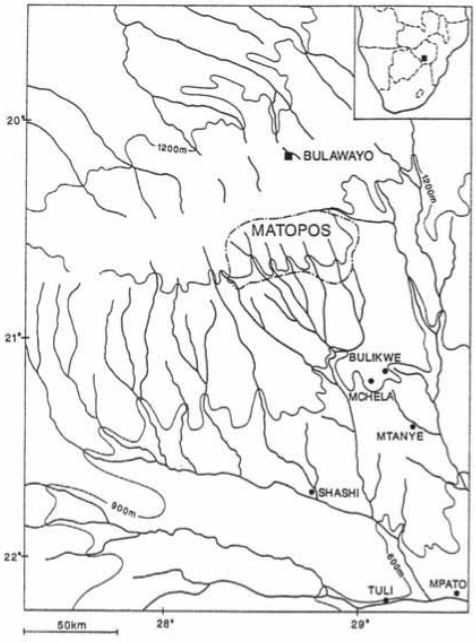
Nick Walker

The Rock Art of the Matobo Hills, Zimbabwe

The Matobo Hills or Matopos as it used to be called is a giant granite batholith in western Zimbabwe, spreading over more than 2000 km^2. The name alludes to the countless hills of which it comprises. Its northern, eastern and southern edges are well defined, as the hills give way abruptly to more open country here, but on the western side, the hills become smaller and more isolated, before finally ending in the Great Kalahari sandveld a few hundred kilometres away.



Map of South-west Zimbabwe, showing location of the Matobo. Inset: Southern Africa

The Setting

Topographically, the Matobo comprises a series of hills generally separated by near-parallel valleys where rivers have exploited natural joints, with those running NNW-SSE more dominant due to greater erosion here than with the east-west ones. Hills are more developed and steep-sided in the south where erosion has been more pronounced and are either primarily bare whalebacks, stacks of balancing rocks known as castle kopjes or intermediate combinations of both.

In keeping with this dense packing of narrow, sandy valleys and rocky outcrops, the vegetation consists of a mosaic of relatively small patches of several woodland and grassland habitats, separating dry stream beds and permanent pools from expanses of bare rock. The rich and diverse vegetation means that the Matobo is particularly abundant in wild fruits and over 60 edible species have been identified, of which the marula *(Sclerocarya birrea*) is one of the more important because of its kernels having a high calorific value. As a result there are large populations of baboons, vervet monkeys and other fruit-eaters.

The spatially restricted and patch-work nature of the vegetation and the rugged terrain means that the Matobo does not support the large mobile game so typical of the African savannah. Giraffe, kudu and impala make up only a fraction of the overall biomass in the Matopos Game Park compared with game reserves outside the

The Matobo is a jumble of narrow valleys and spectacular hills

Several wild fig species are particularly numerous in the Hills

Hyraxes basking in the morning sun

The Matobo has one of the highest concentrations of leopards in the world

hills, for example, where they might be 10 to 30 times as common. Buffalo are an interesting exception as they are in fact more numerous within the Matobo than outside. Instead, the main faunal biomass component lies in small territorial animals such as the small antelope, hares, rodents, reptiles and invertebrates. Dassies (hyraxes) are particularly plentiful. In keeping with this, the main predators are snakes, raptors and solitary cats, with the Matobo having some of the highest population densities of black mamba, black eagle and leopard in the world.

The Cultural History

The earliest known humans to live in the Matobo were members of the species Homo ergaster, but interestingly, they favoured hunting large animals and appear to have retained a savannah-type, hunting-foraging lifestyle, going after large game during their occasional visits to the Hills. Technologically this period is referred to as the Acheulean.

During Middle Stone Age times, people continued to visit the Matobo, but this appears to have been on a seasonal basis in autumn, judging by the fruit eaten. They appear to have had similar subsistence strategies to their predecessors, but there is good evidence that fruits such as marula were important in their diet. These early people remain poorly studied. Doubtless, populations fluctuated and at the height of the last glacial maximum 18000 years ago, the Matobo seems to have been without humans.

After about 13 000bp, as the climate ameliorated, people were certainly revisiting the Matobo and their numbers gradually built up thereafter. Technologically, this period is referred to as the Late Stone Age (LSA) and several innovative industrial stages and stylistic phases can be recognised. Initially, these people adopted the same seasonal strategy as previously, with large mobile bands spending autumn in the hills. With time as the population grew, they stayed longer and longer in the hills. By mid-Holocene times, people were living in the hills permanently. Interestingly, they appear to have adopted an aggregation/dispersal phase strategy with fixed territories by this time, each band apparently meeting up annually in a larger, central rock shelter in their home ranges during autumn, the time of plenty, when most fruits are ripe. Despite their poorer preservational properties, fruit were clearly a major component of the diet. Marula were now extremely important and people apparently stored the embryos for lean times of the year, along with other foods such as dried caterpillars and dried figs. They were also exploiting the smaller animals much more intensively than previously and dassies (hyraxes) and lizards were a major part of their protein diet, although this remained quite diverse. These animals are more easily trapped than hunted. Big game were certainly appreciably less significant when compared with

Figure Marula embryos and dried caterpillars were stored in small pits lined with grass and poisonous corm tunics and covered with stones to deter termites etc. Photograph of a 4800 year old pit with carbonised cordage and fruit remains

recent hunter-gatherer societies in the Kalahari.

A significant addition to the diet after about 2150bp was mutton, but gathering and hunting remained important. Another important adoption in their material culture at this time was pottery. This major economic adjustment is not obviously reflected in the rock art, unlike in Namibia where it has been suggested that depictions of fabulous human figures represent shamans who exploited their powers to acquire wealth. There are few if any definite depictions of sheep and cattle in the Matobo, although there are a few greyhound-like domestic dogs whose acquisition may then have preceded the adoption of a herding life-style. Nor is there a change in style, apart from a few possible depictions of handprints, unlike elsewhere in the subcontinent where a distinctive schematic herder art can be recognised.

