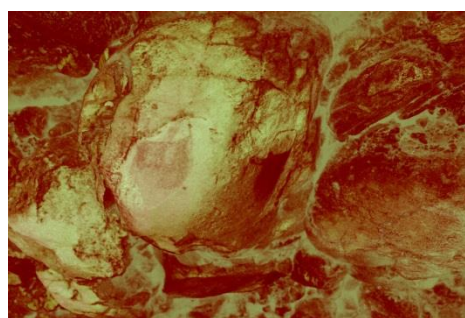
Tracing ☐

Quantitative analysis ☒

SELECTED IMAGES:



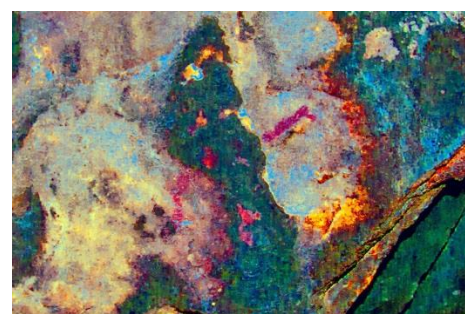
The shelter is made up of conglomerate rock.



False colour images of two red painted bags.



False colour image of a small antelope.



Red running figure covered by black deposit.



One of the best preserved human figures are the site.



Flaked red human figures

SITE NUMBER: 7

SITE NAME: Tokelosh Cave

SITE DESCRIPTION: This site is a large long shelter with a rock floor. There are only six images in the shelter in the deepest part of the shelter.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

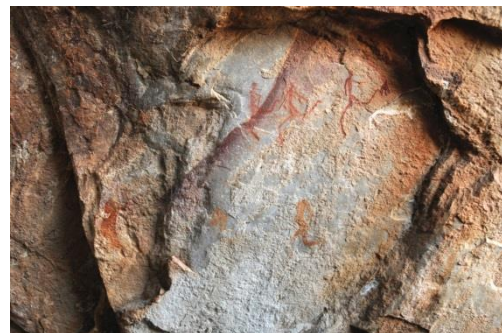
Tracing ☐

Quantitative analysis ☒

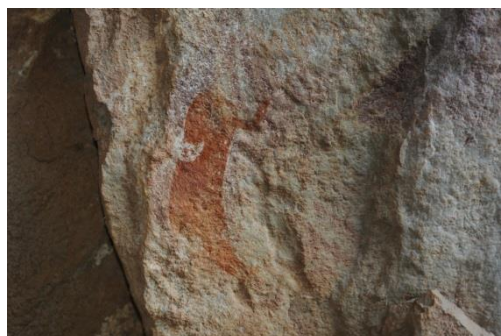
SELECTED IMAGES:



The shelter.



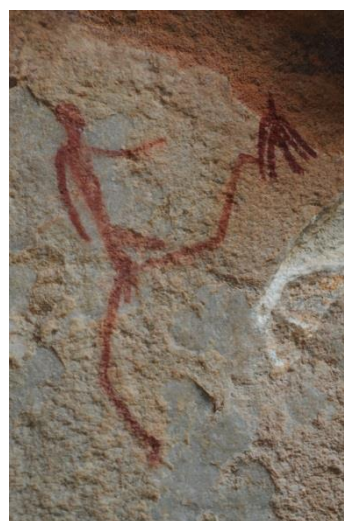
The only paintings in the shelter.



A red figure with white dots on the kaross.



Possible bag.



Running figure.

SITE NUMBER: 8

SITE NAME: Eland Cave

SITE DESCRIPTION: This is a medium sized shelter approximately 14 m in length, 8 m in width and 4 m in height. It has a shallow sandy floor with no excavation potential. There are over one hundred images including animals, human figures and handprints. This site contains the only known shaded polychrome in the Groot Winterhoek Mountains.

THREATS TO THE SITE: Dust.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☒

SELECTED IMAGES:



Eland Cave.



Handprints.



Monochrome antelope.



Shaded polychrome eland.



Close-up of the only bird image at the site.



Bichrome human figure.

SITE NUMBER: 9

SITE NAME: Brommer Cave

SITE DESCRIPTION: An over 10 m long over hang which is about 2 m wide and about 2.5 m high. Some LSA pottery was present. The site is densely painted with about three hundred paintings of varying preservation.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

SELECTED IMAGES:



The front of the shelter is hidden by dense vegetation.



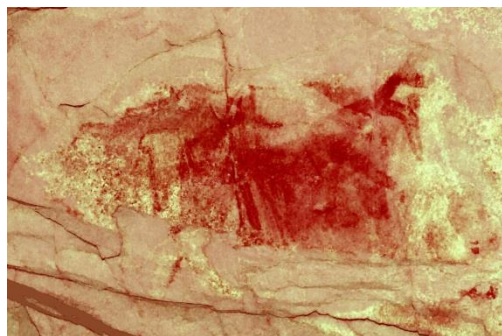
Human figures painted in black and partly obscured by a flake.



Red human figure and antelope.



Possible giraffe painting.



Human and antelope figures on a smudgy yellow background.



Some of the best preserved bichrome human figures at the site.

SITE NUMBER: 10

SITE NAME: DP2

SITE DESCRIPTION: Long dark overhang with a flat stone floor of about 12 m in length and 3 m in width and height. The site is relatively sparsely painted with about thirty images. This site contains one of only two recorded antelope headed therianthropes in the Groot Winterhoek Mountains.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

SELECTED IMAGES:



Shelter.



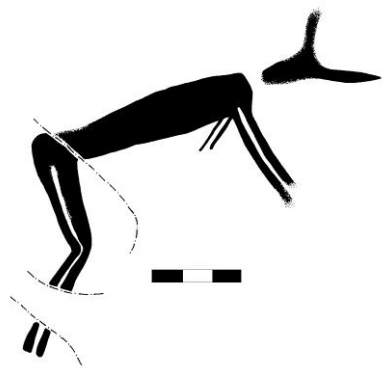
False colour image of a small antelope.



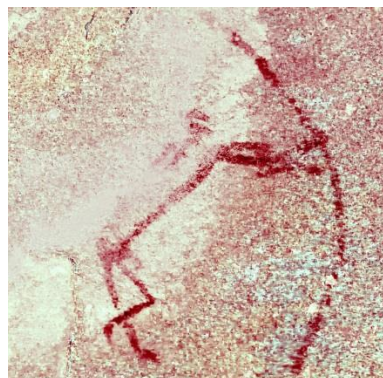
False colour image of a small antelope.



False colour image of a human figure.



Tracing of one of only two antelope headed therianthropes in the Groot Winterhoek Mountains.



False colour image of a human figure with a bow.

SITE NUMBER: 11

SITE NAME: Eel Cave

SITE DESCRIPTION: Large shelter of about 65 m in length, 14 m at its deepest but only 2.5 m high. The majority of paintings, which include human figures, animals and handprints occur in the far right of the cave. The shelter has a large painting of a probably snake in red and white (thought to be an eel by earlier visitors)

THREATS TO THE SITE: The site is visited by the public who camp in the shelter. Fire, dust and graffiti are the biggest threats.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☒

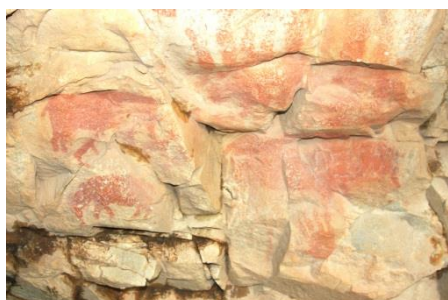
SELECTED IMAGES:



Right-hand side of the shelter where most of the paintings are found.



The large snake is nearly 10 cm in width and can be seen on the right.



