A condition assessment of the prehistoric art from the Bushman Paradise Cave, Groβe Spitzkoppe, Namibia.

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Abstract

The main objective of this study was to assess the overall physical state of the prehistoric rock paintings of the Spitzkoppe. This article presents an evaluation of the condition of the rock art at the Bushman Paradise site. Ideally, a condition survey should be carried out periodically and be used as a monitoring and evaluation tool. This article is a contribution to ideas and methods that can be used to develop integrated and informed conservation strategies for rock art sites in Namibia. It identifies and classifies the causes of deterioration or damage of the rock art at the Bushman Paradise. We argue that systematic documentation is crucial for site management purposes because it is from detailed documentation that a statement of significance of sites can be generated. We conclude from the analysis that anthropogenic causes of deterioration at the Bushman Paradise outweigh natural causes. We conclude by proposing site specific conservation interventions that can be replicated at other sites of similar nature in the Spitzkoppe and Namibia in general.

Introduction

The rock art of the Spitzkoppe has been damaged by several factors which include both natural and anthropogenic causes. Increased tourism activities in the area have added to the apprehension among heritage managers concerning the preservation of the rock art and its associated archaeology. The destruction of the rock art is, however, not a recent phenomenon. As early as 1990 Kinahan noted that rock art was damaged by "uninformed visitors" (Kinahan, 1990, p. 2). The National Heritage Council of Namibia decided to examine the condition of the rock art sites, develop an inventory of the motifs and institute site management and conservation plans to mitigate any further deterioration and damage to the rock art.

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The main objective of the site pathology/condition survey was to assess the overall status of the rock paintings of the Spitzkoppe. It must be noted from the onset that the field work did not assess all the known and unknown rock art sites in the Spitzkoppe. The time frame and resources allocated for the project could not allow for such an ambitious project. Instead, sites that are frequently visited by tourists in the Große Spitzkoppe were evaluated and this article is based on only one of the sites - the Bushman Paradise.

The history of archaeological research at the Spitzkoppe reaches back to 1917 when the Bushman Paradise was first excavated by the geologist Reuning (Vogt, 2006). In subsequent years it was studied by, among others, the French prehistoric cave art specialist, Abbé Henri Breuil in 1948 (Breuil, 1955). Various expeditions to the Bushman Paradise were made by Dr Ernst Scherz with an aim of recording the prehistoric art (Scherz, Denninger, & Breunig 1986). Kinahan made the first systematic survey of the Spitzkoppe archaeological region and recorded 37 rock art and archaeological sites including the Bushman Paradise. According to Kinahan (1990), the site yielded evidence for an early transition from a hunter gatherer to herding economy. Part of the evidence is the paintings of what Kinahan has identified as cattle (Kinahan, 1990, p. 9).

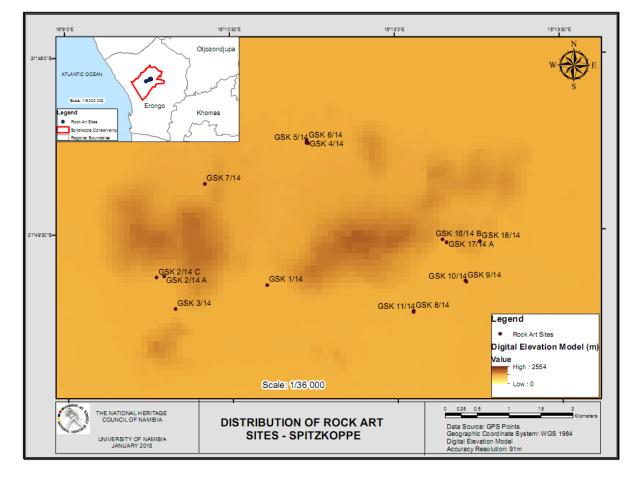


Figure 1: Map of Große Spitzkoppe indicating the location of the Bushman Paradise (GSK18/14)

Site description

The Bushman Paradise is the largest site that was recorded during this reconnaissance. It is located on the western end of the Große Spitzkoppe. Located at an elevation of 1,584 meters above sea level, it represents the highest positioned site that was recorded during this field trip. The Bushman paradise is the only site that is declared a national heritage property in the entire Spitzkoppe. It was gazetted in 1954 (Vogt, 2006). However, all rock art in Namibia is automatically protected by the National Heritage Act 2004 (Act 27 of 2004). We argue that, despite the understanding among heritage practitioners and professional archaeologists that all rock art sites are automatically protected by law, declared national heritage sites have prestige over those not officially declared. Official national heritage sites receive more attention and resources that aim at protecting them. Declaring some rock art sites as national heritage sites and ignoring others in the same landscape creates an artificial hierarchy of sites that is tantamount to selective heritage management. We posit that each rock art site is important and equally so since each site embodies silent narratives about the past economy, religion and environment of precolonial society in Namibia. We therefore argue that the Große Spitzkoppe area should be declared a national heritage place so that the rock art sites therein can receive the same attention as other famed rock art sites in the country.