It does however seem that this mixed hunting-herding lifestyle ended fairly abruptly, possibly by 300AD, when agro-pastoralist, Iron Age farmer sites become common. There is no obvious contact art, unlike in South Africa where centuries of interaction and conflict with black and white farmers are poignantly captured in the art. Nor are farmer paintings superimposed by hunter-gatherer images. It remains uncertain whether the Stone Age people were absorbed by the farmers, moved out of the Hills or died out, but there does seem to be a population increase in the Lowveld south of the Matobo Hills about this time, suggesting displacement into a region less favourable for farming.

Elsewhere, Khoi-speaking peoples, the descendants of LSA hunter-gatherers, survived until recently in the more arid parts of Zimbabwe and within 100 km west and south of the hills. They have not been studied in depth but they were probably related to the Matobo artists, whether by direct descent or through sharing a common ancestry. It appears that they were still painting in the 19th century, but have apparently lost most of their hunter-gatherer traditions today, although those to the west in Botswana have provided important information on ritual and religion. This has relevance to understanding the art, as will be explored below.

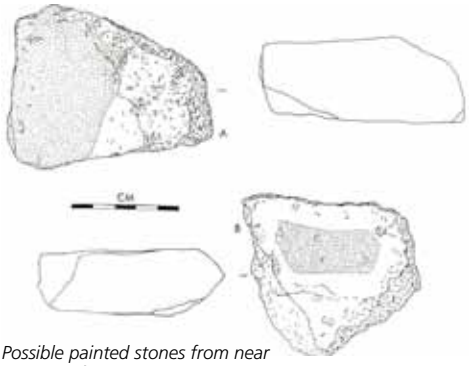
Middle Stone Age Art?

Ochre has been found in all prehistoric stages in the Matobo dating back to Acheulean times, but almost certainly as will be discussed later, all remaining parietal rock art dates back to the Later Stone Age and the last 13 thousand years. Nevertheless, a few enigmatic stones have been found on Middle Stone Age (MSA) open sites or in disturbed MSA contexts, that hint at an earlier art from. These include incised geometric patterns which are distinct from the naturalistic pictures painted during the Late Stone Age. An absence of stone artefacts with similar designs from the better researched LSA is also suggestive and they recall comparable designs in MSA levels at dated sites elsewhere in southern Africa. The designs recall the entoptics seen by shamans and it is feasible that these indicate shamanism at this early date. Unfortunately there are no absolute dates yet for this Upper Pleistocene entity known as the

This MSA artefact has an engraved design on it, but unfortunately came from a disturbed context where MSA tools were mixed with early LSA material. MSA people dug out hollows in the deposit at several sites, presumably to provide shelter from the cold weather, and these depressions were later filled up by LSA people, resulting in mixing of cultural material. Note that the lines are as weathered as the original (MSA) flake scars and so are unlikely to have been incised much later by LSA people on a relic that they collected

Bambata industry in which they have been found, except that it is beyond C14 dating with some of it probably between about 65000 and 85000 years old on the basis of similar dated industries elsewhere in the tropics.

Equally intriguing are a couple of stones with neat patches of red paint on them from near the top of the MSA level at one site. They are not obviously spalls from the shelter walls as they are quite thick. The one stone's edges in fact are quite worn as if it had been carried around or handled over a considerable period of time, implying some value. They may have originally formed parts of larger painted artefacts. If palettes, they may have been used to mix binding cements or even cosmetics using ochre and not for paint as such, but the paint patches on other more definite MSA ochre palettes are irregular. They might then have had symbolic intent, even though they lack any clear design or iconic content, although we cannot preclude the loss of a fugitive colour, for example white. Unfortunately undated, the associated industry, a non-descript, scraper-dominated late MSA, is at least 25 000 years old and thus apparently at least of comparable age to that postulated for portable stones with iconic paintings at a site in Namibia.



Possible painted stones from near the end of the MSA at Pomongwe

The Rock Paintings

Although some observers refer to rock engravings in the hills, only paintings have been seen by this writer here. Based on observations in the better-explored parts, there may be well over 3000 rock art sites in the Hills. This is probably only a fraction of the original art, as several sites only have minute traces of paint left on badly exfoliated panels, and this quantity hints at the importance of art. Two broad traditions can be recognised, with a naturalistic set created largely by fine lines and dating to the Stone Age and a less common but more variable schematic group made by farmers to be discussed further below.

Stone Age or hunter-gatherer paintings vary from a single figure through simple groups of related animals or humans to quite complex groups of figures that can be linked by style and content as forming a single painting. Sites range from having just single figures to several hundred images. Painted sites vary from overhangs to quite large natural rock shelters, the latter often with substantial deposits of human artefactual and other cultural waste. Paintings often only survive near the drip-line where they have been preserved by a sinter or salt encrustation left by the evaporating rainwater, with other pictures having exfoliated within the shelter or been washed away on more exposed surfaces. Any paintings that may have been in the open would have long since disappeared if of any antiquity. This along with the archaeological evidence and the lack of Iron Age farmer art (see below) under any Stone Age art implies a fair age for it. Certainly, the granite generally provides a more stable surface than the sandstone of the Lowveld or Drakensberg and few Matobo paintings are as clear as those in the latter areas which are demonstrably younger.

The main pigments in the LSA were provided by iron oxides, especially haematite and limonite. A wide range of reds, purples, oranges, browns and yellows can be seen, along with white, pink, grey and black, and certain colours and tones were favoured for specific images and animal species or even body parts. Colour selection carried deeper meaning. Whites were thus popular for vervet monkeys and the necks of some bichrome antelope. Trace studies suggest

that a titanium oxide was used for white, but experiments elsewhere indicate that bird droppings would have worked well. Black may have been provided by charcoal, but manganese oxide has also been identified in analyses of paint and was a possible pigment.