Indeterminate animals and handprints.



False colour image of an elephant.



Human figure with a bow.



View from the shelter.

SITE NUMBER: 12

SITE NAME: Pop's Cave

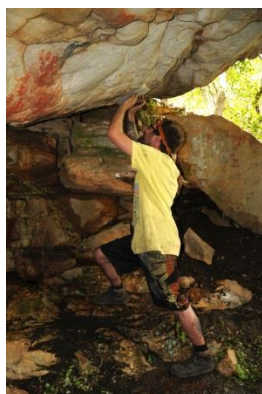
SITE DESCRIPTION: The site is about 17 m in length, 6 m in width and 7 m high. Despite its size there are only around 40 images painted in the site. The shelter has a shallow deposit with the remains of some stone flakes and LSA pottery.

THREATS TO THE SITE: The site is visited and there is evidence of people lighting fires.

RECORDING:

Photographs	☒	Sketches	☒	Tracing	☒	Quantitative analysis	☒
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SELECTED IMAGES:



Tracing in the shelter.



Human figure with a handprint over it.



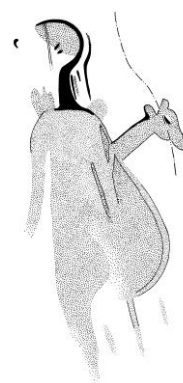
Nested U-shapes.



Figures in bags with hook heads and white faces.



False colour image of the remains of two antelope (probably eland) with a handprint over them.



Tracing of a human figure with an antelope head protruding from a bag.

SITE NUMBER: 13

SITE NAME: Pools Boulder Shelter

SITE DESCRIPTION: This small shelter is made by two huge boulders. It is right on the edge of the river and there is evidence that the river runs through the shelter during flooding. The site contains only 5 painted human figures.

THREATS TO THE SITE: Flooding covers the images.

RECORDING:

Photographs ☒	Sketches ☒	Tracing ☐	Quantitative analysis ☒
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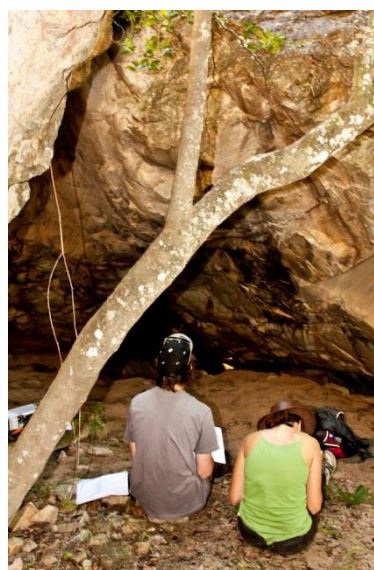
SELECTED IMAGES:



Four black human figures with white details.



Red human figure.



Shelter.

SITE NUMBER: 14

SITE NAME: Tunnel Cave

SITE DESCRIPTION: The overhang is about 15 m in length, 7 m at the widest and 10 m high. There is a low tunnel going deep into the side of the mountain. It has a rocky floor with the remains of some stone artefacts.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☒

SELECTED IMAGES:



Paintings at this site occur both under the overhang and in the more exposed outer areas as well.



Under the overhang where most of the images are found.



Finger dots and rubbed images.



Nested U-shapes with the remains of white dots.



Finger dots and yellow running figures.



False colour images of bichrome figures.

SITE NUMBER: 15

SITE NAME: Hornet Cave

SITE DESCRIPTION: Long narrow overhang of 15 m by 3 m and 4 m high. The shelter has a sandy floor with stone artefacts. This shelter only has red human figures preserved.

THREATS TO THE SITE: Lichen is beginning to cover some of the images.

RECORDING:

Photographs ☒

Sketches ☐

Tracing ☐

Quantitative analysis ☒

SELECTED IMAGES:



Group of five running human figures



Human figures with Lichen growing over it.



Red human figure

SITE NUMBER: 16

SITE NAME: Dying Bantu Shelter

SITE DESCRIPTION: Very low long overhang. It is across the stream from a large shelter with a large sandy floor which has no paintings.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

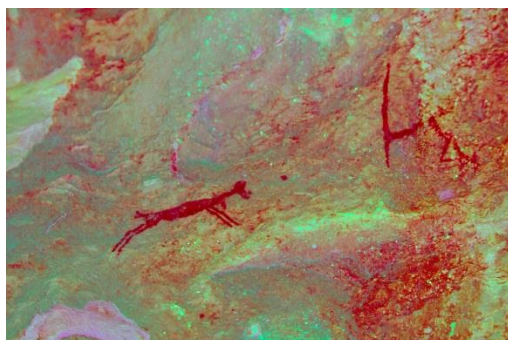
SELECTED IMAGES:



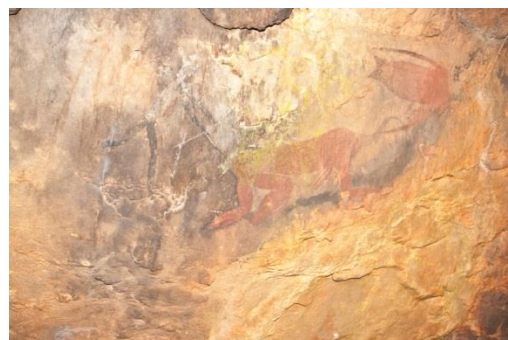
Tracing images on the ceiling of the low shelter.



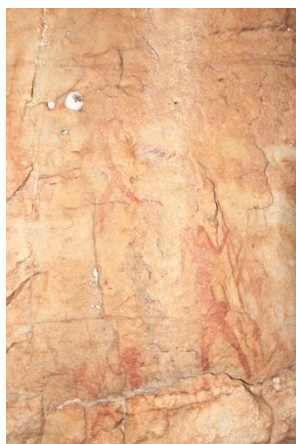
Two swift-tailed therianthropes



False colour image of an antelope and human figure with a bow.



Crouching figure being shot with arrows. A swift-tailed therianthrope is seen above.



Red human figures.



Red kaross clad figure.

SITE NUMBER: 17

SITE NAME: Donnewetter Cave

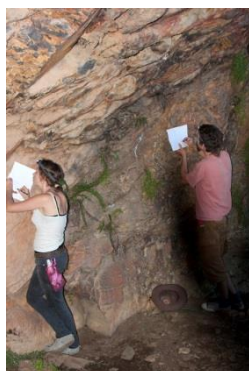
SITE DESCRIPTION: The shelter is about 10 m in length, 4 m in width and 5 m in height. There are about 50 images including human animal figures. There is a small panel of well-preserved images, but most of the images are faded. The shelter has a shallow sandy deposit with stone artefacts and LSA pottery present on the surface.

THREATS TO THE SITE: There is evidence of campers staying in the cave and making fires.

RECORDING:

Photographs	☒	Sketches	☒	Tracing	☒	Quantitative analysis	☒
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SELECTED IMAGES:



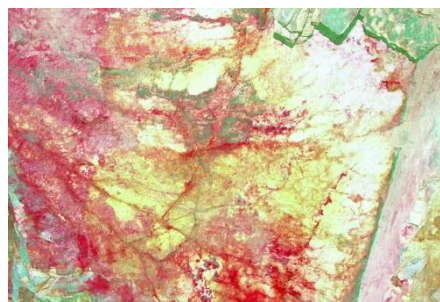
Sketching at the site.



Human figures crouching



Well preserved group of yellow running figures



False colour image of very faded antelope images



Close-up of a figure with a unique headdress



Figure disappearing into a step in the rock

SITE NUMBER: 18

SITE NAME: Cowdung Cave

SITE DESCRIPTION: This shelter is over 30 m in length, 7 m in width and about 6 m in height. It has a flat floor made of fine sand meaning dust is a problem. There are archaeological remains in the form of LSA pottery and stone artefacts. There are over 250 images at the site but for the most part the preservation is poor.

