

## **Unsettled times: shaded polychrome paintings and hunter-gatherer history in the southeastern mountains of southern Africa**

**Aron D. Mazel**

International Centre for Cultural and Heritage Studies, Newcastle University,  
United Kingdom; a.d.mazel@ncl.ac.uk

### ABSTRACT

New information generated during the last two decades has allowed us to review previous conclusions that the shaded polychrome paintings of the southeastern mountains were done during the last few hundred years. This new data derives from the relative and absolute dating of rock art in KwaZulu-Natal and the excavation of rock shelters. It is supported by an assessment of the earlier rock art sequencing work done by Pager and Vinnicombe. Drawing together these different strands of evidence, it is proposed that shaded polychromes emerged in the southeastern mountains around 2000 years ago and, with few exceptions, lasted until 1600 years ago in the northern KwaZulu-Natal Drakensberg. The terminal date for shaded polychrome paintings elsewhere in the southeastern mountains is not known and requires additional research. It is submitted that these paintings relate to a phase of hunter-gatherer history which was characterised by increased stress and ritual activity associated with substantial social and cultural changes that resulted from the movement of agriculturist communities into southern Africa.

KEY WORDS: Drakensberg, hunter-gatherers, farmers, rock art, shaded polychrome, eland.

The shaded polychrome paintings of the Maloti-Drakensberg range in southeastern southern Africa have long been considered to represent the high point in the San hunter-gatherer artistic tradition (Figs 1 & 2). Already in the 1930s, Mason (1933: 155) referred to “beautiful polychromes” and fifty years later Campbell (1987: 130) commented that the shaded polychrome antelope paintings, along with associated imagery, “are unrivalled in southern Africa, and, indeed, elsewhere”. Many commentators have highlighted that the eland, the most celebrated of all animals in San hunter-gatherer art, were “lavished [with the] most care. More paintings of eland are done in the complex and time-consuming polychrome technique than of any other animal” (Lewis-Williams & Dowson 2000: 120).

According to Pager (1973), about half of the 147 sites that he recorded in the Cathedral Peak and Cathkin Park areas in the northern KwaZulu-Natal (KZN) Drakensberg contained shaded paintings. The majority of these (68 % of the 523 recorded specimens) were shaded in one or two basic colours, while the rest (i.e. 32 %) were shaded in three or four basic colours (Pager 1973). My own (1982) analysis of the distribution of painted themes in the Drakensberg suggests that other regions of the KZN Drakensberg contain proportionately fewer shaded polychrome (and associated paintings) than Cathedral Peak and Cathkin Park, which stand out as being special with regard to these types of paintings.

Despite the abundance of shaded polychromes (especially of eland) in the KZN Drakensberg and the widespread acknowledgement of their splendour and extraordinary beauty, the position of these paintings in the archaeological record has not been adequately explored. Reflecting on their chronology, Vinnicombe (1976: 143) suggested that the “Ages of approximately 200–300 years for shaded polychrome eland support the view that the technique of intentionally shading two or more colours was adopted in the



Fig. 1. Eland Cave: shaded polychrome eland.

central mountain region during the 18th century”. A decade later, Campbell (1987: 131), drawing on the work of Willcox, Pager, Lewis-Williams and Vinnicombe, argued that the “general consensus” is that shaded polychromes “belong to the contact period”, that is, the nineteenth century.

New work during the last two decades has, however, allowed us to review Vinnicombe’s and Campbell’s conclusions. This includes the relative and absolute



Fig. 2. Botha’s Shelter: two shaded polychrome eland, one of which is foreshortened. Scale in cm.

dating of KZN Drakensberg rock art by Mazel and Watchman (1997, 2003), Russell (1997, 2000) and Swart (2004), as well as the excavation of five rock shelters since the late 1970s (Maggs & Ward 1980; Mazel 1984, 1990, 1992a). An assessment of the earlier rock art sequencing work done by Pager (1971, 1973) and Vinnicombe (1976) complements the new data. Drawing together these different strands of evidence, I propose that shaded polychrome paintings are considerably older than previously thought and, with possibly few exceptions, are between ca. 2000 and 1600 years old in the central and northern KZN Drakensberg, and of a similar age elsewhere in the southeastern mountains. This new understanding of their chronology encourages us to reconsider the role of the shaded polychrome paintings in the historical trajectory of the hunter-gatherers in these areas.

In light of the above, my aims in this paper are: (i) to provide an overview of hunter-gatherer occupation of the KZN Drakensberg, with emphasis on the northern region; (ii) to review the dating of the shaded polychrome paintings in the KZN Drakensberg; (iii) to consider the relationship between these paintings and the dramatic changes taking place in the peopling of southeastern Africa around 2000 years ago; and (iv) to offer some preliminary thoughts regarding their emergence in the southeastern mountains of southern Africa as the basis of further research.<sup>1</sup>

At the outset it is necessary to clarify the geographical parameters of the paper. My initial focus will be on the KZN Drakensberg. I emphasize its northern and central areas, where most archaeological research has been conducted. I nevertheless recognize that shaded polychromes occur over large parts of southeastern southern Africa (Pager 1973; Fig. 3), including the mountainous regions of Lesotho and the northern Eastern Cape Drakensberg. It is, therefore, necessary that the interpretation proposed for this phenomenon treats the primary geographical distribution of the shaded polychromes across the southeastern mountains of southern Africa.

#### HUNTER-GATHERER OCCUPATION OF THE KZN DRAKENSBERG: EVIDENCE FROM ROCK ART AND EXCAVATIONS

Six rock shelter excavations in and adjacent to the KZN Drakensberg have produced 20 radiocarbon dates for the last 3000 years (Table 1). All except for two of these sites are in the northern KZN Drakensberg. Collingham Shelter (Mazel 1992a) lies on the boundary of the northern and southern KZN Drakensberg.<sup>2</sup> From Good Hope 1 in the south, we learn that Later Stone Age hunter-gatherers first occupied the KZN Drakensberg around 8000 years ago. Thereafter, our knowledge about hunter-gatherer inhabitation of the mountains derives almost exclusively from the north, where hunter-gatherers appear to have first settled around 5000 years ago (Mazel 1984, 1989, 1990, 1992a). This occupation appears to have been ephemeral until 3000 years ago when a more intensive hunter-gatherer occupation was initiated, as indicated by the increasing number of lived-in rock shelters, and the increasing quantities and variety of food and cultural remains recovered from excavations (Maggs & Ward 1980; Mazel 1984, 1989, 1990, 1992a), and the production of rock art (Mazel & Watchman 2003). I have argued that this intensification process was linked to internally driven forces of change, including tension surrounding gender relations (Mazel 1989, 1992b).

The dated excavated deposits and the rock paintings indicate that hunter-gatherer settlement in the northern KZN Drakensberg was curtailed around 1600 years, although it

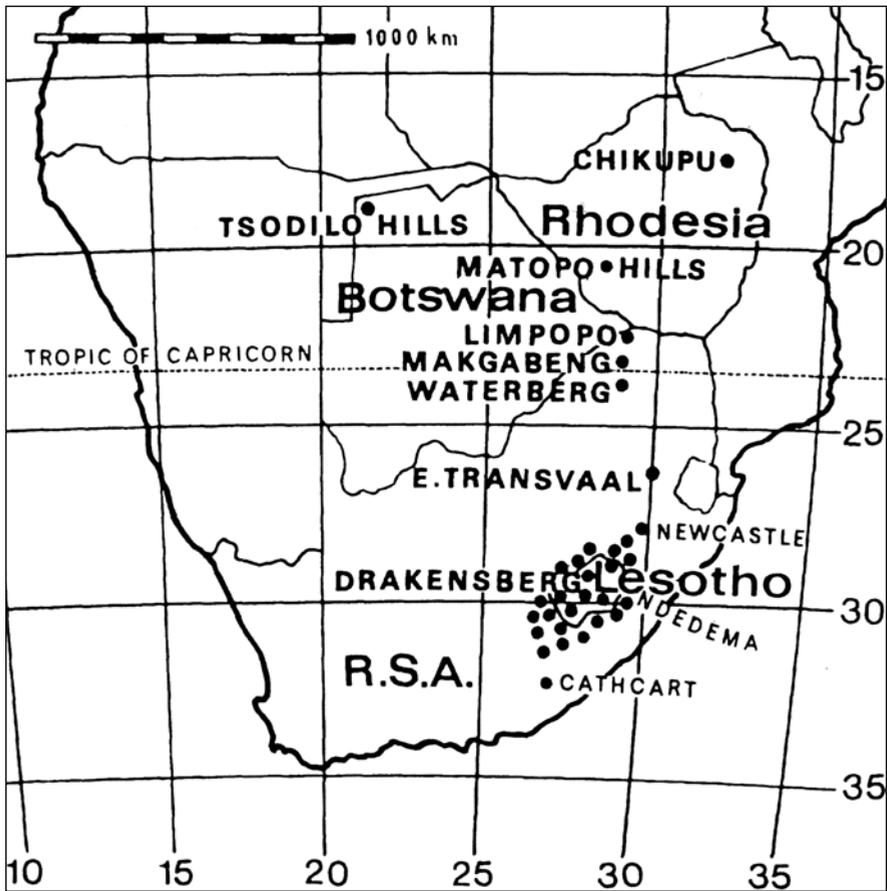


Fig. 3. The distribution of shaded polychrome paintings in southern Africa (Pager 1973).

is possible that groups may have made occasional forays into the mountains as reflected by the ephemeral occupation at Collingham Shelter (Mazel 1992a). This break in occupation coincides with the arrival of the agriculturist communities in the central Thukela basin, and I suspect the two phenomena are related (Mazel 1989, 1998; Mazel & Watchman 2003). Further, I have suggested elsewhere that the hunter-gatherer re-occupation of the northern KZN Drakensberg around 600 years ago was associated with the expansion of agriculturists into areas adjacent to the mountains at roughly the same time (Mazel 1989, 1998). Hunter-gatherer settlement ostensibly came to an end in the latter half of the nineteenth century, although it has been recently submitted that descendant groups have been living adjacent to the mountains up until the present (Ndlovu 2005; Prins 2000, 2009).

#### DATING THE SHADED POLYCHROMES

Establishing the age of the shaded polychrome paintings is a critical aspect of this paper and requires careful marshalling of the available data. We are fortunate that the KZN Drakensberg provides a wealth of complementary data sets with which to address this issue. I discuss that evidence in this section.