Most Stone Age paintings are monochrome, although in some instances certain colours may have disappeared. White in particular was a fugitive colour and some enigmatic figures are the result of the differential weathering of polychrome pictures. Outline figures and figures made up of complex lines or dashes also occur and many of these are not obviously incomplete, suggesting some value being attached to this technique. Of interest is a contrast bichrome style, in which certain parts of some species, for example the lower legs, dewlap, face and sometimes bellies of eland and kudu are often painted pure white, in stark contrast to the rest of the body which is usually a deep red; such creatures are frequently depicted next to red hunters also with white faces, necks and lower legs, suggesting a symbolic link between them. Then there are the polychromes involving several colours. Occasionally these have been carefully blended to produce shaded paintings but this is not as common as, for example, in the Drakensberg. Similarly, detail such as eyes or beadwork is rare in the Matobo.

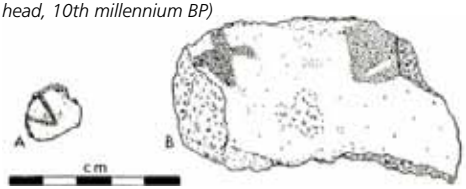
Although iron pigments do have a natural ability to bind with certain types of rock, it seems clear that in the Matobo, the majority of naturalistic paintings had a binding medium. A variety of plant juices would have been available, but elsewhere, blood has been recorded historically or ethnographically as an ingredient. A few reliable records also noted ritual in paint preparation. In some bichrome paintings, the white paint is being attacked by a fungus but not the red, suggesting different binding media for different pigments. Trace element studies have identified sulphur and potassium in some Matobo pictures, implying that egg was used. It seems that, as with the pigment itself, special media or ingredients, such as blood, may have been chosen or added because of their perceived magical or symbolic properties. Indeed, some red monochrome figures do not have a uniform tone, for example the bellies of humans and some amorphous shapes, perhaps due to the addition of a transparent liquid to the paint.

Very few of the actual tools used to make and apply paint have survived. This suggests that they favoured perishable materials. Experiments indicate that brushes made from feathers or hair would have worked very well and could have produced the very fine lines we see in the art. Antelope horn casings could have made fine receptacles for paint powder, and this has been historically documented elsewhere. A few tortoise carapaces have been excavated with traces of paint on the inside and these would have made excellent mortars to mix paint or store it in.

As far as I am aware, no one has analysed spalls of granite derived from the shelter walls in excavated MSA levels to see if any have traces of paint on them. Within LSA deposits, small spalls with traces of paint on them do date back over 12 000 years, but pieces with recognisable painted designs date from after 10 000 before the present.

As far as the age of the surviving art goes, spalling is largely related to temperature fluctuations and this might have been quite high during Ice Ages. Many shelters with long-sequence deposits often have high concentrations of spalls separating the MSA from the LSA levels (in part due to the apparent absence of culturally derived deposits at this time and not simply because of weathering), implying a long hiatus of many thousands of years. This makes it unlikely that much if any parietal art could

Rock spalls with traces of paintings from the LSA (A possible human limb, 5th millennium BP; B possible antelope head, 10th millennium BP)



date from before 13000 years ago. Monitoring of paintings through photography is interesting in that most painted panels show no deterioration through spalling at all over the past century. But the spalling rate is cyclic (once started it is fairly rapid but the freshly exposed surface is then much more stable until it too becomes unstable again and the process repeats itself) and quite variable between sites and even within a single site, which explains the patchiness of the paintings within one shelter. Assessment of the density and thickness of spalls in some deposits suggests that these cycles could last tens of thousands years, at least during the Holocene in some sites, but are much more rapid at others. Shelters with only a few fragmented paintings have relatively fresh-looking surfaces while well-painted panels often have dull surfaces along with faded paintings. What then is of interest is that a few, well-weathered paintings survive at one site which was effectively abandoned about 8500 years ago while a well-painted site shows no sign of habitation over the last 6000 years. Along with the fact that this tradition ended about 1800 years ago, this does suggest that much of the surviving art is many thousands of years old.

One interesting practice was retouching figures or even adding more to a group at a later stage, as suggested on the basis of differences in weathering, style or ability. This suggests that pictures had an enduring function or life, as indeed implied by the use of binding media. As style or design type also had special meaning, studies on stylistic evolution of the art on the basis of superposition sequences need to be handled with care; in fact, artists also deliberately used palimpsest to convey further meaning, or even change it, in a picture. The art was thus dynamic. Nevertheless, the lower figures are more likely to be monochrome and later ones bichrome or polychrome at sites with long occupational histories. On the other hand, as noted, different pigments do not all have the same preservational properties and multicoloured pictures may have had a long history. Intriguingly, the oldest spalls with recognisable detail appear to be of animals and the youngest of humans, suggesting a shift in theme and supporting an impression created by a study of superpositioning and state of weathering. However, numbers of painted spalls with clear detail are few and more evidence is needed.

Farmer Art

The art can be divided into two broad traditions. By far the bulk of the art belongs to the naturalistic fine-line tradition which can be linked with LSA hunter-gatherers. This art deals largely with wild animals, especially the large bovids and herbivores that abound (or abounded) on the African plains, as well as humans, whose material culture as depicted included skirts, bows, arrows, digging sticks, bags and so on – much what one expect of a hunter-gatherer group.

The other so-called Iron Age tradition is more variable but comprises schematic (i.e. less naturalistically accurate), abstract and geometric elements. This can be associated with farmers. Certainly, these are always on and thus later than the naturalistic figures when in superposition or occur in shelters where the naturalistic art has often weathered away almost completely. They also tend to be smeared on thickly by hand or finger, or scribbled on in dry or chalky form. They are mainly white but some are red or black. They include domestic animals like goats and cattle. Humans are stylised and usually shown in frontal position. Some paintings are simply copies of the Stone Age figures. Some paintings, for example elephants, can be linked with rain-making and others, such as lizards, with initiation.

Some Stone Age paintings have been chipped to remove the paint for magic purposes by Iron Age people. These include the horns of a rhinoceros in one site.