THREATS TO THE SITE: Dust is the biggest problem at this site.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

SELECTED IMAGES:



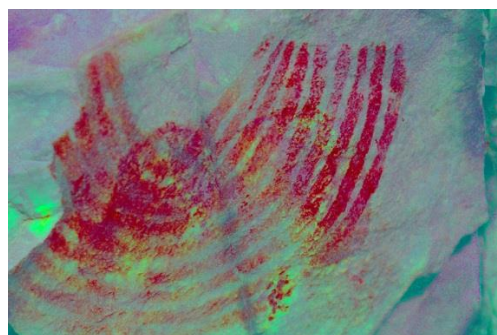
Part of the shelter.



Possible bee hive image.



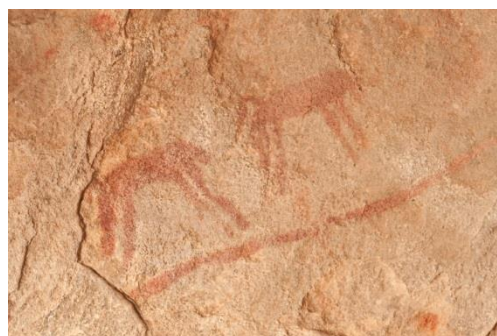
The only recorded outlined image in the Groot Winterhoek Mountains



False colour image of nested U-shapes.



False colour image of an antelope looking back over its shoulder



Two baboons which are part of a group of six.

SITE NUMBER: 19

SITE NAME: Elephant Shelter

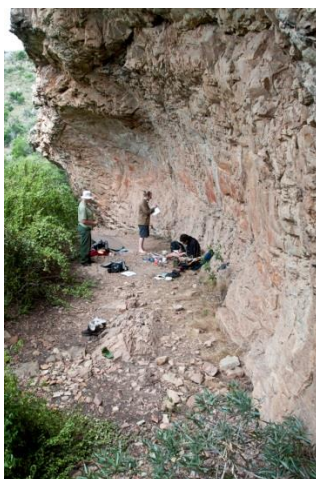
SITE DESCRIPTION: This shelter is about 10 m in length, 3 m in width and 7 m in height. It has over one hundred and fifty images of animals and human figures. It includes a possible image of a snake. The site has some deposit and ostrich eggshell beads and stone artefacts on the surface.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒ Sketches ☒ Tracing ☒ Quantitative analysis ☒

SELECTED IMAGES:



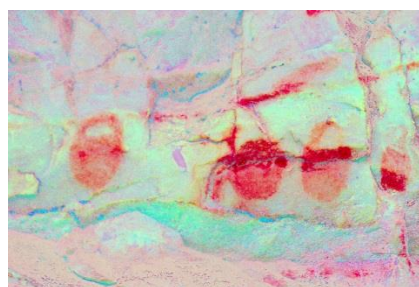
Shelter.



Bird-tailed therianthrope painted over an elephant.



Elephant.



False colour image of bags painted over a possible snake image.



False colour image of an eland.



Hook-headed human figures

SITE NUMBER: 20

SITE NAME: Dassie Dung Cave

SITE DESCRIPTION: The site is approximately 22 m long and 12 m in depth at its deepest. There is a smaller alcove at the back of the shelter which is about 2 m high but the rest of the shelter is 4-5 m in height. It contains over one hundred images most of which are poorly preserved. The sandy floor shows excavation potential with stone artefacts and pottery on the surface.

THREATS TO THE SITE: Dust is a major threat.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

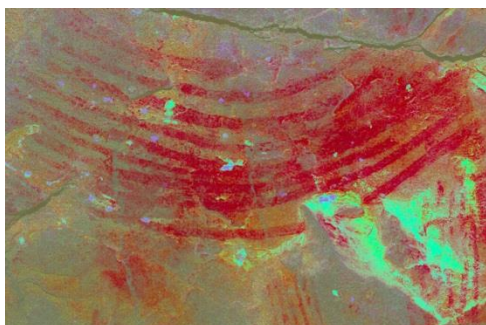
SELECTED IMAGES:



The images occur both in the inner part of the shelter and on the more exposed outer walls.



Unusual case of an elephant painted over what seems to be another elephant image.



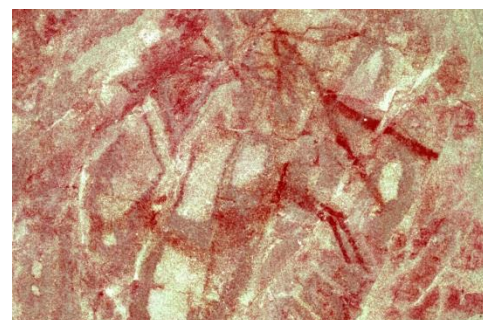
False colour image of nested U-shapes.



. Antelope looking back over its shelter.



Faded remains of images.



False colour image of human and antelope figures.

SITE NUMBER: 21

SITE NAME: Judith's Shelter

SITE DESCRIPTION: This is a small overhang with very little floor space. The overhang is about 5 m in length, less than 1.5 m in width and 3 m in height. It has few images (just over thirty).

THREATS TO THE SITE: Although the site is fairly inaccessible and not marked on any maps it has graffiti. Although the art is exposed, the art is relatively well preserved.

RECORDING:

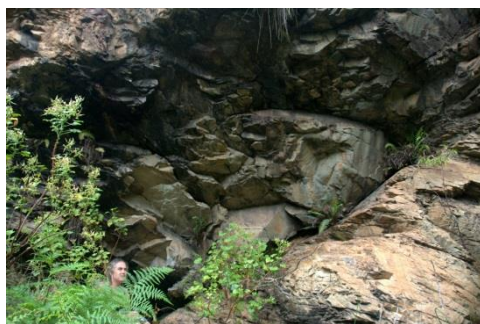
Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☒

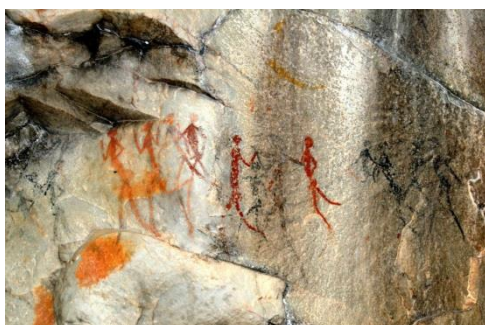
SELECTED IMAGES:



The small overhang.



Antelope and human figures.



Procession of red and black figures.



False colour image of the black figures.



Close-up of one figure from the procession.



The single female figure in the shelter.

SITE NUMBER: 22

SITE NAME: Cave Charles

SITE DESCRIPTION: This a large shelter has a flat sandy and rock floor. It contains over eighty paintings but the preservation is very poor.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

SELECTED IMAGES:



The shelter is under the jutting out rock to the right of the photo.



Small red antelope.



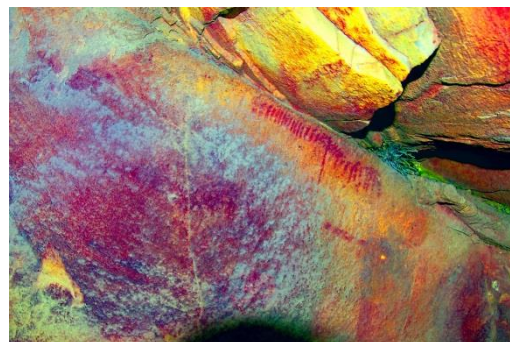
Bichrome eland.



An unusual detailed eland head.



Detailed hooves which is unusual for the Groot Winterhoek Mountains.