*Sequencing the paintings*

Assessment of the available sequencing information shows:

1. that the shaded polychrome paintings occur, with few exceptions, in the middle of the painting sequence;
2. that their appearance was accompanied by other innovations in the art, including the introduction of new subject matter;
3. that these paintings disappeared suddenly; and,
4. that there are marked differences between the layers which contain shaded polychrome paintings and the overlying layers where they are absent.

Supporting information for the sequencing derives primarily from the work of Pager (1971), Vinnicombe (1976), Russell (1997, 2000) and Swart (2004). Additional support for aspects of the sequencing developed with reference to these studies is provided by Loubser and Laurens's (1994) analysis of the chronology of the paintings in the Caledon River Valley. Not only does this work complement the rock art sequencing work undertaken in the KZN Drakensberg but it helps to clarify a point that I discuss later, namely, that Vinnicombe (1976) conflated several phases into an uppermost layer containing both shaded paintings and colonial imagery.

Russell and Swart used the Harris Matrix methodology in the construction of their sequences. All except for Pager investigated the full range of painted imagery. While Pager focused exclusively on eland (cf. Pearce 2002), he believed that the establishment of a relative sequence for these paintings would "elucidate the sequence of most of the other paintings" because these paintings showed the greatest range in colour schemes, and because their large size and "ubiquity" meant that they were involved in the "majority" of superimpositions (Pager 1971: 353). These various schemes make possible an overall interpretation of some of the notable changes that have typified the development of KZN Drakensberg paintings. I nevertheless appreciate that this work is still in its infancy and that regional and possibly even site and intra-site sequences might later emerge within the general scheme.

Before addressing the painting sequences, it is necessary to consider (albeit briefly) Pearce's (2006) criticisms of the application of the Harris Matrix method for sequencing paintings in the KZN Drakensberg, and in particular the work of Swart, and the insights that have been generated using this methodology. Swart (2006) has already provided a robust response to Pearce's critique of her work. Pearce (2006: 174), for instance, draws a distinction between the supposed "originally continuous" nature of ground deposits and the discontinuous nature of paintings, which he believes invalidates the use of the Harris Matrix as a way of sequencing the paintings. In response, Swart (2006: 178) pointed out that Pearce's "characterisation of ground deposits is too simplistic", a point that I would like to reiterate. I have commented elsewhere that "the tension experienced by Vinnicombe and Swart in formulating layers of painting by combining smaller stratigraphic units resonates with the experience of excavators making the same decisions with earth-based archaeological deposits" (Mazel 2009: 83).

Pearce (2006: 176; see also Pearce 2002) does recognize that some "broad trends are evident in the various sequences, but [suggests] that they are largely a product of preservation rather than cultural practice". Furthermore, Pearce (2006: 176, my emphasis) comments that, "Given the well-known fugitive nature of white pigment, it

TABLE 1

Radiocarbon dates from the excavation of rock shelters and dating of rock art in the KZN Drakensberg from the last 3000 years (Cable et al. 1980; Maggs & Ward 1980; Mazel 1984, 1990, 1992a; Mazel & Watchman 1997, 2003). The calibrated date ranges come from the 1993 Calibration Programme for C14 dates (Talma & Vogel 1993). One (in parentheses) and two-sigma ranges are provided. Calibrations are rounded off to the nearest 10. The combined ranges of linked dates are calculated by averaging the end-dates of the relevant ranges.

Site	Stratigraphic unit/Layer	Date (b.p.)	Laboratory number	Calibrated date range	Linked date ranges
<b>Northern and Central Drakensberg</b>					
<i>Excavations</i>					
Clarke's	Layer 2	1580 ± 50	Pta-2973	AD 420 (450–600) 630	
	Layer 3	2160 ± 50	Pta-2971	350 (190–50) 10 BC	
	Layer 3	2380 ± 50	Pta-3274	510 (410–380) 250 BC	
Collingham	TBS	650 ± 50	Pta-5092	AD 1290 (1300–1410) 1420	
	TBS	1260 ± 50	Pta-5408	AD 680 (770–880) 960	
	BSV1	1810 ± 60	Pta-5265	AD 120 (220–370) 410	
	VP2	1770 ± 50	Pta-5274	AD 220 (250–400) 420	
	BSV2	1800 ± 50	Pta-5096	AD 140 (230–370) 410	
	GAD	1830 ± 50	Pta-5098	AD 120 (210–330) 390	AD 136 (206–342) 390
Diamond 1	BSV3	1880 ± 45	Pta-5101	AD 80 (120–240) 320	
	Layer 1	2810 ± 60	Pta-2977	1030 (980–830) 810 BC	
Driel	Layer 2	3020 ± 60	Pta-2974	1390 (1290–1110) 1010 BC	
	Older Ash	1775 ± 40	Pta-1381	AD 230 (250–380) 410	
Mhlwazini	Layer 2	190 ± 45	Pta-5102	AD 1660–1940	
	Layer 3	320 ± 40	Pta-4850	AD 1510 (1530–1660) 1790	
	Layer 4	580 ± 50	Pta-4864	AD 1310 (1400–1430) 1450	
	Layer 5	2280 ± 50	Pta-4868	390 (380–200) 170 BC	
	Layer 6	2760 ± 50	Pta-4876	990 (910–810) 800 BC	900 (850–670) 610 BC
	Layer 6	2570 ± 60	Pta-5045	810 (790–530) 410 BC	

TABLE 1 (continued)

Radiocarbon dates from the excavation of rock shelters and dating of rock art in the KZN Drakensberg from the last 3000 years (Cable et al. 1980; Maggs & Ward 1980; Mazel 1984, 1990, 1992a; Mazel & Watchman 1997, 2003). The calibrated date ranges come from the 1993 Calibration Programme for C14 dates (Talma & Vogel 1993). One (in parentheses) and two-sigma ranges are provided. Calibrations are rounded off to the nearest 10. The combined ranges of linked dates are calculated by averaging the end-dates of the relevant ranges.

Site	Stratigraphic unit/Layer	Date (b.p.)	Laboratory number	Calibrated date range	Linked date ranges
<b>Northern and Central Drakensberg</b>					
<i>Paintings</i>					
Esikolweni	ANDRA 3; white and orange Eland	330 ± 90	OZB 127U	AD 1440 (1490–1790) 1920	
Barnes's	ANDRA 12; dark crust covering paintings	1060 ± 65	OZD 446	AD 890 (980–1040) 1170	
White Elephant	ANDRA 25; crust covering mono-chrome red human figure	1930 ± 65	OZD 452	10 BC (AD 60–220) AD 260	
Hightmoor 1	ANDRA 19; crust under bichrome red and white hartebeest	2310 ± 70	OZD 450	410 (390–200) 170 BC	
Main Cave (North)	ANDRA 17; crust under shaded polychrome rhebuck	2360 ± 70	OZD 449	530 (410–370) 190 BC	
Main Cave (North)	ANDRA 15; crust under red torso of red and white bichrome eland	2900 ± 80	OZD 447	1270 (1130–910) 830 BC	
Main Cave (North)	ANDRA 16; crust under white neck of red and white bichrome eland	2760 ± 80	OZD 448	1020 (920–810) 780 BC	1145 (1025–860) 805 BC
Hightmoor 1	ANDRA 21; accretion under red and white bichrome eland	2770 ± 75	OZD 451	1020 (930–810) 790 BC	
<b>Southern Drakensberg</b>					
Good Hope 1	Layer 2	2160 ± 40	Pta-838	330 (190–60) 30 BC	

is hardly surprising that this colour is found *only* in more recent paintings. Similarly, shading is unlikely to be found in old, faded paintings where some colours have disappeared”.

The situation regarding the preservation of the paintings, and especially white paint, is considerably more nuanced than Pearce (2006) concedes. To begin with, Ward and Maggs’s (1994) research at Main Caves demonstrates that there is a significant difference in the deterioration rates between paintings made in the nineteenth century and “earlier paintings”, which include shaded polychromes (see also Vinnicombe 1976; Ward 1997). They conclude that “while most earlier paintings show no clear evidence of deterioration, all the nineteenth-century examples have suffered” (Ward & Maggs 1994: 174) since they were first recorded in the nineteenth century. It has, however, been widely acknowledged that rate of preservation, especially that of white pigments, influences how paintings look today. For example, I noted that it is “possible that the oldest monochrome paintings were originally bichrome and that the white has disappeared with time” (Mazel 2009: 93), while the fugitive nature of white paint in the Caledon Valley has made it “difficult to establish the exact proportions of paintings which were shaded” (Loubser & Laurens 1994: 86). On the other hand, it is evident from data available in the KZN Drakensberg (presented later) that in certain circumstances white paint has survived for hundreds and possibly even thousands of years; this means that we cannot, therefore, simply accept Pearce’s view that white paint is *only* present in more recent paintings.

Considering the painted sequences, Russell (2000) has compared her sequence at Main Cave North in the central KZN Drakensberg with Pager’s (1971) from the north and Vinnicombe’s (1976) from the south. Shaded polychromes enter the painted record at the same point in all three sequences (Table 2). It is noteworthy, however, that Pager has the introduction of shading in two colours in a previous layer (i.e. his Style 3) for which Russell and Vinnicombe have no equivalent (Table 2). Excluding Russell’s Layer 4, which comprises monochrome white rhebuck, and which has not been recognized as a distinct layer by Pager, there is agreement between their respective sequences about the temporal distribution of shaded polychrome imagery. Significantly, shaded polychromes are absent in the upper two layers of Russell’s and Pager’s sequences, except for what Pager (1971: 354) refers to as “a few exceptional shaded specimens”. Considering the incidence of shaded polychromes at Main Caves North, Russell (2000: 64) comments that they “are neither the earliest type of painting nor the latest. As a category, they are found predominantly in the middle of the sequence of paintings at Main Caves North”. The same insight applies to Pager’s scheme.

Russell (2000) summarises the differences between her and Pager’s (1971) uppermost layers, which lack shaded polychromes, and the underlying shaded polychrome layers (Table 2). Additional differences between these layers identified by Pager include:

- a “strikingly fresh appearance of the vermilion” which he believes is “noteworthy since such bright red is not found in the older paintings” (Pager 1971: 354);
- the return to the flat painting technique (i.e. unshaded);
- the introduction “of other colour schemes which are not encountered in the older schemes” (e.g. the combination of red and black (Pager 1971: 354)); and,
- while large and small eland occur in all the layers, there is “a noticeable increase in size during the period of the shaded polychromes and a subsequent decrease with the return to the more simple techniques of painting” (Pager 1971: 356).