The Hunter-gatherer Paintings

Much of the art occurs in living sites but in a few cases it occurs in uninhabitable overhangs or in hidden shelters with no sign of any other human activity. A few are even

Farmer or Iron Age art is often pasted on by finger, with white a favourite medium. It includes domestic animals like cattle and goats. Note how the farmer art here is painted on both fresh and weathered surfaces, while a few faint Stone Age figures remain on the older surface only

The grace and vitality of these giraffe and kudu are successfully captured at Nswatugi Cave. Note the red line down the giraffe backs

high up on narrow, almost inaccessible ledges. This suggests that although much of it was for public consumption, some may have required a more remote, private or secret setting. Several of the more complex pictures thus occur in the latter sites.

A great range of animals are depicted in the naturalistic tradition. Mammals and especially large herbivores were mainly painted, with antelope particularly popular. Animals are often depicted in rows, at times in clusters in a variety of postures, occasionally with young, yet at other times stand motionless in complex compositions.

Specially favoured was the kudu and this antelope was clearly important to the artists, in fact also throughout Zimbabwe and in adjacent eastern Botswana and northern South Africa. It is often painted with hunters and sometimes, along with eland, painted in the same contrast-bichrome style as some of them, and may well have been linked with beliefs about hunting. Often they are depicted standing still, as if paralyzed, with the hair on the neck depicted erect, a sign of stress and possibly dying. Others are painted gracefully running across the rock panel, sometimes associated with women. Kudu are not common in the Matobo nor were they in the LSA diet

Painting of a kudu falsely imposed on a polychrome shape with a zigzag design with pendant white 'streamers'. Possible feline hind legs protrude from the kudu rear. Note the human feet and facial detail of the kudu, as well as the lines and bipedal form below it with hooves. It is highly unlikely that this sort of complex picture can ever be fully interpreted.

and clearly had symbolic content – as did they among some eastern San where they featured in marriage rituals until recently. The successful killing of a kudu basically concluded the marriage contract and it is perhaps this sort of symbolism that the art is expressing.

A particularly important animal in the art was the giraffe, although once again this is not well suited to the rocky terrain and hasn't been identified in LSA food remains in the hills. As with the kudu, they were nevertheless well adapted to the open Acacia woodland just outside the Matobo. These animals are often depicted large in central and prominent positions in the bigger living sites and in many instances, the artist would have required some sort of ladder to paint them. In these instances, they were usually painted in polychrome colours with yellow, orange, brown and/or white bodies. Often the spinal column and forehead had been carefully emphasised in red. A lot of care was given to the reticulation patterns which are not always naturalistic. These animals feature in communal healing dances in the Kalahari today and their depiction may thus have been associated with concepts about social groups.

On the other hand, many of the monochrome giraffe are depicted as if dying, with lowered head and erect mane-hair, and juxtaposed next to curious shapes or enigmatic figures. A few have lines from the nose/mouth or chest, possibly depicting blood. Giraffes featured recently in boys' first kill rites of passage among the eastern Botswana San. Some depictions of humans, the dominant figure in complex groups, painted in the contrast bichrome style have giraffe heads. The lack of these animals in the food remains clearly indicates that the art is not primarily about hunting magic.

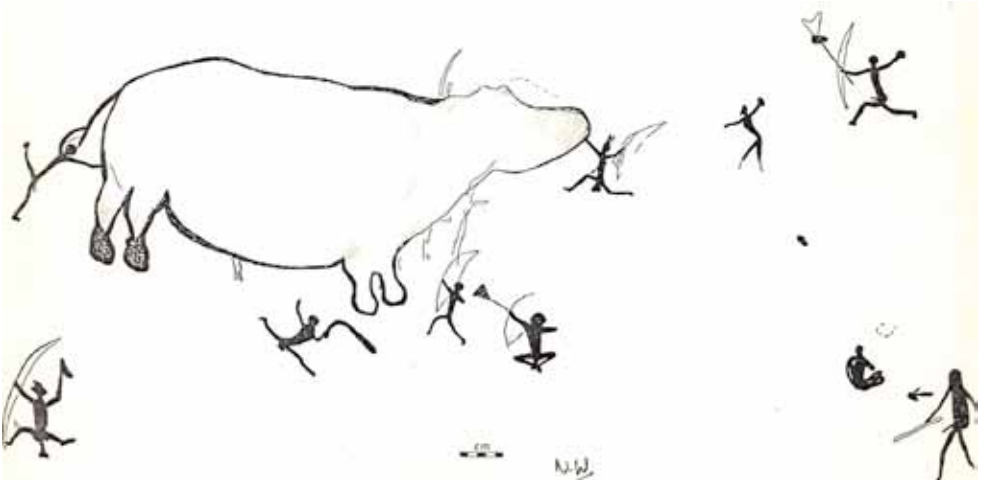
Impala and small antelope like duiker were also regularly depicted, often juxtaposed next to complex figures. Curiously despite their relative abundance in the Hills, buffalo were seldom painted and this might reflect negative beliefs attached to them. One buffalo is painted inverted which, it has been suggested, signifies a dead animal. Hunters are interacting with it and it has been interpreted as being dismembered, the only such painting seen in the Matobo. The other definite depiction is one of only two plausible actual hunting paintings in

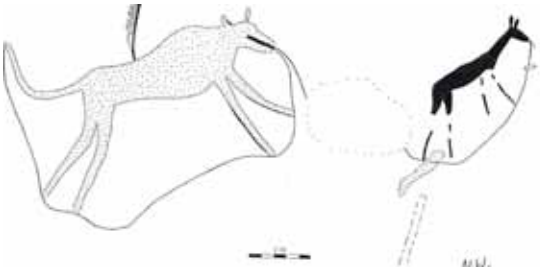
Painting of a giraffe with lowered head, a motionless impala, possible plants and stippling juxtaposed with resting hunters. Note the possible bleeding chest of the giraffe. Unfortunately the left part of this painting has weathered away making interpretation difficult

Painting of a giraffe-headed man with a possible swollen white neck and attachments in the small of the back, and holding a probable tranchet arrow and bow, albeit the latter in an unlikely position. A bichrome human figure crouches on a wavy line motif composed of dashes, with several seated clapping women and other figures. Unfortunately, the left part of the panel has disappeared, making interpretation difficult, a problem with most paintings in the Matobo

the hills. This remarkable painting involves a possible buffalo-hippo conflation, with the body painted in a dilute paint and with unusual humans in attendance, some with animal-like ears or thick necks and archers with arrows with unrealistically large projectile heads or people holding curved oval or round objects, one a possible sling.