The shelter opens to a large deflation among huge granite boulders. The deflation is vegetated by trees, grass, bushes and shrubs. The vegetation could have sustained some animals such as klip-springer (*Oriotragus oriotragus*) and rock hyrax (*Procavia capensis*). During the field research for this project some rock hyrax and klipspringers were encountered in the area. Some of the small antelope that are painted in the shelter can safely be identified as klipspringer.

The deflation contains a large surface scatter of stone artifacts. Quartz appears to be the most dominant raw material that was used to make stone artifacts. The other raw materials that are immediately visible include dolerite, chalcedony and silcrete. It is possible that more lithic raw materials were used at the site; however, those mentioned here are the most prominent. In addition to stone artifacts, ostrich egg shell fragments were found in the deflation. No pottery was encountered during the field research. It appears that the artefacts in the deflation are in a secondary context. There is a high possibility that they were washed from their original position which could be the Bushman paradise shelter itself. The artifacts could also have been washed from other sites that are located higher than the deflation. Kinahan reported two more rock art sites that are located higher than the deflation. These sites were not relocated during the field work that is under current discussion (see Kinahan, 1990, pp. 1-14).

The shelter contains more than 200 paintings (Kinahan 1990). Most of the paintings are executed in monochrome representing different hues of red. There are a few images, mostly giraffes, that are painted in bichrome and all are in white and red. Human figures dominate the motifs followed by animals such as giraffe, antelope (small and large), lion, rhino and eland. The paintings cover 40 metres of the 45-metre long shelter. The depth of the shelter is 6 meters from the drip line. Such a huge area presents challenges when it comes to systematically recording the art. Therefore a method of transects was adopted.

Approach

The shelter was divided into 9 transects of 5m width each, which were laid from the left end to the right end when facing the shelter. The rock art in each transect was photographed and where possible individual images were documented after group scenes had been recorded. All the markings or evidence of paint in each square were recorded in a clockwise sequence starting from the top right corner. This was followed by recording the condition of the rock art in each of the transects, including the possible causes of deterioration. Acts of vandalism were also recorded per transect. When the documentation of condition of the rock art per transect was completed, the surface of each transect was investigated and any artifacts were recorded and described. All this information was captured on graph paper on which transects were represented as squares. Information from each transect was recorded in a corresponding square. This allows the site managers to identify any cases of deterioration in future since they will be able to focus on a specific section of the shelter. In this article we present the results of the condition survey that we carried out following the approach described above. We suggest some measure to mitigate some of the threats to the rock paintings of the Bushman Paradise site. Hopefully, the measures that are suggested in this paper may be applicable to other sites of similar nature.

	TRANSECT &: 5-10M
	· HUMAN FIGURES = 11 JISIBLE EAST
	- CARRYING BOWS ONE FIGURE HAS
	AND ARROWS HEND TO NOSE
	- IN A SINGLE FILE
Site : Bushmans R Area : SPITZ KOPPE	
aps coordinates: see site rec	
SCALE : 1:10	Figure Frices
TRANSECT A: 0-5 M	
	· ONE ELEPHANT ABOVE HUMAN
NO VISIBLE PAINTINGS	Figures but not superimposed
	ON THEM
NO DISTURBANCE OF DEPO	SIT
NO VANDALISM	
NO NATURAL DETERIORATI	i on
	@ 5-10 M
	MANAGEMENT AND CONDITION ISSUES FRANSECT B]
	Water run - off - over the ELEPHANT AND
	Some Human Figures
	BUSHES ON LEFT AT 5 M PEG - NOT DISRUPT
	Bustles ON RIGHT AT 10M PEG- BRUSHING
0 0-5 m	AGAINST PAINTED SURFACE

Figure 2: Example of transect documentation from Bushman's Paradise

Condition of the paintings

Transect A

Transect A covered the first 5 meters from the left end of the shelter (when facing the shelter). No visible paintings were observed in this transect. However some sections reveal that there could have been some paintings that have faded completely. The cause of the fading could not be established immediately. It was observed over 3 days that visitors were not directed to this section of the shelter. In fact no attention was given to it at all. The visibility of this section of the shelter is screened by some bush that is more than 2 m at its highest and spreads over the entire 5 m of transect A. The height of the bush drops to 50 cm high towards the end of the first 5 meters (where transect B starts). The deposit did not appear to be disturbed and no incidences of vandalism were recorded in this section. There were signs of drip water running down the surface of the shelter but since there are no paintings on this particular transect, this occurrence is not considered a threat.