It is evident that Pager observed clear distinctions between the painted layers that contained shaded polychromes and those that lacked them. I now consider the evidence from Vinnicombe's (1976) sequence.

While it is practicable to compare the early and middle part of Vinnicombe's (1976) sequence with Russell's and Pager's, the same cannot be said for the upper half of

TABLE 2

Comparison of Pager's, Vinnicombe's and Russell's sequences. After Russell (2000: table 6).

<b>Pager</b>	<b>Vinnicombe</b>	<b>Russell (Main Caves North)</b>
<b>Style 1:</b> Monochrome dull red.	<b>Phase 1:</b> Dark red/maroon stain. Possibly monochrome. Horizontal blacks (animal).	<b>Layer 1:</b> Monochrome dark purple bovids and human figures. Monochrome orange paint and monochrome brown human figures. Bichrome dark purple and white bovids. Paint is stained into rock face.
<b>Style 2:</b> Bichrome dull red and white.	<b>Phase 2:</b> Human figures and animals in shades of red and white details. Stain or thin film of paint. Some blending.	<b>Layer 2:</b> Bichrome human figures (red and white). Polychrome eland (purple/maroon, white and black).
<b>Style 3:</b> Shaded in two colours: dull red and white. Black introduced for human figures.	No equivalent.	No equivalent
<b>Style 4:</b> Shaded polychrome only. Black used for horns, hooves and back stripe.	<b>Phase 3:</b> Shaded polychromes (rhebuck and eland). Use of perspective. Fine details on human figures. Unshaded monochromes, bichromes and polychromes persist. Paint is thick and brushstrokes show. Lots of colours and blending. Black for details.	<b>Layer 3:</b> Polychrome shaded eland and bovids (pink, brown, purple, orange, black, white). Human figures bichrome (orange and brown). Black for details. Thick paint and brushstrokes.
No equivalent.	No equivalent.	<b>Layer 4:</b> Monochrome white (rhebuck)
<b>Style 5:</b> Shading continues with the addition of yellow and orange.	<b>Phase 4:</b> Shaded polychromes decrease. Black, yellow and orange increase. Red less common. Paint is powdery and lacks binding medium. No brushstrokes show. Eland are stylised (stiffer, more block-like representations), polychrome or bichrome in yellow/orange with white heads, necks and bellies.	<b>Layer 5:</b> Shaded polychromes.
<b>Style 6:</b> Unshaded polychrome eland in bright yellow, red and orange with black and white. Black and dull red are combined.	Equivalent to Phase 4.	<b>Layer 6:</b> Monochrome pink (rhebuck, finger-painted dots) and monochrome brown-red (therianthropes).
<b>Style 7:</b> Unshaded monochromes and bichromes in white, black, bright red, yellow and orange. A few shaded motifs.	Equivalent to Phase 4.	<b>Layer 7:</b> Bichrome (yellow and white) and polychrome (yellow, white and black) eland.

Vinnicombe's sequence. When compared with their sequences, she appears to have combined three phases into one (Table 2; Mazel 2009). For example, commonalities between Vinnicombe's fourth phase and Russell's Layers 5–7 are evident, as reflected in the decrease in shaded polychromes and the increasing range of colours used by the artists. Furthermore, Swart (2004: 29) notes that "Vinnicombe's Phases 3 and 4 compare well to the final phases at Ngwangwane 8, except that Ngwangwane 8 has no images depicting European contact". Colonial imagery is also absent in Russell's Main Caves North sequence, though it does occur in Main Caves South. One of the challenges facing the future sequencing of the paintings will be to separate Vinnicombe's Phase 4 into finer stratigraphic units (Mazel 2009: 94). It is nonetheless pertinent that Vinnicombe (1976: 141) identified a decrease in shaded polychromes in her uppermost layer, which resonates with the trends identified by Pager and Russell. It is possible that differences exist in the painted sequences between the north and south KZN Drakensberg, however, reference to the Caledon Valley, to which we turn next, suggests that this is not the case.

Loubser and Laurens's (1994: 89) observations in the Caledon Valley provide support for the need to reconsider the efficacy of Vinnicombe's Phase 4. Reflecting on the stratigraphic relationship between shaded and blocked paintings, they conclude that "the consistent link between subject matter, pigment use, mode of depiction and motif layout, imply that the blocked paintings of domestic animals and shields can be systematically distinguished from earlier shaded paintings". According to them, the primary differences between these sets of paintings are, first, that the shaded paintings appear to have superior binding properties to the 'blocked' paintings. Secondly, shaded domestic animals and shields are absent, with the exception of fourteen sheep paintings and two cattle paintings. With regard to this point, it is of interest that none of the 56 paintings of bovids, sheep and dogs that Pager (1971: 328) recorded in the Cathedral Peak and Cathkin Park areas has been done in the shaded technique.

Thirdly, blocked motifs appear to be more squat than shaded ones and are seldom superimposed on other paintings of the same type, whereas "many shaded polychromes are usually superimposed on other shaded polychromes, and in some shelters up to six layers of superimpositioning can be distinguished" (Loubser & Laurens 1994: 89).

Fourthly, "where blocked depictions of domestic ungulates and shields occur in the same panels as shaded paintings, the blocked paintings are always on top of shaded ones" (Loubser & Laurens 1994: 89).

Swart (2004) conducted Harris Matrix analyses of the rock art at Eland Cave in the northern KZN Drakensberg and Ngwangwane 8 in the south, but unfortunately did not specifically identify shaded polychromes in her published sequences. Nonetheless, she (2004: 27) notes that shaded paintings are present from mid-sequence and comments that they occur "to the end". Considering the individual sequences, shading is absent in the Eland Cave Z8PD panel, but occurs roughly in the middle of her five-phase sequence in the Z8PB panel at this site.

Many decades before Swart did her research, Mason (1933) had already noted that shaded polychromes occurred in the middle of the Eland Cave painted sequence and that there was a clear break between the stages which contained shaded polychromes and those which did not. Mason (1933: 134) commented that the stage immediately overlying the final shaded polychrome stage

is in marked contrast to the previous one. Less attention has been paid to detail, but the figures, mostly of eland, are strongly impressionistic. The colours used in this series have faded more rapidly than those of earlier series. The technique of pigment preparation had therefore also deteriorated.

The latter point reinforces the observation made by Ward and Maggs (1994) at Main Caves that the earlier paintings appear to have survived better than the later ones.

At Ngwangwane 8, shaded paintings occur in the middle of the sequence and then, after an absence in the two overlying phases, reappear in the penultimate layer. Swart (2004: 24) describes it thus: “Towards the end of this phase these colours [i.e. red, red and white, maroon and white] are combined with orangey-reds, and shading occurs”. It would appear from the last part of the comment that shading is not a particularly significant feature of the layer. The possibility exists that its presence in this layer is commensurate with Pager’s (1971: 354) reference to “a few exceptional shaded specimens” in his uppermost painted layer. No information is forthcoming from either Pager or Swart as to whether the nature of the late shading identified by them differs from the earlier occurrences.

The advent of shaded polychromes in the KZN Drakensberg also coincides with other innovations in the painted record. Vinnicombe (1976) links it to the introduction of elements of perspective, while both Russell (2000) and Swart (2004) indicate that it coincides, sequentially at least, with the appearance of rhebuck. Furthermore, Swart (2004) suggests that shading was accompanied by the introduction of other animals into the painted record, such as bushpig, hartebeest, reedbuck and felines (Figs 4–6).

*AMS dating of the paintings and oxalate crusts associated with the paintings*

Elsewhere I considered the relationship between the relative and absolute dating of the KZN Drakensberg rock art and emphasised how the integration of information



Fig. 4. Botha's Shelter: shaded polychrome feline and two shaded polychrome foreshortened eland. Scale in centimetres.



Fig. 5. Battle Cave: polychrome otter on the underside of a rock. Scale in centimetres.

from these studies can be used to develop a deeper understanding of the pre- and early colonial history of the region (Mazel 2009). Referring to the same data, Mitchell (2009: 34) commented that “it is apparent that some of the stylistic sequences previously proposed can be supported by these dates and by detailed studies of superimposition”. Here I review the radiocarbon dates produced thus far with the specific objective of establishing a chronological context for the shaded polychrome paintings.

Alan Watchman and I conducted an AMS radiocarbon rock-painting dating programme in the northern and central KZN Drakensberg (Mazel & Watchman 1997, 2003). The programme comprised two phases. The initial phase yielded dates of  $330 \pm 90$  b.p. and  $420 \pm 340$  b.p. We rejected the latter date because of its large standard deviation. The



Fig. 6. Eland Cave: shaded polychrome bushpig. Scale in centimetres.

330 b.p. date, from Esikolweni Shelter, was obtained on a piece of plant fibre in the paint of a bichrome orange and white eland (Mazel & Watchman 1997). It has a one-sigma calibrated range of AD 1490–1790, showing that this white paint has possibly survived for as long as 500 years (Table 1).

During the second research phase a further seven radiocarbon dates were obtained on carbon in salt-rich crusts that lay either beneath or on top of paintings (Table 1). These radiocarbon dates provide estimates for the formation of the salt, indicating a minimum age for a painting where the salt was deposited on the paint and a maximum age when the salt formed prior to painting. Watchman and I believe that “if the oxalate salt formation process is ongoing, then the difference in time between the measured age for oxalate formation and painting is *probably not large, and is likely to be hundreds rather than thousands of years*” (Mazel & Watchman 2003: 64, my emphasis). The relationship between crust formation and related factors such as climate and geology is deserving of additional research to help clarify the association between the age of the crusts and the associated paintings.

Two of the dates derive from crusts which lie over paintings and so provide minimum ages: ANDRA 12 at Barnes’s (AD 980–1040), and ANDRA 25 at White Elephant (AD 60–220). These dates, and especially the White Elephant date, provide strong evidence for the early presence of parietal imagery in the KZN Drakensberg.

The other five dates derive from crusts that are underneath paintings and therefore provide maximum ages for the paintings. Two of the dates, ANDRA 15 and 16, come from a crust underlying a bichrome, red and white eland at Main Caves North that belongs to Russell’s second-oldest Layer 2 (Fig. 7). The two dates give a combined one-sigma calibrated range of 1025–860 BC (Table 1). The similarity of the two samples “points to a high degree of confidence and reliability in the method”, given “the potential for



Fig. 7. Main Caves North: eland overlying dated crust (ANDRA 15 and 16). Sticks show where the samples were taken. Scale in centimetres.

variability in oxalate deposition across a surface and the vagaries of sample collection and preparation on a micro-undulating surface” (Mazel & Watchman 2003: 66). Even if these dates are several hundred years older than the painting itself, it still points to the likelihood that the eland was painted well before 2000 years ago.