This unnaturally fat bull has strange lines on its chest and neck. Most of the humans have trance-related attributes (note that the therianthrope in the lower left corner in fact occurs two meters to the left and has been moved into the composition to save space, but is clearly part of it as there are no other figures on this panel). The painting may be invoking concepts about potency rather than being a literal scene.





Remains of a painting of an orange leopard with a plume-like attachment on its back linked by the mouth or nose to a small antelope by a thin red line (part of the line has exfoliated away). Note the human-like rear legs of the leopard and the enigmatic orange and white patches of paint that are sometimes juxtaposed next to paintings, expressing deeper meaning. Felines were a popular medium for shamans among recent San and this picture may relate to hunting

The other plausible hunting scene is of a lion with five claws per paw, hair on end with lines from the nose/mouth, which might indicate bleeding, as well as lines near the chest. Again several of the associated archers have arrows with implausibly large tranchet heads.

Felines are regularly depicted, especially leopards and these often have human-like legs. Other occasional animals do have lines attached to their bodies that may be arrows, but there are no hunters shooting at them. Traditionally, Bushmen hunters do not talk about their prey lest the animal escape before the poison has achieved its purpose, which might in part explain the dearth of realistic hunting pictures.

Apart from the small bovids, small animals are actually very rare in the art, with the exception of a few hares and vervet monkeys, despite their being important in the diet. No obvious dassies are illustrated. Birds are not common but include ostriches, storks and game birds, while small birds sometimes are placed on the shoulders of human-like figures and raptors are associated with lines. Fish are shown unnaturally juxtaposed with humans, animals and enigmatic elements. Definite invertebrates are very rare although flying termites abound at a few sites.

Trees, sometimes complete with roots (usually three) and at other times with a convex base, were also painted. One has a human foot-like base, other bases recall fish tails. Some reed or plant-like clusters of dashes may have had other meaning, with some branches recalling the forked heads of arrows.

An intriguing group are conflated animals made up of two or more species. Snakes thus often have antelope or carnivore heads and in some instances are several meters long, painted in white with a wavy red outline back, and the dominant figures on large panels. These have relatively small humans and strange creatures

Painting of plant (note the three-pronged roots) and insects (?) and other faded figures

A curious conflated creature (zebra-feline?) associated with sausage-shaped figures with human heads

on their backs and some have humans holding on to the head or tail of the creature, just as in the so-called 'buffalo hunt' already mentioned.

Humans are more common than animals. They are normally depicted relatively slender, but a few are very thickset and others very thin. Most are between about 20 and 30 cm in length but a few are only a couple of centimetres tall and others well over 50 cm, occasionally life-size. Usually depicted in profile but with shoulders shown twisted frontally, males are occasionally shown in frontal view frequently squatting and in unnatural contexts.

Men outnumber women, while children are rare. Women are often shown with pronounced buttocks and thick thighs. Many of the humans however are not clearly male or female, but the gracile form and frequent association with bows and arrows imply that most are male. The depiction of the erect penis thus may have invoked concepts about fertility or potency and many are shown with appendages, sometimes quite elaborate. The lack of the male organ may well then be indicating an alternative, non-potent state. Large male figures are often depicted stiff-like with broad shoulders, small heads and tails, a group that is never depicted with bows and arrows.

The art lacks portraiture but groups of humans are shown in a great range of postures or holding different artefacts or having other distinct detail, suggesting that the artist might be identifying real individuals. Group sizes are also consistent with social groups – hunting parties, bands - among recent San. It is thus possible that the art does capture the group and personal identity but a fear of imitative magic precluded the distinct portrayal of individuals.

The art is quite informative about material culture and in addition to bows and quivers (with men) and digging sticks (women), human figures carry bags and women are usually shown with aprons and occasionally cloaks. Possible trumpets and flutes being played were also depicted (Elspeth Parry suggests that these might be elongated noses, recalling one of the sensations experienced during trance). Other attributes are less obviously material objects. Swellings or attachments on the neck, back or waist, and lines from or attachments to the neck/shoulder or head may have had other meaning.

As with the animals, humans occur singly or in small groups but the most intriguing are complex compositions often with them interacting with animals. These have been variously interpreted as dancing or ceremonial scenes, processions of hunters or mixed groups, resting people, sometimes enclosed in curved lines suggestive of rock shelters or simple huts, fights between groups or one person being attacked by several hunters or at least having apparent arrows protruding from their bodies and people apparently