False colour image showing red lines under an overhand and the remains of human figures.

SITE NUMBER: 23

SITE NAME: Three Tears Shelter

SITE DESCRIPTION: The overhang slopes quite steeply with a small flat area near the paintings. The overhang is approximately 21 m in length, 6 m in height and 2-3 m in width. Of the thirty-one images in the site, there are only two animal images.

THREATS TO THE SITE: Natural weathering.

RECORDING:

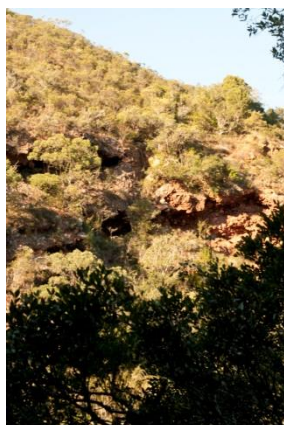
Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☒

SELECTED IMAGES:



The images are found in the lower overhangs.



Complex panel of superimposed human figures.



Close-up of the detailed decoration in the hook-head and antelope eared cap.



Yellow human figures and black indeterminate animal (possible a baboon).



Faded human images.



The only glass bead seen in the Groot Winterhoek Mountains.

SITE NUMBER: 24

SITE NAME: Fig Tree Cave

SITE DESCRIPTION: This large shelter is approximately 25 m in length, 6 m in width and 8 m in height. It is made up of conglomerate rock. It only has one possible painting. What looks like a red geometric but it is very high and it is difficult to see if it is natural or anthropogenic.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☐

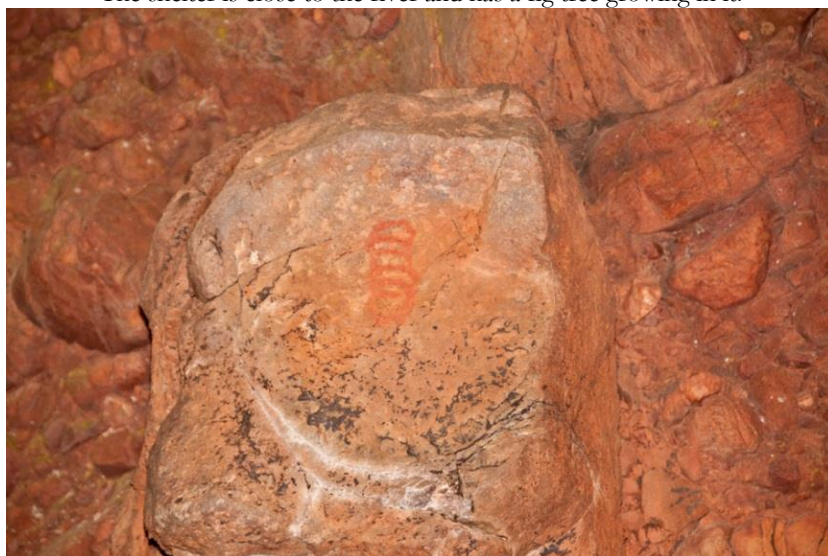
Tracing ☐

Quantitative analysis ☒

SELECTED IMAGES:



The shelter is close to the river and has a fig tree growing in it.



Possible red painting

SITE NUMBER: 25

SITE NAME: Dog and Goat Cave

SITE DESCRIPTION: This large shelter is 28 m in length, 15 m in width and 8-10 m in height. The shelter is densely painted with over three hundred images including human figures, animals and handprints. The shelter has a deep deposit in places with quartzite flakes and LSA pottery on the surface.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒ Sketches ☒ Tracing ☐ Quantitative analysis ☒

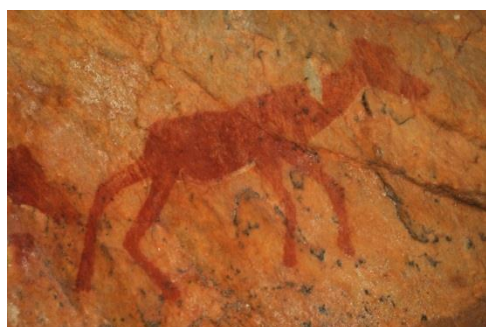
SELECTED IMAGES:



The shelter.



A figure stepping out from behind a step in the rock



The image that was thought to be a goat giving the shelter its name. It does not have enough features to be positively identified.



Human figures including one which seems to be holding a basket of fish trap.



Seated figures and bags



Figures with bags and digging sticks

SITE NUMBER: 26

SITE NAME: Baby Foot Cave

SITE DESCRIPTION: Large shelter about 40 m in length, 15 m in width and 10 m in height. The site has nearly 200 images including a large circular dance with at least 70 figures, hand prints and one small foot print. Although the site has archaeological deposit with LSA pottery and stone artefacts on the surface, there is evidence of many visitors and it is highly disturbed.

THREATS TO THE SITE: Site visitors and evidence of fires.

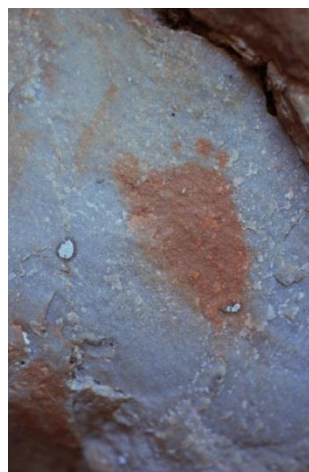
RECORDING:

Photographs	☒	Sketches	☒	Tracing	☐	Quantitative analysis	☒
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SELECTED IMAGES:



View from inside the shelter.



Baby foot print after which the shelter is named.



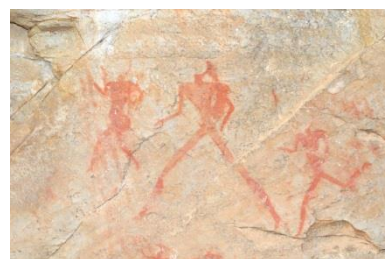
Larger circular dance with over seventy figures.



Close-up of circular dance



Human figures with handprints



Human figures. The central figure is painted in a twisted perspective with an unusual headdress.

SITE NUMBER: 27

SITE NAME: WN2

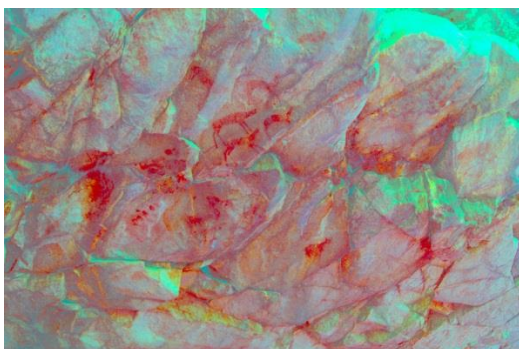
SITE DESCRIPTION: This small shelter is found near Baby Foot Cave. It is approximately 6 m in length, 3 m in width and 2 m in height. There are only 9 images in the shelter. No archaeological artefacts are found in the shelter. Preservation is poor.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒ Sketches ☐ Tracing ☐ Quantitative analysis ☒

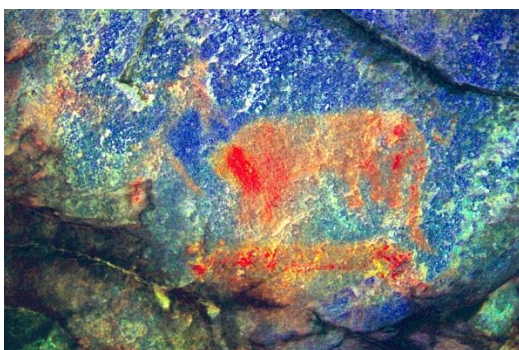
SELECTED IMAGES:



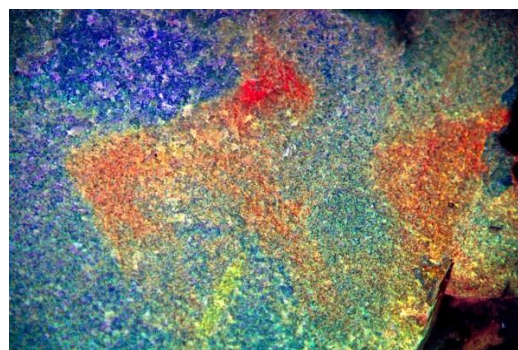
False colour image of some of the images at the site.