A crust underlying the shaded polychrome rhebuck at Main Caves North (Fig. 8), which Russell could not assign to a layer, dates to 410–370 BC, suggesting that it is several hundred years younger than the bichrome eland. The likely time lapse of hundreds of years between crust formation and the execution of the paintings, mentioned above, suggests that this rhebuck was painted around 2000 years ago, although it is not possible to provide a more exact estimation at this point.

The only other dated crust that is roughly contemporaneous with that of the rhebuck is associated with a bichrome red and white hartebeest from Highmoor 1 (390–200 BC). As I mentioned earlier, Swart (2004) suggested that hartebeest were introduced into the KZN Drakensberg painted record at the same time as shaded polychrome paintings.

Considering all the dated crusts, excluding Barnes’s Shelter, it is significant that paintings whose crusts predate the crust beneath the shaded polychrome rhebuck are either bichrome eland or a monochrome human figure. The emerging pattern from the radiocarbon AMS dating programme, of bichrome eland and monochrome humans preceding shaded polychrome rhebuck and hartebeest, accords well with trends identified in the painting sequences developed by Russell (2000) and Swart (2004). It will, however, require verification along with additional research into, for example, the sequencing of the paintings and the rates at which the crusts grow.



Fig. 8. Main Caves North: rhebuck overlying dated crust (ANDRA 17). Stick shows where the sample was taken. Scale in centimetres.

Finally, the dates on the crusts associated with the bichrome eland and shaded polychrome rhebuk at Main Caves North allow us to offer a comment on the position of the rhebuk in Russell's sequence. Given that the likely difference in age between these paintings is several hundred years, it is not unreasonable to conclude that the polychrome shaded rhebuk either belongs in Layer 3, which saw the introduction of shaded polychromes, or Layer 5, which also contained shaded polychrome paintings (Table 2).

### *Collingham Shelter*

The excavation of Collingham Shelter in the late 1980s represented a significant turning point in the understanding of KZN Drakensberg hunter-gatherer history. Not only did the site yield extensive food remains that shed new light on the diet of the hunter-gatherers but it also produced a rich cultural assemblage. This included a painted slab (Fig. 9) recovered from deposits securely dated to between AD 200 and 350 and a collapsed ceiling bearing paintings (Fig. 10; Mazel 1992a, 1994). While the painted slab provided the first indication of the antiquity of the region's painting tradition, previously thought to be less than a thousand years old (Lewis-Williams & Dowson 1992), the paintings on the collapsed ceiling provided the first indication that the shaded polychromes are older than previously believed.

The images on the collapsed ceiling include the neck and head of a shaded polychrome eland and a white rhebuk immediately to the right of it (Fig. 10). At Main Caves North, white rhebuk occur in Russell's Layer 4, which lies between two layers with shaded-polychromes. These three layers may be roughly coeval.

A radiocarbon date from a piece of wood lying on top of the Collingham Shelter deposit, immediately beneath the collapsed ceiling, suggests a minimum age of 600–700 years for such paintings (Mazel 1992a; Table 1). Of course, the possibility exists that the ceiling collapsed long after the piece of dated wood was left in the rock shelter. However, the general condition of the wood and my assessment of the archaeological remains recovered

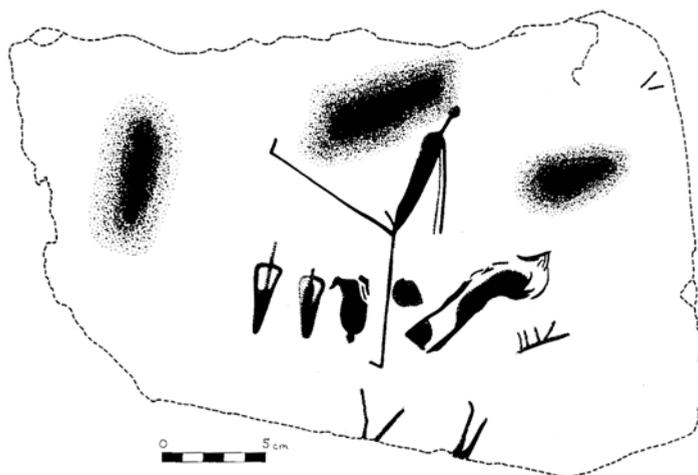


Fig. 9. Collingham Shelter: painted slab from 1800-year old deposits. Drawing by Paul den Hoed.

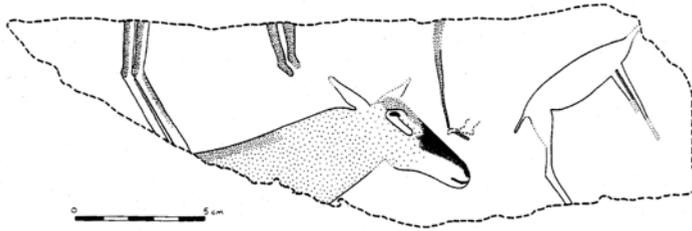


Fig. 10. Collingham Shelter: piece of collapsed ceiling with a shaded polychrome eland and white rhebuck on it. Drawing by Paul den Hoed.

during the excavation led me to conclude that use of the site was ended by the ceiling collapse around, or shortly after, AD 1300–1400 (Mazel 1992a).

Of further relevance to the age of the paintings on the ceiling is that the seven radiocarbon dates from Collingham Shelter show that possibly over 90 %, but certainly more than 85 %, of the occupation dates to AD 200–350, with brief visits represented by material from around AD 800 and 1300–1400 (Mazel 1992a). It should be noted, however, that no actual deposits were associated with the dated piece of wood.

Further, the early Collingham Shelter deposits yielded an abundance of ochre pieces ( $n = 467$ ), including ground specimens ( $n = 7$ ), and many artefacts used for processing ochre (e.g. ochre-stained grindstones and palettes), while the ephemeral ca. AD 800 deposits yielded only 14 pieces of unground ochre. The density of ochre in these later deposits was, therefore, much lower than in the underlying deposits (Mazel 1992a). Thus, while it is possible that the shaded polychrome eland and white rhebuck were painted after (or perhaps even before) the primary occupation of the site between AD 200 and 350, the combined data suggest the two are associated.

#### *Portable art at Collingham Shelter and Cascades 2*

I have already noted that the advent of shaded polychromes in the KZN Drakensberg coincides with other innovations in the painted record, such as elements of perspective and possibly rhebuck, bushpigs, hartebeest, reedbuck and felines. Portable rock art was another possible innovation at this time, although I appreciate that it dates back to the early Holocene elsewhere in southern Africa (e.g. Deacon et al. 1976; Mazel 2007a; Singer & Wymer 1969; Thackeray 1983; Walker 1995).

The only securely dated portable rock art from the KZN Drakensberg came from the AD 200–350 deposits at Collingham Shelter (Fig. 9; Mazel 1992a, 1994). Central to the imagery on this portable is a prominent male figure with an erect penis and his arms behind his back in the posture that shamans adopted when asking for potency to be put into them (Lewis-Williams 1981). The painting provides testimony to the antiquity of trance performance among the KZN Drakensberg hunter-gatherers.

The only other known rock art portables from this region were recovered from the surface of Cascades 2 (Figs 11 & 12; Swart & Escott 2003). According to Swart and Escott (2003: 78), three of the four stones contain indistinct paint, while the fourth has

what appears to be four rhebuck. ... Two of the rhebuck are lying facing opposite directions, one is standing, whilst the posture of the fourth rhebuck is indistinct. The antelope have white underbellies, red backs and pale red sides. There is evidence of white paint on the heads and lower legs.

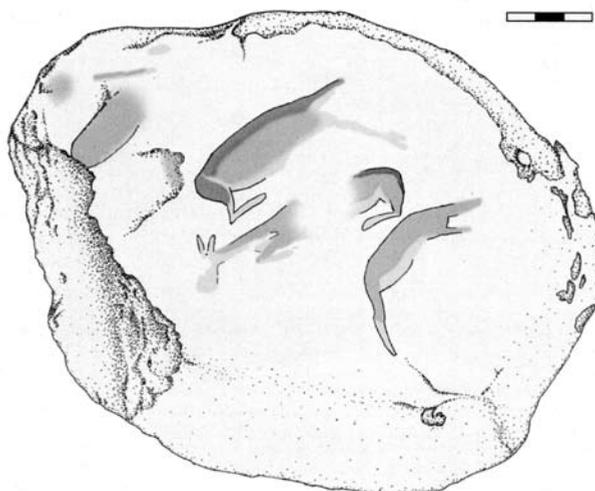


Fig.11. Cascades 2: portable (Swart & Escott 2003). Scale in centimetres.

Several points can be offered about this rhebuk portable. First, I suggest that the indistinct posture is that of a rhebuk viewed from above. This posture (and shape) is reminiscent of one of the shaded polychrome eland from Bundoran 1 (Fig. 13). If correct, the significance of this feature is that it, together with the reclining posture of two rhebuk



Fig. 12. Cascades 2: portable.

on the same portable, reflects some of the new perspectives of representing animals introduced into the art during the shaded polychrome period (Vinnicombe 1976).

Secondly, although the rhebuck were not painted in the shaded polychrome style, they were rendered in three colours (i.e. white underbellies, red backs and pale red sides) and their colouring evokes similarities with that of the shaded polychrome paintings, especially regarding the pale red sides referred to by Swart and Escott (2003). Thirdly, Pager (1973: 40) has commented that a feature of KZN Drakensberg shaded polychromes “is the rendering in white of the inner portion of the animals’ far-side legs, which is in accord with their actual appearance”. This description characterises the legs that are visible on the two reclining rhebuck (Figs 11 & 12).



Fig. 13. Bundoran 1: shaded polychrome herd of eland. Note the reclining eland (see arrow) shown from above on the top right hand side of the panel. Scale in centimetres.

Finally, shaded polychrome paintings are visible on the shelter wall at Cascades 2, therefore indicating that this style of painting was practised at this site. While insufficient data prevents us from being certain about the chronology and cultural associations of the Cascades 2 portables, the above points raise the possibility that, along with the Collingham Shelter specimen, these portables were made during the shaded polychrome period. This would be hardly surprising given the array of innovative elements introduced into the art at this time.