Transect B

The first visible paintings at the Bushman Paradise were encountered in transect B. These paintings comprised human figures and an elephant that were executed in monochrome red. Altogether there are 13 human figures in a single file of which 12 face to the east and the last one faces to the west. The elephant was painted above the human figures but not superimposed on them. When viewed together the paintings give the impression that they compose a scene. The first human figure (east-

ern-most) has its hands raised to the nose while the rest carry bows, arrows and quiver bags. However, one of the human figures appeared to carry either a long arrow or stick.

The paintings in transect B were visible for most of the day but the best viewing time is before midday. They were located in the path of drip water, however, only one human figure that is directly below the elephant motif is affected by the water running down the painted surface. The location of rock paintings on specific sections of the shelters was deliberate and was meant to convey a particular meaning. Thus, in this condition survey the paintings that were located in the path of the drip water were not considered to be threatened by the water but instead, they were viewed as communicating some deeper symbolic relationship between the art and rain. The combination of the motifs needs to be studied closely but so far it can be tentatively concluded that the placement of paintings on drip water-ways was deliberate. Kinahan (1999) posited that the location of rock art sites is not coincidental but rather is mimetic of natural forces of rain and rain-making traditions of the hunter-gatherer. It can safely be argued that the location of the motifs in the drip water pathways may be related to rain-making experience or at least may indicate a connection between rain making and the motif. A fuller appreciation and a closer attempt at understanding the meaning of rock art demand that the art is read in its primary setting.

The visible paintings in this section are threatened by bushes that brush against the wall but not necessarily against the paintings. The bushes also screen the view of the paintings on approaching the site. However, no damage attributable to human activity was observed in this transect.

Transect C

Transect C is the most central in terms of its location and is one of the panels that draw the visitor's attention, which makes it the one of the most threatened sections of the shelter. It is very important, however, in the study of the transition from a hunter-gatherer economy to a hunter herder economy since it holds part of the evidence, in the form of paintings that were identified as cattle that Kinahan used to argue for such transition (Kinahan 1990, p. 8).

The sediment in front of the panel is very fine and different from the rest of the site which is coarse and sandy. The images on this section of the frieze include a lion, rhinos, human figues, therianthropes and antelopes such as giraffes, cattle and springbuck. Despite the images being visible there is evidence that some liquids were applied to the images to increase visibility when photographing them. During the fieldwork season the management of the Spitzkoppe campsite reported that they had intercepted a visitor who had gone to the site without a local guide and had applied some liquid to the paintings. The management explained that they felt powerless and had to let the culprit off. This indicated that there is a need for the National Heritage Council (NHC) and the local stakeholders to define policing roles. The NHC does not have staff at the site and thus should rely on comanagement strategies with the local community and the campsite management.

The combination of wet surfaces and dust kicked up by visitors creates a film on and around the painted surface that results in a conspicuously discoloured greyish section. Such spots stand out and appear to attract attention of the visitors. All categories of deterioration of rock art that can be attributed to human activity in the Spitzkoppe were encountered in this transect; graffiti in the form of scratching the rock surface with sharp objects, charcoal drawings, peckings or pick marks and in one case removal of paintings by cutting off the desired section. One of the removals was successful while the other is enduring testimony of an attempted removal.

Transect D

Transect D is equally as popular with visitors as transect C. The focal point in this transect is a scene of seven human figures that are in a single file facing the west. Two additional human figures are painted on a surface above the seven humans of which one in a sitting position and the other that appears to be 'floating' in a prone position. This scene bears evidence of liquids having been applied to it. The other paintings that are recognisable in this transect, include 2 rhino that are executed in monochrome white paint. These rhino are painted facing west with the larger one in front of the smaller one (which can be interpreted as the adult rhino leading an infant rhino). There are also some various medium and large antelopes painted on this panel.

The sediment on this part of the shelter begins as coarse gravel for the first 45 cm from the wall and falls into a gully that has been caused by erosion and human traffic since it serves as the pathway across the shelter. Some low bushes screen the panel in such a way that visitors are forced to stand closer to the painted surfaces for better visibility. The paintings are generally no longer vibrant due to natural fading and application of liquids by humans. The two rhino produced in white are not affected by either natural or anthropogenic causes.

Four forms of vandalism were observed in this transect. Some charcoal drawings have been executed on top of some painted surfaces. There is also evidence of scratching of the rock surface and some painted areas in some cases. The third possible act of vandalism is what appears to deliberate removal of a painted section. Finally, some liquids were applied to painted surfaces. This article observes that high visitation to particular sections of the shelter correlates to high frequencies of forms of deterioration (see Table 1 below).