False colour of antelope. These antelope probably had white heads but the pigment has now disappeared.



False colour image of an elephant and human figure.



False colour image of an antelope.

SITE NUMBER: 28

SITE NAME: McAll's Cave

SITE DESCRIPTION: This site is the only site to have been traced in its entirety (see Laue 2017). The site has over 220 images and includes some of the best preserved rock art in the Groot Winterhoek Mountains. The shelter has a shallow deposit with little excavation potential.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs	☒	Sketches	☒	Tracing	☒	Quantitative analysis	☒
-------------	-------------------------------------	----------	-------------------------------------	---------	-------------------------------------	-----------------------	-------------------------------------

SELECTED IMAGES:



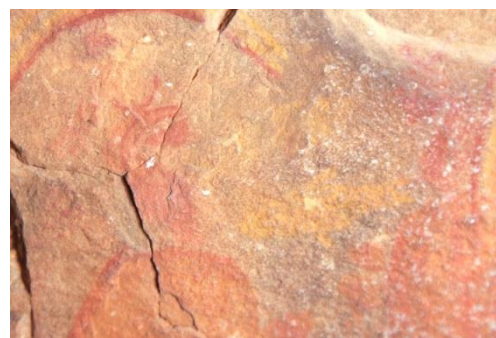
View of the right-hand side of the shelter.



Part of the procession that if found in the the shelter.



Antelope painted over each other.



Fish swimming between two seated figures.

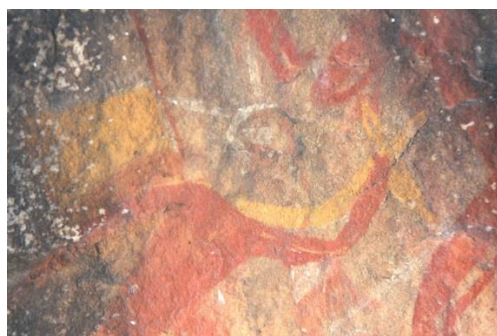


Figure with antelope eared cap and antelope head extending from the neck.



Tracing of crawling figures on the ceiling of the shelter.

SITE NUMBER: 29

SITE NAME: Percy's Cave

SITE DESCRIPTION: This site is approximately 16 m in length, 5 m in width and 5 m in height. This densely painted site unfortunately suffered severe damage during a veld fire in 2013. The fire caused blackening of the shelter walls and spalling.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☐

SELECTED IMAGES:



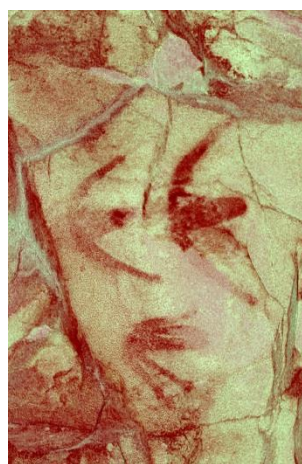
Sketching at the shelter.



Part of the densely painted site.



After the fire. Showing the blackened shelter with spalling.



False colour images of bird figures flying towards a step in the rock.



False colour image of three baboons with their characteristic bent tail.



Trance dance image with eleven clapping figures on the left.

SITE NUMBER: 30

SITE NAME: Groenewalt's Watch

SITE DESCRIPTION: This small site is about 5 m in length, 3 m in width and 6 m in height. It contains only 4 paintings on conglomerate rock. The floor of the shelter is sloping and rocky.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☒

Quantitative analysis ☐

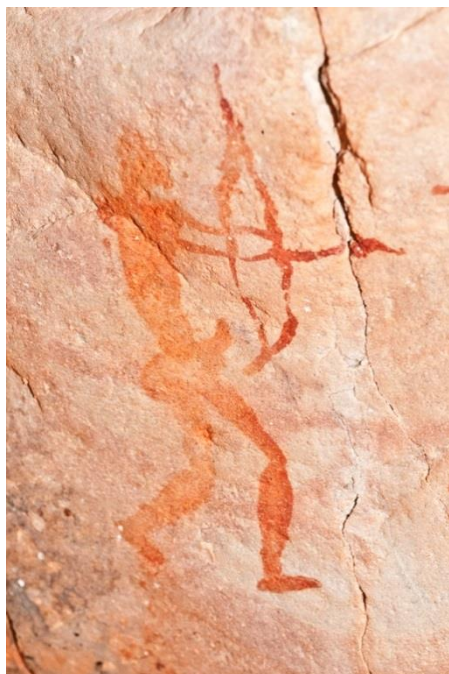
SELECTED IMAGES:



View from the shelter.



The only paintings found in the shelter.



Close-up of human figure with bow.



Animal figure standing in hindlegs.

SITE NUMBER: 31

SITE NAME: GNR 9

SITE DESCRIPTION: This small overhang has three black stripes in it. At first glance they look like charcoal graffiti, but at closer inspection they look painted.

There are no representative images in the site.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☐

Tracing ☐

Quantitative analysis ☐

SELECTED IMAGES:



Three black stripes are the only images in the site.

SITE NUMBER: 32

SITE NAME: Overhang Blinderkloof

SITE DESCRIPTION: This overhang is right in the river bed. There is no deposit, but there could have been at some time as some of the paintings are about 3 m in up.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☐

SELECTED IMAGES:



View from the overhang.



Human figure with evidence of touching or rubbing.



Most densely painted area of the site.



Detail of the black images.



Possible bag painting.



Figures that are over 3 m up the rock face.

SITE NUMBER: 33

SITE NAME: Leopard Cave

SITE DESCRIPTION: This small overhang is close to the river. Preservation is very poor and the remains of handprints and human figures can be seen.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☐

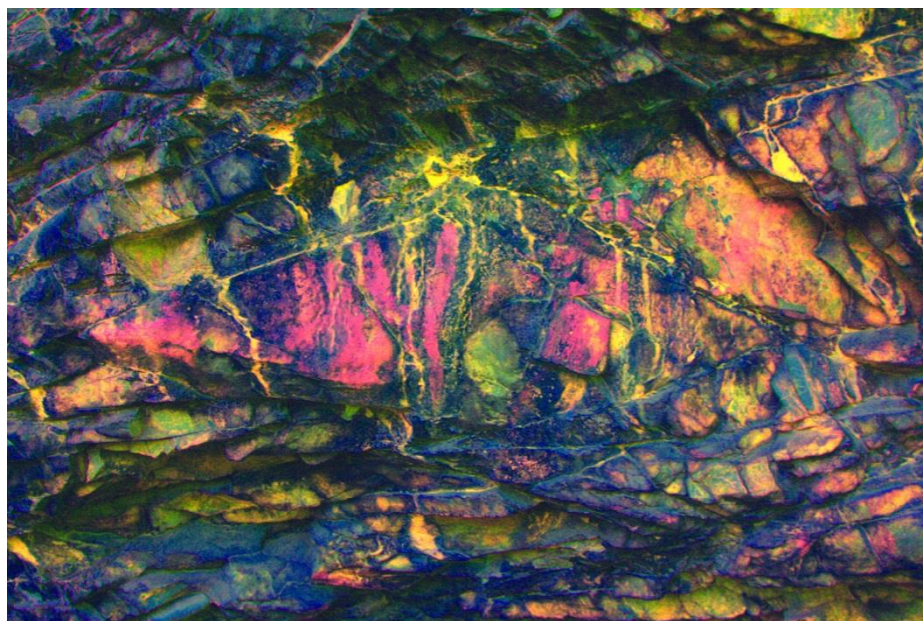
Tracing ☐

Quantitative analysis ☐

SELECTED IMAGES:



Poorly preserved paint remains.