*A chronology for the shaded polychrome paintings: drawing together the different strands of evidence*

In the earlier sections I considered the different bodies of evidence that shed light on the chronology of the shaded polychromes in the KZN Drakensberg, namely: the timing of the hunter-gatherer occupation, with particular emphasis on the central and northern regions; the relationship between the parietal and portable art, occupation history, and ochre densities at Collingham Shelter; the relative sequencing of the paintings, the AMS radiocarbon dating of the paintings and their associated crusts; and the portables from Collingham Shelter and Cascades 2. Drawing together the different threads of evidence, I propose that the shaded polychrome paintings, with few exceptions, occur in the middle of the KZN Drakensberg painted sequence and that they emerged around 2000 years ago. In terms of AMS radiocarbon dating, it is noteworthy that while only one radiocarbon date is associated with a shaded polychrome figure, that five other dates obtained on crusts provide supporting evidence for the suggestion that they were first made around 2000 years ago.

While Pager (1971: 356) believes that the sudden disappearance of shaded polychrome paintings may relate to “the waxing and waning of confidence of the painters” I argue here instead that this phenomenon is associated, at least in the northern KZN Drakensberg, with the hunter-gatherers ostensibly abandoning the mountains about 1600 years ago for a 1000-year period after agriculturists began settling in the central Thukela basin. When the hunter-gatherers reoccupied the northern KZN Drakensberg around 600 years ago, they no longer produced shaded polychrome paintings, save a few exceptions. I therefore propose that the shaded polychrome phase of painting relates to a period between around 2000 and 1600 years ago in the northern KZN Drakensberg. It is not possible, with the available data, to comment with any level of certainty as to whether the terminal date identified for the shaded polychromes in the northern KZN Drakensberg is applicable across the whole of the KZN Drakensberg and the southeastern mountains; this is a matter for future research. However, I suggest that the emergence of the shaded polychrome tradition across the southeastern mountains formed part of the hunter-gatherer response to the arrival of agriculturist communities in southern Africa. I explore this next.

#### PLACING THE SHADED POLYCHROMES IN SOCIAL CONTEXT

*A changing social landscape*

In the northern KZN Drakensberg, hunter-gatherers experienced a process of internally generated social and economic intensification between 3000 and 2000 years ago (Mazel 1989, 1990, 1992b). The recovery of marine shell and the bones of impala and blue and red duiker in the 900–200 BC deposits at Mhlwazini Cave (Mazel 1990) in the northern

KZN Drakensberg shows that this process involved contact with the coast over 200 km to the east. Hunter-gatherers may even have travelled between the mountains and coast.

It would appear, however, from evidence recovered in the northern and central KZN Drakensberg and adjacent areas, that the following period between about 2000 and 1600 years ago witnessed even greater change in hunter-gatherer society across the eastern part of southern Africa. This is evidenced by the introduction of new material cultural items into the excavated archaeological record and changes in the distribution of existing items. The new items, which include pottery and metal beads, along with the shaded polychrome paintings, are indicative of the changing social landscape at the time. Especially noteworthy in the KZN Drakensberg and adjacent areas was the advent of pottery around 2000 years ago and the possible related introduction of copper and iron beads (Mazel 1992a, 1992c). Another significant item from this period is the open bowl carved out of talc schist from Driel Shelter on the outskirts of the northern KZN Drakensberg, because the nearest talc schist source to this site is some 160 km to the east in the Thukela basin (Maggs & Ward 1980).

In addition to the advent of individual items of material culture into the archaeological record, Mitchell (1996, 2009) and I (Mazel 1989, 1998) have demonstrated that there was a change in the distribution of material cultural (e.g. ostrich egg shells and marine shells) in the southeastern mountains and adjacent areas from around and just after 2000 years ago. Both of us suggest that the new material cultural patterning reflects transformations in the exchange and networking systems among hunter-gatherers, therefore, providing further indication of the substantial social changes that were taking place at the time.

In the context of the Thukela basin, of which the northern KZN Drakensberg forms part, I proposed that the hunter-gatherers extended their exchange networks beyond existing boundaries because they experienced anxiety about their social reproduction due to the changed social landscape following the arrival of agriculturist communities (Mazel 1989, 1998). In a similar vein, Mitchell (2009: 28) suggested that “soon after 2000 years ago, hunter-gatherers in Lesotho’s eastern highlands, and perhaps the Drakensberg escarpment as well, substantially reoriented their contacts to the west, away from the more coastward parts of KwaZulu-Natal”.

It is evident that from at least 2700 years ago the northern KZN Drakensberg hunter-gatherers had widespread exchange networks and that these persisted through to 1600 years ago when the hunter-gatherers abandoned the KZN Drakensberg to settle closer to agriculturist communities in the central Thukela basin. Given their widespread reach during this time, the hunter-gatherers were probably aware of the movement of agriculturist communities down the African east coast long before they actually arrived on the KZN coast around AD 400 (Whitelaw & Moon 1996), especially as even earlier agriculturist community sites, dating to between AD 250 and 400, are known from the Limpopo province of South Africa, Swaziland, southern Mozambique and southeast Zimbabwe (Mitchell & Whitelaw 2005: 222). The general timing provided by Mitchell and Whitelaw is corroborated by Huffman (2007), who actually provides a slightly earlier start to the Early Iron Age in southern Africa of around AD 200. Of particular relevance to my argument is that Silver Leaves agriculturists were present between AD 280 and 450 in west Swaziland and eastern Mpumalanga (Huffman 2007: 123), which are only several hundred kilometres to the north of the northern KZN Drakensberg.

We do not know (and may never know) exactly when hunter-gatherers in the KZN Drakensberg first received information about the agriculturist communities migrating southwards, but there are numerous examples from around the world which show that indigenous societies had extensive networks that stretched over hundreds of kilometres and were often aware of, and experienced, the impact of incoming peoples well before contact.

In Australia, Mulvaney (1976) used the term ‘chain of connection’ to characterise the movement of both people and goods, in some instances over hundreds of kilometres, recorded by ethnographers in the nineteenth and twentieth centuries. Chains of connections perhaps even linked Aboriginal communities from one side of the continent to the other. Furthermore, Mellars (2005: 22) has commented that these chains of connection have been

widely documented among recent hunter-gatherer groups, and are known to have carried both technological ideas and particular elements of material culture, such as prized species of marine shells and especially valued raw materials, over distances of several hundred and, in some cases, thousands of kilometres.

Other scholars use the notion of ‘ripple’ or ‘bow-wave’ effects to represent the impact of geographically distant new or advancing populations. For example, addressing the origins of modern human behaviour in Europe, Mellars (2005: 22) proposed, along with the arguments regarding ‘direct interaction or acculturation effects’, that the

ripple or ‘bow-wave’ effect of cultural and technological diffusion, potentially extending well in advance of the actual dispersal of behaviourally and anatomically modern humans across Europe. The premise, quite simply, is that among the later Neanderthal populations ... there must inevitably have been various forms of communication or interaction between geographically adjacent groups.

More recently in North America, Smoak (2006: 60) commented that “Plateau Indians knew of the whites, and their societies were experiencing major changes before the first explorers and traders entered their homelands”. Support for Smoak’s observation derives from Aberle’s comment (1959: 76) that it “is perfectly possible that cult movements may occur in ‘native’ groups in the absence of direct or mediate contact with Western culture”.

Returning to southern Africa, the incoming agriculturists around 2000 years ago had a substantially different worldview from that of the hunter-gatherers, with subsistence strategies based on domestic foodstuffs and settled village lifestyles. By contrast, hunter-gatherer social organisation was largely centred on mobile bands of between 25 and 50 people. Recent thinking about the newly arrived agriculturists is that they already had a well-established patrilineal social organisation in place, represented by Central Cattle Pattern (CCP) settlements in which a domestic area was arranged around a male-oriented centre where cattle were penned (Huffman 2007, Mitchell & Whitelaw 2005).

Moore (1985) proposed that the impact of agriculturists on hunter-gatherers when they moved into areas occupied exclusively by hunter-gatherers could have been both indirect and gradual. In such cases, he notes, agriculturists do not threaten the hunter-gatherer resource base, but they do influence patterns of movement which, in turn, impact on social and ecological knowledge and therefore threaten hunter-gatherer social relations. This may lead to a situation where the social environment begins to feel crowded well before food items become scarce. This may well have occurred in the Thukela basin, as there is little evidence of competition for subsistence resources (Mazel 1998). Furthermore, Moore (1985) also suggested that the process of settling side by side may also disrupt

hunter-gatherer dispute-resolution mechanisms and lead to a growth in ritual activities as a way of easing tensions. I return to this point later.

Drawing on insights obtained by examining material cultural patterning, site distributions and social relations, I argued that during the first millennium AD the Thukela basin hunter-gatherers and agriculturists coexisted, albeit with ambivalence:

On the one hand, their relations were close and harmonious, but, on the other hand, and from a hunter-gatherer perspective, they were never quite trusting that their relations with the agriculturists could provide them with a secure future (Mazel 1998: 102).

My understanding was consistent with my earlier conclusion that the Thukela basin hunter-gatherers expanded their exchange networks during the first millennium AD, because they may have experienced anxiety about their social and biological reproduction (Mazel 1989). It also agrees now with Mitchell's observation (2009), mentioned earlier, that shortly after 2000 years ago, hunter-gatherers in the eastern highlands reoriented their contacts towards the west, and away from the coastward areas to the east.

Although I suggested that relations between hunter-gatherers and agriculturists were harmonious, and Kopytoff has noted that prestige attributed to 'firstcomers' is a "quintessentially frontier idea", in "areas of multilayered ... occupation and of centuries of mobility ... [as may have occurred in southeastern Africa during the early part of the first millennium] ... the earliest inhabitants do not necessarily enjoy the greatest prestige; often, quite the opposite" (Kopytoff 1987: 53). It is possible this latter phenomenon characterised the initial contacts between the hunter-gatherers and the southward-moving agriculturists. It is further possible that the impact of this relationship was felt among hunter-gatherer communities in the KZN Drakensberg well in advance of the actual arrival of the agriculturists in KwaZulu-Natal, through extensive 'chains of connections'.