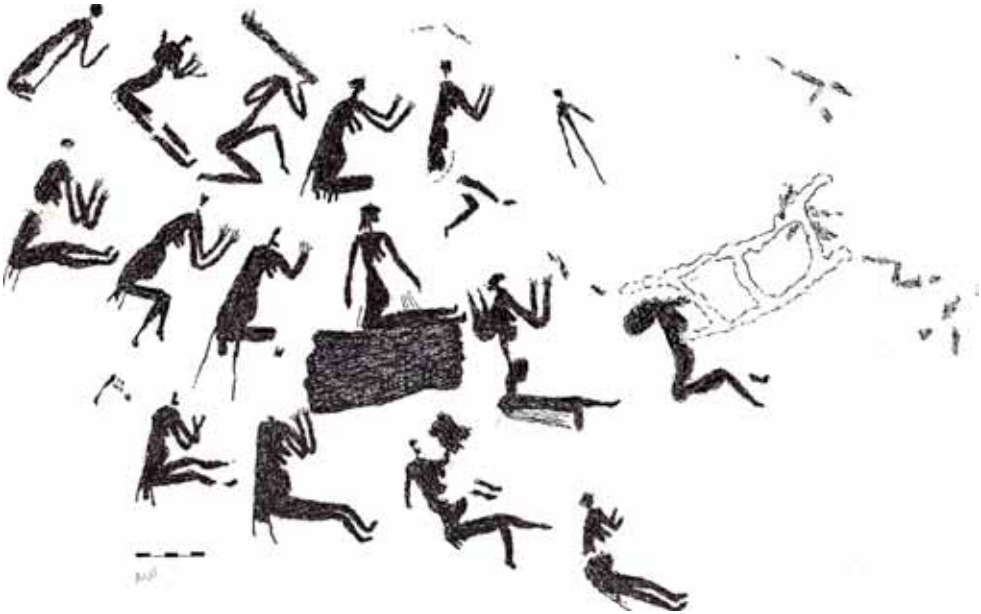
Processions of hunters were a popular theme. Note the bar shown across the penises, while one hunter has animal ears

carrying bundles on their heads. Some oval shapes have heads on one or both ends.

Finally there are several enigmatic shapes which are difficult to interpret. Some of these appear to be zoomorphic or cloud-like with corrugated upper surfaces, often in dominant positions on panels.

One very common and standardised category termed formlings or 'Frobenius sausages', after the anthropologist who coined that term, comprises a series of narrow ovals, usually with neat rows of dots within each, mainly vertically or occasionally horizontally stacked and rarely sloped. They have been called a great number of things, including fields, boulders and even space ships! More plausible is that they are the nests of hymenoptera, for example bee-

Painting mainly depicting women with rare finger detail surrounding a central woman with pendant lines seated on a possible formling (see text) motif. Unusually so, there are no digging sticks with these women, while the one definite male touches a cylindrical object, probably a quiver (note the raised knee, a recurrent theme with unknown meaning). During the healing dance, San women clap with open fingers. Note the white Iron Age geometric figure placed on the earlier painting



Painting showing females and a raptor entwined with lines, with attendant female kudu (note the raised tails which matches one on a human figures). Several of the humans adopt trance postures and have lines from the breasts and armpits.

Although it is tempting to interpret this literally as a conflict scene, with some of the fighters apparently impaled with arrows or bleeding, the white face and finger detail on the one upper figure and the squatting figure in the centre, and indeed the other associated figures which have no direct bearing on the battle, introduce a cautionary note

Painting of a leopard (with human-like rear legs) superimposed on a formling (polychrome oval motif with dots) which is linked by lines to a human figure with similar ovals visible in its torso. Note also the open mouth and eye of the leopard (a chip of paint has been removed from its face possibly recently for ritual purposes). The line with the wedge-shaped end is similar to arrows that are often depicted with large heads

hives or wasp nests, and Siyakha Mguni has made a strong case that they are termite nests. They may be conceptual or based on visionary experiences – dot swarms are 'seen' during trance. They seem to invoke concepts about potency. Peter Garlake suggests that they are based on the human abdominal organs, the seat of potency in shamans. They are often large, highly elaborate polychrome images placed in central and prominent positions on panels that would have taken hours to paint and so were clearly important. In many instances, the artists would have required some sort of ladder to paint them. They may have had a social significance, given the rough correlation of the number of ovals with the size of the associated living site and thus number of people the shelter could accommodate. Rare variants are stacked squares or polygons without dots, but sometimes with lines, occasionally enclosed in a circular line, in one instance below a semi-circular curve of several lines with spiky protuberances above. These paintings are frequently associated with humans or animals in recurrent postures, for example a supine human, at times with one raised knee, or a crouching person.

Other enigmatic paintings include geometric patterns and patches of stipple or dashes, the latter feasibly swarms of insects such as bees or termites, although wings and legs are not shown, and so possibly entoptics as seen by shamans. Some of these patches form zoomorphic shapes while others are stream- or cloud-like. A few of these patches are contained within a line and one repeated design is like a figure 8 on its side. Another motif has a thick red wavy or spiky line with white lines descending from it with curious creatures superimposed on these lines or with human-like figures crouching on or running along it. They thus recall the conflated snakes.

Some shaded polymorphic shapes are surrounded by sets of thin parallel lines, usually four, occasionally two, sometimes

Painting of a formling placed up against a natural crack in the rock as if to insinuate that it continues behind the rock face or is emerging from or entering the rock. Note the white hunters with hare-like ears superimposed on it. Shamans perceived the rock shelter as a gateway to the spirit world and they could penetrate this 'veil' in a state of altered consciousness

enveloping animal- or human-like forms, and are often associated with strange shaped humans in exaggerated, dramatic postures. In other instances, humans seemingly hold lines.

The Meaning of the LSA Art

Archaeologists and art historians have long puzzled over the purpose of this art. Richard Hall, the first researcher of note in the Matobo favoured a totemic explanation but thought that it was inspired by several factors. Some early students understood that it was essentially religious. Leo Frobenius favoured a mythological interpretation, and he mistakenly tried to use the art to illustrate farmer traditions about funerary practice. Other early recorders in the Matobo such as Neville Jones were more interested in using it to build up chronological sequences to match the stratigraphic culture histories emerging from their excavations. Miles Burkitt thought that the paintings were possibly about hunting magic but were more probably simply decorative. By

the 1960s the 'art for art's sake' hypothesis had become fashionable, as championed by for example Cran Cooke, a prolific researcher in the Matobo, but it was only when scholars adopted a more objective, in-depth approach, initially using statistics, investigating the more enigmatic elements of the art and using San ethnography that it became accepted that the art was indeed essentially religious. This perspective is favoured by this author. In more recent research, Elspeth Parry's in-depth description of the Matobo art, aided by fine illustrations by Janet Duff, has adopted a more cautious non-committal approach. Siyakha Mguni has studied the formlings in some detail and concluded that they are based on termitaria. There has however been little serious research into the prehistory of the Matopos for some time now.