False colour image.

SITE NUMBER: 34

SITE NAME: Rocking Stone Cave and Falls

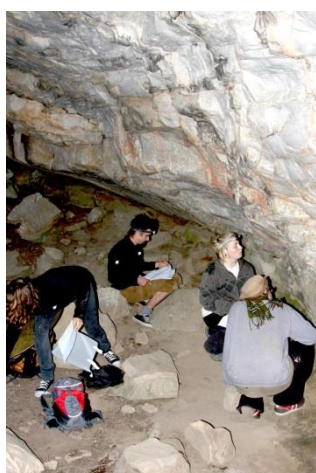
SITE DESCRIPTION: This long dark shelter has few paintings in varying states of preservation. The polychrome running figures with tri-sectioned arrows are some of the most detailed seen in the Groot Winterhoek Mountains.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs	☒	Sketches	☒	Tracing	☒	Quantitative analysis	☐
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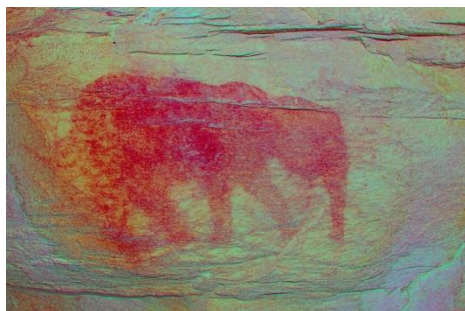
SELECTED IMAGES:



Sketching images in the shelter.



Black figure with red equipment.



False colour image of an elephant



Group of three detailed polychrome human figures



Figure with antelope eared cap holding a bow and arrows.



False colour image showing the remains of a human figure and an arrow.

SITE NUMBER: 35

SITE NAME: Gallery Cave

SITE DESCRIPTION: This long shelter is situated under a cliff

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☐

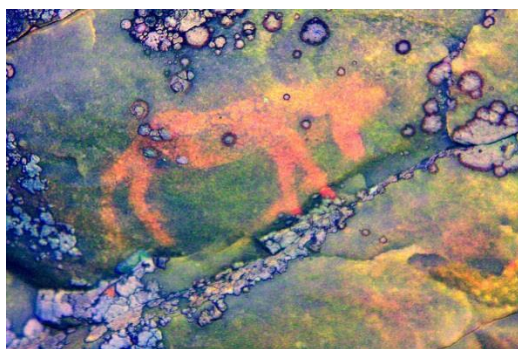
SELECTED IMAGES:



View across the shelter.



Black figure surrounded by possible insects.



False colour image of an antelope.



False colour image of a large hook-head.

SITE NUMBER: 36

SITE NAME: GNR 19

SITE DESCRIPTION: The few images at this site are found on the far left hand side of a large overhang. The images are placed near a 30 cm crack in the rock face.

THREATS TO THE SITE: Natural weathering.

RECORDING:

Photographs ☒

Sketches ☒

Tracing ☐

Quantitative analysis ☐

SELECTED IMAGES:



Painted circle enclosing at least four human figures

SITE NUMBER: 37

SITE NAME: GNR 17

SITE DESCRIPTION: This tiny overhang is very exposed and contains three red human figures.

THREATS TO THE SITE: Natural weathering.

RECORDING:

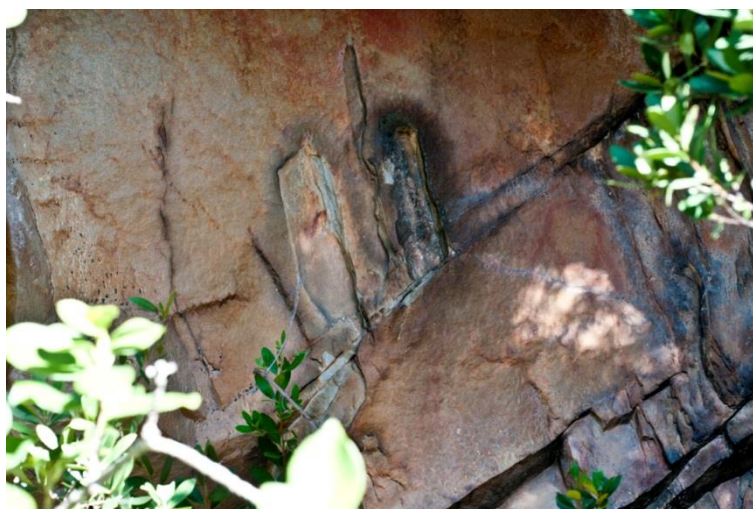
Photographs ☒

Sketches ☐

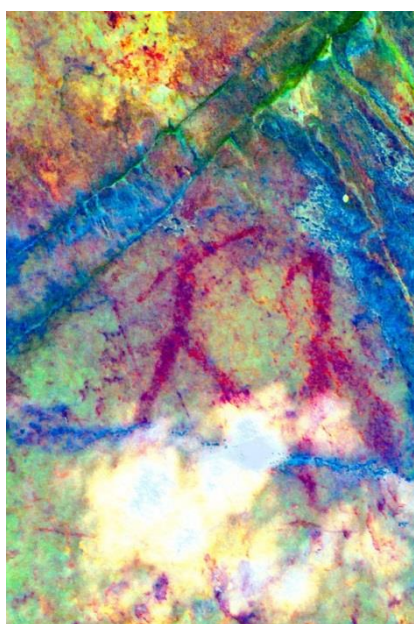
Tracing ☐

Quantitative analysis ☐

SELECTED IMAGES:



The painted surface.



False colour image of two human figures.



False colour image of the third human figure at the site.

APPENDIX B**ROCK ART RESEARCH INSTITUTE *"FIRST VISIT"* SITE
INFORMATION FORM**

Rock Art Research Institute

“First Visit” Site Information Form

Date visited: _____ Person/s recording: _____

Site name: (Farm/Village/Hill name + site number; e.g. Nachikufu 1):

Alternative site names: (other local names)

Map name and number: _____

GPS Coords: S: _____

E: _____

Make of GPS: _____ Datum: _____ Accuracy: _____

Country:	Province/Region:
District:	

Art Tradition: _____

Art Description: _____

Contact Name _____

Telephone/email: _____

Address: _____

Directions to site:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Sketch map:

APPENDIX C**ROCK ART SITE RECORD SHEET FOR THE GROOT WINTERHOEK
MOUNTAINS**

ROCK ART SITE RECORD SHEET



Site Number:
 Date Visited:
 Field Recorders:
 Photograph info and numbers:.....

LOCATION

Country/Province/District:
 Site Name: Alternative names:
 Map No. Coordinates S: E:
 Elev:
 Contact details:

Brief directions and land marks: Sketch Map:

SITE DESCRIPTION

Type: Shelter ☐ Overhang ☐ Cliff face ☐ Boulder ☐
 Other:.....