It might not, however, have been only agriculturist communities who were working their way south through eastern southern Africa who contributed to the increasingly complex social landscape faced by the hunter-gatherers, especially if we consider that early pottery in the region predates the arrival of the agriculturists on the KwaZulu-Natal coast by several centuries and is clearly distinct from coeval farmer pottery (Mazel 1992a, 1992c; Sadr & Sampson 2006). Additional research is required to establish the source of this pottery, but the possibility exists that the KZN Drakensberg hunter-gatherers obtained it through an extensive network of contacts that extended to the north and west, or perhaps even through small groups of itinerant mobile potters who may have visited the region. Sadr and Sampson (2006) have suggested that groups of mobile potters may have been responsible for introducing pottery to southern Africa, and this may even have been the case in the KZN Drakensberg and adjacent areas.

Another option is that the early pottery was introduced by incoming pastoralists who passed quickly through the region, or relatively close by, without leaving a clearly distinct archaeological trace (Mazel 1992c; see Sadr 2008 for a discussion of the elusive nature of pastoralists in the archaeological record). I am currently investigating this possibility by re-examining excavated and painted records of the KZN Drakensberg and adjacent areas. All of the possible scenarios mentioned above would have added layers of social complexity onto a situation that was already considerably more complicated than the hunter-gatherers had ever experienced. Either way, the advent of pottery would have been significant for hunter-gatherers, both in terms of the mechanisms through which

it reached this region and the subsequent impact that it had on their lifestyles (Mazel 1989).

I argue that the dramatic changes in the peopling of the subcontinent around 2000 years ago would have caused stress and uncertainty among the hunter-gatherers of the KZN Drakensberg and the southeastern mountains in general. The stress would have derived from a sense of irrevocable change to the social landscape over which they perceived themselves hitherto to have had exclusive control, and the concomitant impact on social and ecological knowledge, the perception of an increased crowding of the social environment, and the threat to dispute-resolution mechanisms (Moore 1985). Thus, within a relatively short period of time the hunter-gatherers went from being the sole occupiers of the land and in charge of their destinies, to sharing the land with a powerful incoming people who had substantially different worldviews and lifestyles. I suggest that this may have prompted a growth in ritual activities and trance performance as a way of ameliorating tensions, which, in turn, underpinned the emergence of the shaded polychrome tradition in the archaeological record across the entire southeastern mountains region (Pager 1973; Fig. 3). In the discussion that follows, I will consider this large region as a whole, although I acknowledge that the end date for shaded polychromes may vary throughout the region from the 1600 years ago of the northern KZN Drakensberg.

*Stress, ritual activity and the emergence of shaded polychrome paintings in the southeastern mountains*

Reflecting on the relationship between stress and ritual activity among Kalahari hunter-gatherers, Guenther (1975–76: 50) notes that as

the tensions and pressures in the farm Bushmen's everyday existence have grown so has the importance of ritual through which it is partially elaborated. Ghanzi people observe that there has been a rise in trance dance performances over the last decade ... Not only have dance performances increased in incidence but the ritual has also become more elaborate and more esoteric and the role of the shaman-dancer more specialized.

Although not referring specifically to Kalahari hunter-gatherers, Dissanayake (1995) supports this proposition by arguing that in small-scale societies, ritual activities are 'overwhelmingly' the occasions for shaping or controlling anxiety about the perceived uncertainty that would have motivated the activity in the first instance.

Guenther's insights have already been used to suggest that the abundance of horses, cattle and colonial paintings in the southern KZN Drakensberg is associated with the stress and trauma that hunter-gatherers experienced during the nineteenth century (Manhire et al. 1986). I suggest that their forbears, some 2000 years earlier, deployed the same, or similar, ritual mechanisms and strategies to cope with social anxieties, and that this, in turn, influenced an increase in painting and an efflorescence in the art, to which the shaded polychromes were central. Support for the relationship between an upsurge of social stress and the increased production of rock art can be found in many different parts of the world, such as in the Coso Range in the western United States of America. There Monteleone and Woody (1999) argue that there was a causal relationship between an 'explosion' of ritual activity and the production of rock art.

Guenther (1999: 196) considers the trance dance to be a "suitable vehicle for cultural revitalization" because of its ability to act "as a synergetic rite of intensification that engenders a strong sense of fellowship and moral well-being in its participants, and

resolves any conflicts that there may be among them". In an earlier paper, Guenther (1975–76: 51) had already identified various features of revitalization associated with trance dances, but one which is of especial importance to this paper is that they engender a

sense of ethnic identity that is San-wide and transcends the numerous linguistic and band-subdivisions. The dance itself is 'hybrid' in form and content, consisting primarily of †'au||ei and Nharo attributes and the great dancers are members of all the various linguistic groupings. The feeling is that "we are all *n\oa kwe*, people united in '*sheta*". Strength and unity are engendered as the San see themselves as a group collectively oppressed by the other groups.

In a similar vein, Guenther (1999: 196, my emphasis) concluded two decades later that "*in the modern social context of multi-ethnic conflict, the trance dance acts as a mechanism for instilling a sense of collective ethnic identity*".

Both Lee (1993) and Guenther (1999) have commented on how Kalahari trance dances can quickly gain popularity among hunter-gatherer communities and assume significant social roles. Dances may be held weekly and, occasionally, when new variations of a dance reach settlements, they may even be performed nightly. Lee (1993) describes how among the Ju'hoansi the Women's Dance, which was unknown to the Marshalls in the 1950s, had by the 1980s become more popular than even the Men's Giraffe Dance. Furthermore, Lee (1993: 119, my emphasis) notes that the Women's Dance had reached Chum!kwe during the 1960s, "and since then it has taken on the *character of a social movement, gaining new converts every year*". In a similar vein, Guenther (1999) observed that the Ghanzi San hold trance dances all-year round, and not just during aggregation periods, and that these may be performed regularly during a month or week, and that he witnessed an increase in the intensity and duration of performances, occasionally lasting for days.

An interesting parallel can be drawn between the upsurge of trance dances in the Kalahari in the second half of the twentieth century and the Ghost Dances that emerged among Native Americans in the wake of the European conquest of their lands. According to Smoak (2006: 205), "Differing interpretations and multiple levels of identity notwithstanding, the ultimate message of the Ghost Dance was one of Indian unity and identity".

I use these insights to suggest that a message of 'unity and identity' emerged among the hunter-gatherers of the southeastern mountains of southern Africa around 2000 years ago, and that the geographical extent of this 'social movement', or 'cultural revitalization', is reflected in the distribution of shaded polychrome paintings in this region as identified by Pager (1973; Fig. 3). This interpretation is supported by my (Mazel 1989, 1998) and Mitchell's (1996, 2009) conclusions, mentioned earlier, that there were substantial changes in the exchange and networking systems among the hunter-gatherers in the southeastern mountains and adjacent areas around 2000 years ago.

It is unlikely that a single unitary hunter-gatherer political entity existed across the extensive southeastern mountainous landscape during this time, but the possibility certainly exists that there were more extensive hunter-gatherer networks than before and that these were associated with larger social groupings than had previously existed. Support for this suggestion comes from the observations of Guenther (1975–76, 1999) and others who have commented on the flexibility of Kalahari hunter-gatherer social organisation. In particular, Guenther (1999: 19) noted "the structural capacity of Bushman social organization [in the Kalahari] for large, multi-band aggregation". It

may well be that this type of organisational structure, or a variation of it, characterised hunter-gatherer society in the southeastern mountains around and after 2000 years ago, and that it facilitated enhanced networking and knowledge exchange across this vast and rugged area.

Cognisant of the role that ritual plays among the Kalahari hunter-gatherers to promote harmony and social cohesion (Guenther 1975–76, 1999; Lee 1993) and the fact that eland were singled out by the hunter-gatherers of the southeastern mountains more than any other animal for rendering in the complex shaded polychrome style, I propose tentatively that a great dance centred on the eland emerged to underpin the message of ‘unity and identity.’ This ‘Great Eland Dance’, which may have been practised over an extensive area, may even have reflected the intensity of the dances known from recent times in the Kalahari and could have lasted for hundred of years and experienced many transformations during this time. This is especially likely when considering that the Women’s Dance in the Kalahari has already endured for over 90 years, and considering the widespread geographical extent of the Great Dance (Guenther 1975–76, 1999; Lee 1993).

Already in the 1930s Mason (1933: 149) noted that the ‘polychrome period’

was a period of great religious fervour evidenced by the winged antelopes, the ritual scenes, the masked dances; a time too of social organisation for we see portrayed those who are in authority.

While some of Mason’s conclusions would rightly be dismissed nowadays (for example, the representation of ‘foreign’ people in the art), it is nonetheless of great interest that he already then related the ‘polychrome period’ to a phase of ‘great religious fervour’.

Reflecting on the differences between rock art of the Western Cape and the KZN Drakensberg, Parkington (1996: 289) offers a series of useful insights regarding the influence that the agriculturists may have had on the art:

It is conceivable that, in a world peopled only by hunter-gatherers, internal politics and specifically those of age and sex which provide the primary differentiations among hunter-gatherers would dominate the expressive vocabulary. The arrival or emergence of powerful neighbours with competitive world-views could result in the replacement of these tensions by more potent threats or more complex opportunities for change. It is tempting to see the contrast between paintings in the Western Cape and the Drakensberg, where the recurrent imagery seems quite different and perhaps more hallucinatory, as a reflection of such changes.

We know from ethnographic studies that some shamans experience novel visions and present these as specifically privileged insights that distinguish them from others (Lewis-Williams 2002). It is likely that it was a combination of these mechanisms that influenced the emergence of this unique and much celebrated shaded painting tradition in the southeastern mountains. It is beyond the context of this paper to consider fully the innovative processes which led to the incorporation of visions experienced in trance in the art. I would, however, like to suggest that a group of potent and innovative shamans may have inspired the emergence of a new painting tradition through translating a series of particularly powerful and remarkable visions onto the rock face in the form of shaded polychrome eland and associated features, such as incorporating a greater variety of animals (e.g. rhebuck and felines) and rendering animals in a greater variety of perspectives. It is possible that these novel insights and visions inspired a new generation of shamans across the southeastern mountains to acquire similar intense experiences while performing the ‘Great Eland Dance’, and that this influenced the spread of the shaded polychrome painting tradition throughout the southeastern mountains.