Key to the understanding of the southern African rock art have been David Lewis-Williams working in South Africa, especially in the Drakensberg, and Peter Garlake in north-east Zimbabwe, although they readily included the Matobo in their models. Lewis-Williams' insightful work has suggested that we can talk about a Pan-San Cognitive System which sees all the fine-line paintings south of the Zambesi and Cunene Rivers as essentially illustrating the visions and experiences of shamans, in which they use the supernatural energy of eland in particular in their trance expeditions.

Garlake on the other hand sees the art as addressing a wider set of social issues, not just religion, with a special emphasis on potency. It needs to be emphasised that Garlake's research is based on Mashonaland art, whereas the hunter-gatherer art of Zimbabwe can be divided into several distinct regions, including areas where petroglyphs were favoured. In Mashonaland, despite many similarities with the Matobo, there are thus very few giraffe and impala, while elephant, zebra and buffalo are more common. The elephant seems to replace the giraffe as a major symbol, but along with the buffalo, it does occur in several imaginary 'hunt' pictures. Depictions of line motifs are less common and the formlings or oval designs and other forms fewer and less standardised, while the adjunct detail, what Garlake calls emblems, on human figures also differs. Other depictions such as the so-called 'mother-goddesses' or humans with distended bellies are very much a Mashonaland theme and less developed in the Matobo, but these differences seem to be more variations in preferred symbol and expression rather than very different underlying concepts.

The success of Lewis-Williams and Garlake is largely due to their trying to understand the art from the artists' perspective. This meant studying the ethnography of the descendants of the artists or their relatives. This included the San from the northern Cape whose world view was captured in the 19th century records of early linguists but also the recent San or Bushmen of the Kalahari.

There are problems in this approach, namely the fact that the Matobo art is not recent and has doubtless evolved over the millennia. Many of the modern symbols, beliefs and practices of the San differ among themselves and are dynamic and have changed in recent years; there is thus a danger in placing the art in an ahistorical, non-changing framework, imposing modern concepts on a long-forgotten society.

Second, the Kalahari San have been in contact with and influenced by other cultures for centuries. It seems that the bulk of the surviving Drakensberg art was created in a world that included farmers and that the art may have been partly adapted to accommodate them, whether as an opportunity, for example in being paid to make rain, or as a threat, possibly to help resolve conflicts over land and natural resources. This is unlikely to be the scenario in the Matobo, which is essentially pre-contact as noted.

More critically, the San do not paint today. The trance dance is central to their religion, where shamans are or were major communicators with the other world and could influence events through supernatural interventions. Today this is mainly about healing (there is a lot of emotional stress and uncertainty in a marginalised society trying to adapt to a new economic reality

imposed on them) but in the past it included rain-making, finding game, checking on relatives, mediating with God over crises and so on. It seems likely that the production and use of graphic art played a more central role in ritual in the past and indeed it was probably a permanent visual repository of ideas and a passive source of inspiration, something not possible in active dance performance.

Nevertheless, for the first time in a while, a modern Eurocentric perspective has been abandoned in favour of the world view of hunter-gatherers, admittedly more historically so but still priding themselves as such, with some Cape and eastern Botswana San being the direct descendants of the artists of the rocks.

From their traditions and beliefs, it is clear that certain wild animals were highly important conceptually and symbolically in their religious practices and mythology. The religious and shamanist model immediately makes sense in explaining the favouring of certain animal species in the art. Giraffe for example were esteemed by recent hunter-gatherers because of the large amount of fat on them and the death of a giraffe released a supernatural energy that could be harnessed. This could be used to facilitate achieving a state of trance, during which the spirits of shamans could escape their bodies and go on out-of-body travel to carry out their magic deeds. The strong co-variation of giraffe with large living sites suggests that they may also have had some sort of group identification status – a form of totemism was practised by the nearby San in eastern Botswana quite recently but this may well have been acquired from neighbouring black farmers. Animals like the eland and kudu featured in recent puberty rites, both female and male, and so were probably symbolically important and may have played a role in facilitating social relations in the past. Of course these values may have changed but we can understand how selected species from the animal world were used metaphorically to articulate ideas on relationships and social issues.

Secondly, a large number of paintings have enigmatic elements in them that are best explained through shamanism. For example, some animals have human attributes or are conflations of different animals and several humans have animal features, for example antelope horns. These are here called zoomorphs and therianthropes respectively. Shamans state that during trance they metamorphose into favourite creatures, ones that they visualise and then become, whereafter they can go on magic expeditions, such as hunting in lion form. Previous explanations such as masks seem less plausible as the San do not make elaborate headdresses. Indeed, some felines are depicted with human-like stances or five 'fingers'. Alternatively or additionally, some of these extraordinary creatures could be visions of these remarkable creatures seen in the other world or even of God.

A variety of therianthropic figures are illustrated, including humans with giraffe, impala, tsessebe and female kudu heads. Stiff, elongated, wedge-shaped humans frequently have tails and prognathous heads, implying that baboons or vervet monkeys may have been common mediums; the tails however are more vervet-like. Women occasionally have fish tails or stork-like bodies, but not herbivore or carnivore attributes, while they appear less frequently as therianthropes than men, suggesting different gender roles in ritual. Even though there may be fewer transformed humans in the art than in the Drakensberg, these figures regularly occur in pictures with ordinary humans, making it likely that there were fewer practising shamans in the Matobo bands. Often shaman figures are distinguished by size differences suggesting that some were more senior than others.