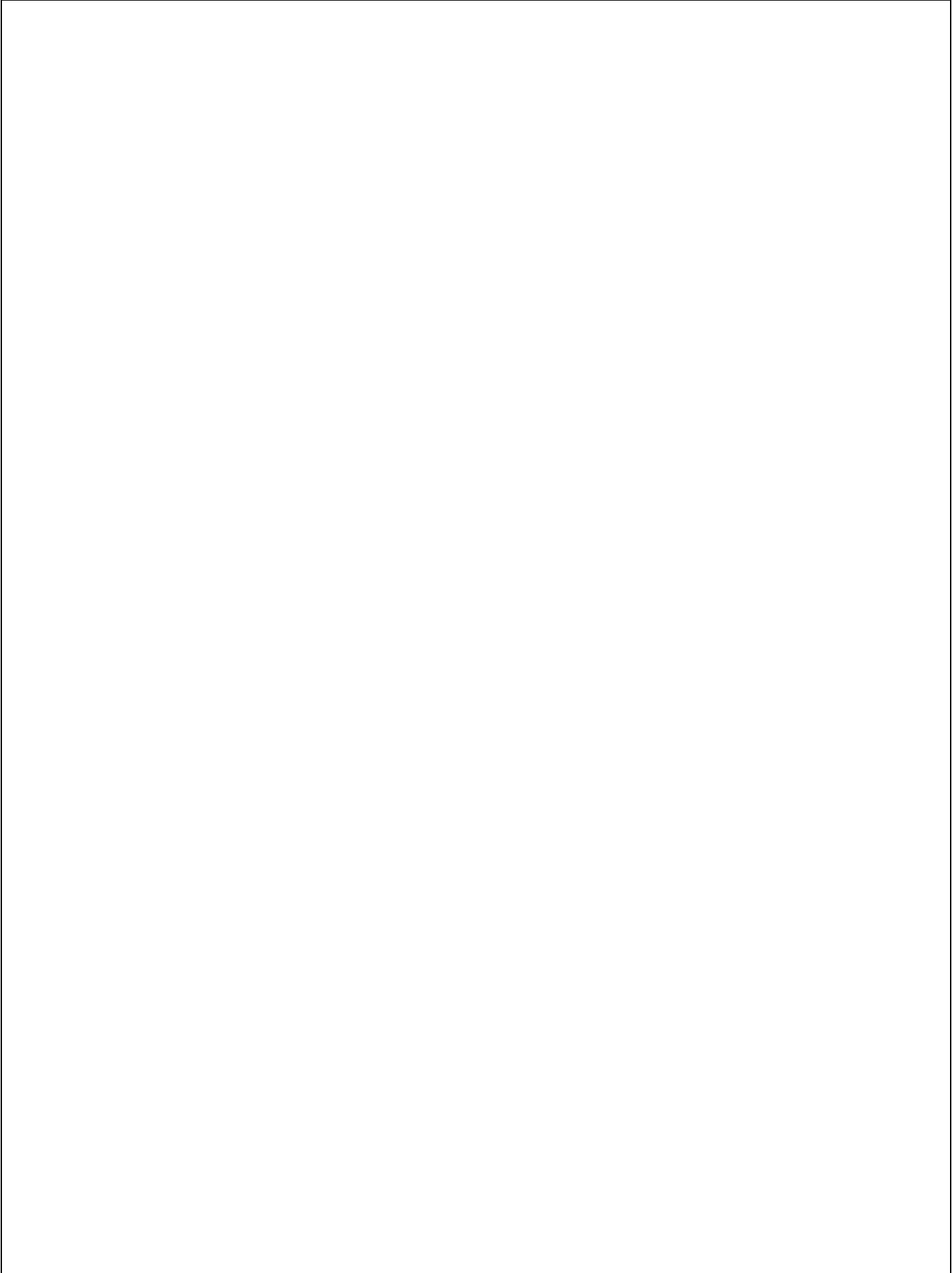
Brief description (noting features such as tunnels and caves).....

Approximate Dimensions: Length Width Height Aspect:
 Art Tradition: San ☐ Bantu ☐ Khoekhoen ☐ Other:

.....
 Approx. no. of images:
 Preservation:.....
 Rock Type: Threats to site:
 Other Archaeological material/features:.....
 Excavation potential:

GENERAL DESCRIPTION, COMMENTS AND NOTES

Sketches:



DETAILS FOR REGIONAL COMPARISON

Presence/ Absence checklist:

Eland ☐	Flying buck ☐	Formlings ☐
Hartebeest ☐	Swift –tailed figures ☐	Nets/grids ☐
Rhebok ☐	Antelope therianthropes ☐	Rainbows/arches ☐
Other Antelope ☐	Eared caps ☐	Nested U-shapes: fine ☐ finger ☐
Felines ☐	Trance dance depiction ☐	Finger dots: clouds ☐ lines ☐ rows ☐
Giraffe ☐	Procession ☐	Hand prints ☐ decorated ☐
Zebra ☐	Buck in a bag ☐	Finger painted geometrics ☐
Elephant ☐	Hook-heads ☐	Bags not on human: round ☐ hunting ☐
Baboon ☐	Bleeding from the nose ☐	Cloaks ☐
Fish ☐	Arms back posture ☐	Kaross ☐
Bird ☐	Hand to nose posture ☐	Spoor ☐
Snake ☐ antelope headed ☐	Armpit emanations ☐	Plants/trees ☐
Fat-tailed sheep ☐	Knee emanations ☐	Flywhisks ☐
Cattle ☐	Infibulation ☐	‘Thin red line’ ☐
Rain animal ☐	Gender: breasts ☐ penis ☐	Shaded polychrome ☐
Dying animal (upside down) ☐	Wounded figure ☐	Superspositioning ☐
..... ☐	Body decoration ☐	Smudging or rubbing of painting ☐
..... ☐	Bending forward posture ☐	Painting on pigmented surface ☐
..... ☐	 ☐	 ☐

Animals (grouped by species and similar colours/characteristics):

No.	Species	Colours + description	Technique	Orientation /position	Size	Special features such as hoof or facial detail

Comments on groupings, painting episodes, superpositioning, smudging of paintings or rubbing of the rock surface with pigment, use of the rock face etc.

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Style (Ask the following questions of the animal images: How are the animal figures painted? Side on? Front on? Movement? Stylised? Naturalistic? Details of horns/hooves? Details of facial features?)

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Animals (grouped by species and similar colours/characteristics):

No.	Species	Colours + description	Technique	Orientation /position	Size	Special features such as hoof or facial detail

Therianthropes (grouped by similar colours/characteristics):

No	Sex	Animal part	Colours + description	Technique	Orientation/position	Head type	Size	Equip	Body features	Body decor	Head gear

Comments on groupings, painting episodes, superpositioning, smudging of paintings or rubbing of the rock surface with pigment, use of the rock face etc.

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Style (Ask the following questions of the therianthrope images: How are they painted? Side on? Front on? Movement? Supposed activity? Stylised? Naturalistic? Details of body decoration? Details of clothing? Details of equipment? Details of headgear? Details of facial features? Details of animal features?)

.....

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.....

Geometrics, abstracts, handprints, equipment and images not already discussed (grouped by similar colours/ characteristics):

No.	Colours + description	Technique	Orientation/position	Fine/finger painted	Size	Special features comments

Comments on groupings, painting episodes, superpositioning, smudging of paintings or rubbing of the rock surface with pigment, use of the rock face etc.

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Style (Ask the following questions of the images: How are they painted? Stylised? Naturalistic? Details of decoration? Decorated handprints?)