*Cattle and eland: a possible connection*

I now turn to the special focus on the eland during the shaded polychrome period. I propose (somewhat speculatively) that this derived from the desire of the hunter-gatherers to harness what they believed to be the great power of the eland to counter that of cattle, which was controlled by the incoming agriculturists. Ethologists and rock art researchers have commented on the physical and behavioural similarities of eland and cattle, and it is more than likely that hunter-gatherers, with their renowned keen sense of observation, would have recognised these congruencies. Estes (1992: 167) noted, for example, that there are a “number of morphological, physiological, and behavioural traits that reveal the relatedness of ... [eland, cattle and bushbuck] ... and set this subfamily apart from all other bovids”. One of these is the social organisational trait of “cooperative defence of the young which makes elands still more like cattle and less like other antelopes” (Estes 1992: 189). From a rock art perspective, Lewis-Williams (2003) has explored the similarities between eland and cattle (e.g. spoor, gait, size, large dewlap) and proposed, with reference to the nineteenth century, that the association between these animals is sometimes reflected with cattle painted over eland (see also Campbell 1987; Dowson 1998; Hall 1994; Lewis-Williams 1981). He commented further that

One interpretation of this link is that the San came to believe that the cattle had a great deal of supernatural potency and that they were therefore in some sense equivalent to eland—but perhaps not exactly equivalent. Both cattle and eland, in their different ways, were mediators between people and the spirits (Lewis-Williams 2003: 111).

It is unlikely that the hunter-gatherers were unaware of the central role afforded cattle in the social and ritual activities of the agriculturists (cf. Huffman 1990, 2001, 2007; Whitelaw 1994, 1994–95). It is entirely possible that they drew strong parallels between cattle and eland. I therefore propose that the hunter-gatherers placed additional emphasis on the already spiritually powerful eland as they strove to deal with their stressful predicament during uncertain times. Ethnographic and historical accounts reveal that eland have in recent times been regarded by hunter-gatherers as powerful animals (e.g. Lewis-Williams 1981, 1987) and I suggest that this sentiment also existed 2000 years ago, when a possible ‘battle of powerful animals’ may have emerged in the minds and ritual practices of the hunter-gatherers. Special attention may have been placed on the eland as a source of power in intensified ritual activities, especially in the trance dance that we know from the Collingham Shelter portable was practised at least 1800 years ago (Mazel 1992a, 1994). In essence, the eland may have formed a vital part of the hunter-gatherer spiritual toolkit in dealing with the substantial and irrevocable changes that were undermining the world that they had known since the beginning of time.

## CONCLUDING COMMENTS

The provision of new information about the absolute and relative dating of the rock paintings of the KZN Drakensberg during the last decade, along with the re-examination of painted sequences and excavated deposits, has allowed for a re-evaluation of the age of shaded polychrome paintings and an exploration of the position that they occupied in the changing social landscape of southern Africa around 2000 years ago. Not only are shaded polychrome paintings considerably older than previously thought (with perhaps a few exceptions), but these paintings perhaps owe their existence to substantial

changes that took place on the subcontinent around 2000 years ago. These included both the reorganization and enlargement of social structures and networking and the intensification of ritual activity across the southeastern mountains. These developments were associated with the possible emergence of a 'Great Eland Dance' and substantial innovation in the paintings as reflected in the creation of shaded polychrome eland and associated imagery. In these unsettled times, hunter-gatherers may even have questioned their continued existence in the face of momentous changes to the social landscape. It was these circumstances which inspired the production of some of the most vibrant and appealing rock art known anywhere in the world (Figs 1, 2 & 13).

These new insights compel us to seek new ways of thinking about the paintings, and especially to integrate information and patterns derived from the excavation deposits and from the paintings. We need to ask new questions of the data continually in order to deepen our understanding of hunter-gatherer history. For example, it would be useful to know whether shaded polychrome paintings are evenly distributed across the southeastern mountains and the KZN Drakensberg or whether they are concentrated in special and powerful places. Also, did the shamans of 2000 years ago obtain increased social status, as has been suggested for their nineteenth-century counterparts (e.g. Blundell 2004; Campbell 1987; Dowson 1998; Lewis-Williams 2003)?

Another issue that requires consideration is whether the social landscape of 2000 years ago was further complicated by the movement through the area, or close by, of pastoral peoples who may have introduced the early pottery and metal beads known from the archaeological record. Moreover, it would be beneficial to improve our understanding of the different types and proportions of paintings represented in the shaded polychrome and associated layers.

Pager (1973) has shown that shaded polychromes occur primarily in the southeastern mountains of southern Africa, though they are also found in the northern parts of South Africa, the Matopos Hills in Zimbabwe and the Tsodilo Hills in Botswana (Fig. 3). Although many new painted sites have been located and recorded throughout southern Africa during the last 35 years, it is unlikely that this overall distribution pattern has changed much, except for the recent discovery of nine shaded yellow polychrome eland paintings in Zimri's Rock Shelter in the Western Cape (Bassett 2001; Deacon 1998). This discovery, which is about 750 kilometres from the nearest known shaded paintings, raises interesting questions about whether the Zimri's shaded polychrome eland represent an independent development or whether there are as yet unrecognised linkages between these shaded paintings and those from the eastern part of South Africa. The latter intriguing possibility deserves further consideration.

It would also be useful to compare the circumstances surrounding the emergence and disappearance of the shaded polychrome paintings in the different areas. In this respect, Cooke (1969: 49) in the Zimbabwean context has linked the occurrence of shaded polychrome paintings with "the disturbed existence of the artist at the time" and has noted that his Style 4 paintings (in which the shaded paintings occur) contain "scenes too in which people of another ethnic group are seen to be carrying out work which can only be that of agricultural people" and further that there "is a very definite break in continuity" with the Phase 5 rock art paintings. According to Cooke (1969: 63), Phase 4 is "the final phase of prehistoric paintings, during which the painters had contact with Iron Age people". Elements of Cooke's arguments strongly resonate with

what I suggest in this paper and more detailed comparisons of these situations are likely to provide fruitful avenues for future research.

Finally, while I have concentrated on shaded polychromes, it is evident that we need to develop further the chronological frameworks that we have for rock art so that this resource can be used even more effectively to deepen our understanding of hunter-gatherer history in the KZN Drakensberg and the southeastern mountains. In essence, improved chronologies for the rock art will enable more effective integration of the information generated from rock art research and the excavation of deposits, with the ultimate goal of constructing a deeper and richer history for the region's original hunter-gatherer inhabitants.

#### DEDICATION AND ACKNOWLEDGEMENTS

I dedicate this paper to Tim Maggs and Tom Huffman for their substantial contribution to the construction of southern African precolonial history over a considerable period of time. I am particularly grateful to Tim for the opportunity that he gave me 30 years ago to work in the Drakensberg. It was the beginning of a very special journey, which is still ongoing, for a young Cape Town 'boyjie' – *Ngiyabonga!*

I thank Ann Macdonald, Gavin Whitelaw and Jeremy Hollmann for their editorial input which has made this a more readable paper than it would otherwise have been although I accept full responsibility for any flaws. Thanks are also due to Jannie Loubser and two anonymous referees for their useful comments on an earlier draft of the paper. Finally, I would like to acknowledge the significant contribution that Harald Pager made to the study of shaded polychrome paintings.

#### NOTES

- <sup>1</sup> This is an extended version of a paper presented at the XXII Valcamonica Symposium entitled 'Rock art in the framework of the Cultural Heritage of Humankind' (Mazel 2007b).
- <sup>2</sup> Mazel's rock shelter excavations in the northern KZN Drakensberg formed part of a larger excavation programme in the Thukela basin.

#### REFERENCES

- Aberle, D.F. 1959. The Prophet Dance and reactions to white contact. *Southwestern Journal of Anthropology* **15**: 74–83.
- Bassett, S.T. 2001. *Rock paintings of South Africa: revealing a legacy*. Cape Town: David Philip.
- Blundell, G. 2004. *Nqabayo's Nomansland: San rock art and the somatic past*. Uppsala: Uppsala University Press.
- Cable, J.H.C., Scott, K. & Carter, P.L. 1980 Excavations at Good Hope Shelter, Underberg District, Natal. *Annals of the Natal Museum* **24**: 1–34.
- Campbell, C. 1987. *Art in crisis: contact period rock art in the south-eastern mountains of southern Africa*. MSc dissertation, University of the Witwatersrand.
- Cooke, C.K. 1969. *Rock art of southern Africa*. Cape Town: Books of Africa.
- Deacon, H.J., Deacon, J. & Brooker, M. 1976. Four painted stone from Boomplaas Cave, Oudtshoorn District. *South African Archaeological Bulletin* **31**: 141–5.
- Deacon, J. 1998. *Some views on rock paintings in the Cederberg*. Cape Town: National Monuments Council.
- Dissanayake, E. 1995. *Homo aestheticus: where art comes from and why*. Washington: Washington University Press.
- Dowson T.A. 1998. Rain in Bushman belief, politics, and history: the rock-art of rain-making in the south-eastern mountains, southern Africa. In: C. Chippindale & P.S.C. Taçon, eds, *The Archaeology of Rock-Art*. Cambridge: Cambridge University Press, pp. 73–89.
- Estes, R.D. 1992. *The behavior guide to Africa's mammals: including hoofed mammals, carnivores, primates*. Berkeley: University of California Press.