In the Drakensberg, therianthropes are apparently more common, more standardised in size and dominated by only a few forms, namely eland and rhebuck. Here a single animal, the eland, dominates the art both in numbers and in attention to detail and so clearly was ritually extremely important. In the Matobo however, eland are not particularly numerous, although there is a hint that they may have been previously more important in the earlier art, and we have several animals that were popular

themes. Again, there is a greater variety of animal species appearing in the therianthropes, suggesting greater idiosyncrasy. This would suggest that the eland was polysemic in the Drakensberg, but many of its values may have been divided among several different species in the Matopos. Of course this could also be due to the greater apparent time depth of the Matopos art, with different species waxing and waning in ritual popularity over time.

Furthermore, shamans adopt certain postures to help acquire supernatural energy or to facilitate the metamorphosis to altered states of consciousness and indeed control the pain being experienced. People kneeling, crouching, squatting, bending or falling over, or with arms stretched behind their backs or hands on their waists or heads are stances adopted during early stages of trance. These poses are regularly found in the art.

Supernatural energy occurs in most people albeit in varying amounts, but it is possible for experienced shamans to 'shoot' arrows of extra potency into novices and this usually enters in the small of the back. Some of the so-called murder and battle and even hunt scenes may actually be depictions of humans acquiring potency. When entering trance, the supernatural potency starts boiling in the belly and moves up the spine before exploding in the head. The sensations that they feel include their bodies, limbs or necks etc becoming elongated and they then see geometric entoptics. Later they feel themselves transforming into animals and each shaman usually has his, or occasionally her, favourite animal medium which is attracted to the trance dance. Depictions of strange feather-like appendages or bulges in the small of the back, the neck or shoulder and top of the head can be explained respectively by beliefs of how supernatural energy is acquired, where sickness can be expelled from the body or how the spirit leaves the body during trance respectively.

Shamans also sweat profusely and the sweat from the armpits is regarded as especially potent, and paintings of lines from the armpits might refer to this. Some figures show the mouth open and this may illustrate sensations of gasping for breath and likening this to drowning. Often the shamans bleed from the nose or have a large mucus discharge from the nose or mouth and these could explain lines drawn from the faces.

Many of the strange lines on which people and animals stand, squat, crawl or which they hold etc or by which they are linked may well have been the visualised paranormal pathways to the other world, if not bolts of supernatural power that only shamans could see and use to control things. Shamans describe seeing a network of lines or grids when in deep trance and they say

Painting of polymorphic shape semi-enclosed by a set of four lines, with wedge-shaped humans, kudu and fish

Painting of a 5 meter long animal-headed snake (possibly a hyena-python conflation in this instance), associated with wedge-shaped humans and giraffe. Shamans describe the out-of-body journey as being like travelling along a corrugated or undulating road and possibly the winding python was an apt metaphor and indeed vehicle as it travels through the earth and water.

that they can travel through the sky (fly or climb), ground (run along or tunnel through) or under water (swim) along these pathways on their magical journeys. These supernatural pathways are often described as undulating or corrugated, as are some of the line depictions. God also lowers supernatural ropes up which shamans can climb to plead with him. Unnatural associations of birds, snakes or fish with humans thus are plausible metaphors of trance. Shamans also describe shooting arrows of potency or bolts of energy from their fingers into novices, which could explain some of these pictures.

Many of the animals stand quite stiffly, sometimes with lowered head, as if either dead or paralyzed. The hair on the neck is often erect and some bleed from the nose as if dying. They are juxtaposed next to hunters or other figures. Indeed one of the metaphors for trance is dying and so it is possible that these depict the metamorphosis of shamans into their animal mediums for their magic expeditions. Alternatively they depict the hunt – a hunter enacts the death of his prey to facilitate its death. He is thus not allowed to urinate, lest the poison in the animal also escapes. This might explain the bar across the penis – the hunter is retaining his potency. In this regard shamans describe their supernatural potency as a form of sexual energy, which might explain why some men are depicted with erect penises. Other apparent elaborate attachments to the penis may be expressing concepts of potent states – there are similar 'attachments' to the armpits and waist.

Recognising trance elements does not in itself explain why individual images were painted. To be sure, some elements such as pictures with fish could be easily linked with rain-making and some bloated creatures identified as the rain-animal, while a few pictures could be seen as curing, for example touching a seated person's back or dancing around a seated person, but these make

This line-polymorph shows humans painted with diluted paint in the bellies. Several of these polymorphic shapes have humans in them in trance-related postures. Note the lines from the one human's armpits and the lines from the females' buttocks, possibly indicating supernatural energy as sweat and menstrual blood in potent persons

up only a few of the many pictures. The ethnographically recorded use of specific ingredients in the paint like blood from potent animals suggests that some paintings had magical properties.

The art is essentially about animals and men and so it would appear that men were mainly the artists and that shamanism was primarily, but not exclusively, a male realm. Women however had distinctive rituals involving birds, such as storks, as well as fish.

What seems undisputed then is that the prehistoric artists certainly knew about and practiced trance and shamanism.

In conclusion, it seems that the art encompassed concepts of potency and fertility, it assisted in the transformation of shamans into superhumans capable of influencing natural and social events and helped the people articulate and explore complex religious concepts. It was apparently largely created and thus controlled by men, considering the emphasis on male activities and the male world of the hunter and big game, and thereby probably helped compensate the more significant female role in subsistence, given the dominance of plant food in the diet. Above all, it seems to have played a major role in creating a sense of order and purpose in life.

At this stage it is not certain why the Stone Age lifestyle ended so abruptly and what the fate of the artists was. Interestingly, the continuities in style and content with the Lowveld, and indeed the increase in Late Stone Age sites some 2000 years ago

Some humans have cloud-like forms around their heads. Others have antelope-headed tails or bulges on their backs. These might refer to concepts about escaping potency or the acquisition or activation of it

Here an eland stands motionless below two therianthropes, one of whom seems to be emerging from an animal body, while a human seems to emerge from (or enter) its body in the small of the back

there, suggest that a southward displacement from the Matopos was possible. A lot more research is needed on this fascinating subject and area.

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