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Therianthropes (grouped by similar colours/characteristics):

Geometrics, abstracts, handprints, equipment and images not already discussed (grouped by similar colours/ characteristics):

No.	Colours + description	Technique	Orientation/position	Fine/finger painted	Size	Special features comments

APPENDIX D

Quantitative analysis of human and anthropomorphic figures from 28 sites in the Groot Winterhoek Mountains

Site number	Number of figures	Male	Female	Indeterminate	Therianthrope	Mono-chrome	Bi-chrome	Poly-chrome	Red	Dark red	Light red/orange	Brown	Yellow	White	Black
1	50	15	0	35	0	47	3	0	44	2	0	0	6	0	1
2	2	1	0	1	0	2	0	0	0	0	0	0	0	0	2
3	5	3	0	2	0	4	1	0	5	0	0	0	0	1	0
4	81	5	3	72	1	70	8	3	70	2	0	0	8	11	4
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	8	0	0	8	0	7	1	0	8	0	0	0	1	0	0
7	7	3	0	4	0	6	1	0	4	0	3	0	0	1	0
8	17	0	0	17	0	15	2	0	16	0	0	0	2	1	0
9	95	3	0	90	2	83	4	8	72	2	0	0	21	10	9
10	23	0	0	22	1	14	9	0	17	0	0	0	15	0	0
11	11	0	0	11	0	11	0	0	9	2	0	0	0	0	0
12	19	0	0	19	0	5	13	1	17	0	0	0	1	13	3
13	5	3	0	2	0	3	2	0	1	0	0	0	0	2	4
14	59	21	0	38	0	52	6	1	52	0	0	0	8	0	7
15	9	5	0	4	0	9	0	0	9	0	0	0	0	0	0
16	31	1	0	25	5	22	6	3	23	0	0	0	0	3	15
17	26	7	0	19	0	13	5	8	19	0	0	0	14	14	0
18	99	12	0	87	0	95	4	0	80	4	0	0	4	3	12
19	45	4	0	40	1	45	0	0	42	0	0	0	3	0	0
20	59	1	0	58	2	58	1	0	48	10	0	0	1	0	1
21	29	12	1	16	0	28	1	0	15	2	0	0	1	0	12
22	24	6	0	18	0	20	2	2	20	0	0	0	1	4	5
23	29	2	0	27	0	26	2	1	7	1	0	1	7	1	16
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	171	5	0	166	0	166	4	1	150	5	0	1	17	1	3
26	140	4	4	132	0	140	0	0	140	0	0	0	0	0	0
27	2	0	0	0	0	2	0	0	2	0	0	0	0	0	0
28	155	1	1	153	0	64	56	35	145	0	0	0	72	34	7
Total	1201	114	9	1066	12	1007	131	63	1015	30	3	2	182	99	101

APPENDIX E

Quantitative analysis of animal figures from 28 sites in the Groot Winterhoek Mountains

Site number	Number of figures	Indeterminate animal	Total Antelope	Eland	Hartebeest	Buffalo	Rhebok	Lizard	Fish	Baboon	Elephant	Bird	Snake	Monochrome	Bichrome	Polychrome	Red	Dark red	Light red/orange	Yellow	White	Black
1	21	7	10	0	0	0	0	0	0	0	4	0	0	21	0	0	15	0	0	6	0	0
2	3	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	2	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	90	5	65	16	0	0	6	0	0	0	1	19	0	54	36	0	86	0	0	3	37	0
5	6	0	6	0	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0
6	2	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	14	4	9	1	0	0	0	0	0	0	0	1	0	12	2	0	13	0	0	1	2	0
9	31	9	20	2	0	0	0	1	1	0	0	0	0	27	4	0	22	0	0	9	3	1
10	6	1	5	0	0	0	2	0	0	0	0	0	0	6	0	0	5	0	0	1	0	0
11	7	4	1	1	0	0	0	0	0	0	1	0	1	5	2	0	7	0	0	0	2	0
12	8	2	6	0	0	0	0	0	0	0	0	0	0	3	5	0	2	5	1	0	2	3
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	7	1	5	1	0	1	0	0	0	0	0	0	0	4	1	2	3	1	0	1	3	4
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	4	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	3	0	0	1	0	0
17	8	4	4	0	0	0	0	0	0	0	0	0	0	7	1	0	5	1	0	2	1	0
18	27	6	7	0	0	0	0	0	0	14	0	0	0	25	2	0	25	0	0	2	1	1
19	21	7	8	7	0	0	0	0	0	5	1	0	0	14	7	0	20	0	0	0	8	0
20	29	13	15	1	0	0	5	0	0	0	1	0	0	28	1	0	21	2	0	6	0	1
21	2	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0
22	10	4	6	0	0	0	0	0	0	0	0	0	0	5	5	0	3	0	1	0	5	6
23	2	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	1
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	28	3	25	0	0	0	0	0	0	0	0	0	0	26	2	0	22	0	1	4	2	0
26	3	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0
27	7	4	2	0	0	0	0	0	0	0	1	0	0	7	0	0	7	0	0	0	0	0
28	26	3	19	0	2	0	3	0	4	0	0	0	0	11	13	2	20	0	1	9	3	9
Total	362	84	222	29	2	1	22	1	5	19	9	20	1	277	81	4	293	10	4	47	69	26

APPENDIX F

Quantitative analysis of inanimate objects from 28 sites in the Groot Winterhoek Mountains

Site number	Number of objects	Monochrome	Bichrome	Polychrome	Red	Dark red	Light red/ orange	Yellow	Brown	White	Black
1	11	11	0	0	11	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	1	1	0	0	1	0	0	0	0	0	0
4	66	65	1	0	44	0	0	0	0	23	0
5	0	0	0	0	0	0	0	0	0	0	0
6	3	3	0	0	3	0	0	0	0	0	0
7	1	1	0	0	1	0	0	0	0	0	0
8	1	1	0	0	1	0	0	0	0	0	0
9	139	134	3	2	111	0	0	9	0	25	1
10	3	3	0	0	2	0	0	1	0	0	0
11	2	2	0	0	2	0	0	0	0	0	0
12	2	1	1	0	1	0	1	0	0	0	1
13	0	0	0	0	0	0	0	0	0	0	0
14	1	0	0	1	1	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	0	0
16	9	8	1	0	8	0	0	1	0	0	1
17	5	5	0	0	2	0	0	0	0	3	0
18	66	54	12	0	39	7	0	0	0	13	33
19	24	22	2	0	24	0	0	1	0	1	0
20	14	14	0	0	14	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	48	46	1	1	44	0	2	1	1	3	1
23	0	0	0	0	0	0	0	0	0	0	0
24	1	1	0	0	1	0	0	0	0	0	0
25	65	59	6	0	38	0	0	24	3	5	1
26	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0
28	35	28	5	2	22	0	0	6	0	3	13
Total	497	458	32	6	370	7	3	43	4	77	52

APPENDIX G

Quantitative analysis of handprints, finger dots and finger smears from 28 sites in the Groot Winterhoek Mountains

Site number	Handprints	Decorated handprints	Finger dots / smears	Dark red	Red	Light red/ orange	Yellow	White	Black
1	31	11	71	4	56	0	0	0	42
2	3	0	5	0	8	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	94	3	11	14	73	0	18	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	96	0	1	0	95	0	2	0	0
9	33	17	3	0	36	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	46	0	11	0	57	0	0	0	0
12	11	0	2	0	11	1	0	0	1
13	0	0	0	0	0	0	0	0	0
14	0	0	25	0	14	0	11	0	0
15	0	0	0	0	0		0	0	0
16	0	0	0	0	0	0	0	0	0
17	15	0	0	0	15	0	0	0	0
18	18	3	57	0	72	0	0	0	3
19	37	0	8	0	41	0	0	4	0
20	1	0	22	0	3	0	0	0	20
21	1	0	0	0	1	0	0	0	0
22	2	0	3	1	3	1	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	34	0	17	1	50	0	0	0	0
26	43	0	0	0	43	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	1	0	0	0	0	0	1	0	0
Total	466	34	236	20	578	2	32	4	66