- Guenther, M.G. 1975–76. The San trance dance: ritual and revitalization among the farm Bushmen of the Ghanzi District, Republic of Botswana. *Journal of the South West Africa Scientific Society* **30**: 45–53.
- Guenther, M.G. 1999. *Tricksters & trancers: Bushman religion and society*. Bloomington: Indiana University Press.
- Hall, S. 1994. Images of interaction: rock art and sequence in the Eastern Cape. In: T.A. Dowson & D. Lewis-Williams, eds, *Contested images: diversity in southern African rock art research*. Johannesburg: Witwatersrand University Press. pp: 61–82.
- Huffman, T.N. 1990. Broederstroom and the origins of cattle-keeping in southern Africa. *African Studies* **49**: 1–12.
- Huffman, T.N. 2001. The Central Cattle Pattern and interpreting the past. *Southern African Humanities* **13**: 19–35.
- Huffman, T. 2007. *Handbook to the Iron Age: the archaeology of pre-colonial farming in southern Africa*. Pietermaritzburg: University of KwaZulu-Natal Press.
- Kopytoff, I. 1987. *The African frontier: the reproduction of traditional African societies*. Bloomington: Indiana University Press.
- Lee, R.B. 1993. *The Dobe Ju/'hoansi*. Fort Worth: Harcourt Brace College Publishers.
- Lewis-Williams, J.D. 1981. *Believing and seeing: symbolic meanings in southern San rock paintings*. London: Academic Press.
- Lewis-Williams, J.D. 1987. A dream of eland: an unexplored component of San shamanism and rock art. *World Archaeology* **19**: 165–77.
- Lewis-Williams, J.D. 2002. *A cosmos in stone: interpreting religion and society through rock art*. Altamira Press: Walnut Creek, California.
- Lewis-Williams, J.D. 2003. *Images of mystery: rock art of the Drakensberg*. Cape Town: Double Storey.
- Lewis-Williams, J.D. & Dowson, T.A. 1992. *Rock paintings of the Natal Drakensberg*. Pietermaritzburg: University of Natal Press.
- Lewis-Williams, J.D. & Dowson, T.A. 2000. *Images of power: understanding San rock art*. Cape Town: Struik.
- Loubser, J. & Laurens, G. 1994. Depictions of domestic ungulates and shields: hunter/gatherers and agropastoralists in the Caledon River Valley Area. In: T.A. Dowson & [J.]D. Lewis-Williams, eds, *Contested images: diversity in southern African rock art research*. Johannesburg: Witwatersrand University Press. pp: 83–118.
- Maggs, T. & Ward, V. 1980. Driel Shelter: rescue at a Late Stone Age site on the Thukela River. *Annals of the Natal Museum* **24**: 35–70.
- Manhire, A., Parkington, J., Mazel, A.D. & Maggs, T. 1986. Cattle, sheep and horses: a review of domestic animals in the rock art of southern Africa. *South African Archaeological Society Goodwin Series* **5**: 22–30.
- Mason, A.Y. 1933. Rock paintings in the Cathkin Park area, Natal. *Bantu Studies* **7**: 131–58.
- Mazel, A.D. 1982. Distribution of painting themes in the Natal Drakensberg. *Annals of the Natal Museum* **25**: 67–82.
- Mazel, A.D. 1984. Diamond 1 and Clarke's Shelter: report on excavations in the northern Drakensberg, Natal, South Africa. *Annals of the Natal Museum* **26**: 25–70.
- Mazel, A.D. 1989. People making history: the last ten thousand years of hunter-gatherer communities in the Thukela Basin. *Natal Museum Journal of Humanities* **1**: 1–168.
- Mazel, A.D. 1990. Mhlwazini Cave: the excavation of late Holocene deposits in the northern Natal Drakensberg, Natal, South Africa. *Natal Museum Journal of Humanities* **2**: 95–133.
- Mazel, A.D. 1992a. Collingham Shelter: the excavation of late Holocene deposits, Natal, South Africa. *Natal Museum Journal of Humanities* **4**: 1–52.
- Mazel, A.D. 1992b. Gender and the hunter-gatherer archaeological record: a view from the Thukela Basin. *South African Archaeological Bulletin* **47**: 122–6.
- Mazel, A.D. 1992c. Early pottery from the eastern part of southern Africa. *South African Archaeological Bulletin* **47**: 3–7.
- Mazel, A.D. 1994. Dating the Collingham Shelter rock paintings. *Pictogram* **6**: 33–5.
- Mazel, A.D. 1998. Hunter-gatherers in the Thukela Basin during the last 1500 years, with special reference to hunter-gatherer/agriculturist relations. In: A. Bank, ed., *The proceedings of the KhoiSan Identities and Cultural Heritage Conference, held at the South African Museum, Cape Town, 12–16 July 1997*. Cape Town: Institute for Historical Research and Infosource cc., pp. 94–105.
- Mazel, A.D. 2007a. Dating of rock art in Africa. In: J. Deacon, ed., *African rock art: the future of Africa's past: proceedings of the 2004 International Rock Art Conference, Nairobi*. Nairobi: Trust for African Rock Art, pp. 118–27.

- Mazel, A.D. 2007b. Colour in the past: shaded polychromes in the hunter-gatherer history of the KZN Drakensberg, South Africa. In: E. Anati, ed., *Rock Art in the framework of the cultural heritage of humankind*. XXII Valcamonica Symposium. Valcamonica: CCSP, pp. 311–19.
- Mazel, A.D. 2009. Images in time: advances in the dating of Drakensberg rock art since the 1970s. In: P. Mitchell & B. Smith, eds, *The eland's people: new perspectives on the rock art of the Maloti/Drakensberg Bushmen. Essays in memory of Pat Vinnicombe*. Johannesburg: Wits University Press, pp. 81–96.
- Mazel, A.D. & Watchman, A.L. 1997. Accelerator radiocarbon dating of Natal Drakensberg paintings: results and implications. *Antiquity* 71: 445–9.
- Mazel, A.D. & Watchman, A.L. 2003. The dating of rock paintings in the Natal Drakensberg and the Biggarsberg, KwaZulu-Natal, South Africa. *Southern African Humanities* 15: 59–73.
- Mellars, P. 2005. The impossible coincidence: a single-species model for the origins of modern human behavior in Europe. *Evolutionary Anthropology* 14: 12–27.
- Mitchell, P. 1996. Prehistoric exchange and interaction in southeastern southern Africa: marine shells and ostrich eggshell. *African Archaeological Review* 13: 35–76.
- Mitchell, P. 2009. Hunter-gatherers and farmers: some implications of 1,800 years of interaction in the Maloti-Drakensberg region of southern Africa. In: K. Ikeya, H. Ogawa & P. Mitchell, eds, *Interactions between Hunter-Gatherers and Farmers: from Prehistory to Present*. Senri Ethnological Studies 73, pp. 15–46.
- Mitchell, P. & Whitelaw, G. 2005. The archaeology of southernmost Africa from c.2000 to the early 1800s: a review of recent research. *Journal of African History* 46: 209–41.
- Monteleone, S.A. & Woody, A. 1999. Changing light on the Cosos. *American Indian Rock Art* 25: 57–68.
- Moore, J.A. 1985. Forager/farmer interactions: information, social organization, and the frontier. In: S.W. Green & S.M. Perlman, eds, *The archaeology of frontiers and boundaries*. New York: Academic Press, 1985, pp. 93–112.
- Mulvaney, D.J. 1976. 'The chain of connection': the material evidence' In: N. Peterson, ed., *Tribes and boundaries in Australia*. Canberra: AIAS, pp. 72–94
- Ndlovu, N. 2005. *Incorporating indigenous management in rock art sites in KwaZulu-Natal*. MA dissertation, Rhodes University.
- Pager, H. 1971. *Ndedema: a documentation of the rock paintings of the Ndedema Gorge*. Graz: Akademische Druck.
- Pager, H. 1973. Shaded rock-paintings in the Republic of South Africa, Lesotho, Rhodesia and Botswana. *South African Archaeological Bulletin* 109–110: 39–46.
- Parkington, J. 1996. What is an eland? *N'ao* and the politics of age and sex in the paintings of the Western Cape. In: P. Skotness, ed., *Miscast: negotiating the presence of the Bushman*. Cape Town: UCT Press, pp. 281–9.
- Pearce, D. 2002. Changing men, changing eland: sequences in the rock paintings of Maclear District, Eastern Cape, South Africa. *American Indian Rock Art* 28: 129–38.
- Pearce, D. 2006. A comment on Swart's rock art sequences and use of the Harris Matrix in the Drakensberg. *Southern African Humanities* 18 (2): 173–7.
- Prins, F.E. 2000. Forgotten heirs: The archaeological colonialisation of the Southern San. In: I. Lilley, ed., *Native title and the transformation of archaeology in the postcolonial world*. Oceania Monograph 50. Sydney: University of Sydney, pp. 139–52.
- Prins, F.E. 2009. Secret San of the Drakensberg and their rock art legacy. *Critical Arts* 23 (2): 190–208.
- Russell, T. 1997. *Sequencing rock paintings: the application of the Harris Matrix to rock art at Main Caves North, Giant's Castle Game Reserve, KwaZulu-Natal*. BSc (Hons) dissertation, University of Cape Town.
- Russell, T. 2000. The application of the Harris Matrix to San rock art at Main Caves North, KwaZulu-Natal. *South African Archaeological Bulletin* 55: 60–70.
- Sadr, K. 2008. Invisible herders? The archaeology of Khoekhoe pastoralists. *Southern African Humanities* 20: 179–203.
- Sadr, K. & Sampson, G.C. 2006. Through thick and thin: early pottery in southern Africa. *Journal of African Archaeology* 4: 235–52.
- Singer, R. & Wymer, J. 1969. Radiocarbon date for two painted stones from a coastal cave in South Africa. *Nature* 224: 508–10.
- Smoak, G.E. 2006. *Ghost Dances and identity: prophetic religion and American Indian ethnogenesis in the nineteenth century*. Berkeley: University of California Press.
- Swart, J. 2004. Rock Art sequences in the KZN Drakensberg Park, South Africa. *Southern African Humanities* 16: 13–35.
- Swart, J. 2006. Harassing the Matrix: a reply to Pearce. *Southern African Humanities* 18 (2): 178–81.
- Swart, J. & Escott, B. 2003. The Cascades painted stones. *Southern African Humanities* 15: 75–89.

- Talma, A.S. & Vogel, J.C. 1993. A simplified approach to calibrating 14C dates. *Radiocarbon* **35** (2): 317–22.
- Thackeray, A.I. 1983. Dating the rock art of southern Africa. *South African Archaeological Society Goodwin Series* **4**: 21–6.
- Vinnicombe, P. 1976. *People of the Eland: rock paintings of the Drakensberg Bushmen as a reflection of their life and thought*. Pietermaritzburg: University of Natal Press.
- Walker, N.J. 1995. *Late Pleistocene and Holocene hunter-gatherers of the Matopos: an archaeological study of change and continuity in Zimbabwe*. Uppsala: Societas Archaeologica Uppsaliensis.
- Ward, V. 1997. A century of change: rock art deterioration in the Natal Drakensberg. *Natal Museum Journal of Humanities* **9**: 75–97.
- Ward, V. & Maggs, T. 1994. Changing appearances: a comparison between early copies and the present stage of rock paintings from the Natal Drakensberg as an indication of rock art deterioration. *Natal Museum Journal of Humanities* **6**: 153–78.
- Whitelaw, G. 1994. KwaGandaganda: Settlement patterns in the Natal Early Iron Age. *Natal Museum Journal of Humanities* **6**: 1–64.
- Whitelaw, G. 1994–95. Towards an Early Iron Age worldview: Some ideas from KwaZulu-Natal. *Azania* **29–30**: 37–50.
- Whitelaw, G. & Moon, M. 1996. The ceramics and distribution of pioneer agriculturists in KwaZulu-Natal. *Natal Museum Journal of Humanities* **8**: 53–79.