Transect E

This is the most extensively visited section of the whole shelter and by extension is also the most vandalised section. The images include human figures, some rhino, a lion, giraffes and some antelopes that are interpreted by the local guides as buffalos, although they were identified by Kinahan as cattle (Kinahan 1990, p 3). The fact that community tour guides present the cattle as buffalos cannot be simplified to mean that they recognise the resemblance between cattle and buffalos but is a pointer to a serious debate that is needed in the archaeology of Namibia. In our view the interpretation of the art as buffalos coupled with the fact that the community guides present the rock art of the Bushman Paradise as a product of hunter-herder authors is not just a case of them "considering their views more important than those of archaeologists" as Chirikure and Pwiti (2008) observed from other cases. It raises epistemological questions about research in the archaeologies of Namibia especially with regards to the nexus between local communities and academic and professional archaeologists. Most academic and professional research results are published in languages that local communities are not proficient in. Furthermore the research is published in academic journals which are by not accessible to communities. Another question that needs to be addressed by this debate is about whether or not academic and professional archaeology in Namibia empower communities and if it does, in what ways does it do so? What this example from the Bushman Paradise signifies, and as indeed is evident from many other cases from the Brandberg and Twyfelfontein, is a growing consumption of archaeological research output among local communities, and hence archaeologists working in Namibia need to engage with the politics of knowledge in a more robust manner. Local communities are beginning to challenge received modes of thought and practice, as Shepherd argues elsewhere (Shepherd, 2008).

The bichrome giraffe in transect E are painted in red and white. Their heads and backlines are painted in red and the whole body in white. At least one of the images correlates with what Kinahan (ibid.) has identified as a giraffe-headed serpent. In this case, only the backline and the head were painted and they are connected. This is consistent with imagery of rainmaking, since both animals are associated with the metaphors of rainmaking among the San. The deposit in this part of the shelter is very coarse gravel. There is no screening of the panel and therefore photographs can be taken from a distance of 3 m from the painted surface. However, observations during the field work indicated that visitors go to within 45 cm from the painted surfaces either for the purpose of having a better view of the paintings, or for taking photographs.

Applying liquids on painted surfaces with the aim of obtaining better quality photographs remains the major challenge on this section. Altogether there are 6 spots that visitors frequent to view this panel and these can be identified by evidence of liquids that were applied to the paintings. There are also some charcoal drawings and chipping of the painted surfaces.

Transect F

The only discernible image in this transect is an antelope that resembles a cow (see Kinahan 1990). It is important to note that original artists did not divide the shelter wall into panels and transects and therefore any attempt at interpretation based on this distinction of sections of the wall will definitely be disjointed. This was clearly demonstrated by the fact that while the last antelope fell into transect F it was clearly part of the scene in transect E. The wall was divided only for the sake of documentation. This approach is especially useful in attending to finer details of deterioration of the art, making analysis possible and results testable, as Lenssen-Erz (2000) has argued elsewhere.

There are also vestiges of paintings in this section of the shelter but these are extremely faded, and hence fall into the category of indeterminate. It was observed repeatedly during the reconnaissance that the local guides do not pay attention to this section of the wall. This is most likely the reason why the only discernible painting in this section is well preserved, except for some natural exfoliation that was noted by Kinahan in 1990.

Transect G

Transect G marks the end of the panels that are visited by tourists because most of the paintings there are extremely faded. It was also observed during the reconnaissance that local community guides do not direct visitors to this part of the shelter. However, a few inquisitive visitors reached transect G independently. It is difficult to discern most of the paintings, except for a group scene of humans. The only damage that is attributable to human activity on this section of the rock face is the application of liquids to the group scene of humans.

Transect H

This is a rarely visited part of the shelter which has only three discernible paintings of animals, belonging to the antelope family. The paintings generally were in a good condition but possibly they are not as exciting as those in transects D and E. The other possible reason why visitors do not reach this part of the shelter, is that the local guides do not take them beyond transect E. Visitors tend to wander after transect E and 'discover' the rest of the paintings on their own. In addition to that, there is a huge tree of the Commiphora species brushing against the wall. This tree screens the small painted surface. This section marks the end of the painted surface at Bushman Paradise at 40 meters.

The causes of deterioration of the rock paintings at the Bushman Paradise are summarised in Table 1 below.

Type of damage/deterio- Transect									Total
ration	Α	В	С	D	E	F	G	I	
Charcoal graffiti			1	1	1				3
Chipping/ pecking			1		1				2
Scratching with a sharp object				1					1
Removal of art			1						1
Application of liquids			1	1	6		1		9
Natural fading	1						1		2
Drip water	1	1							2
Attempted removal of the				1					1
art									
Exfoliation						1			1
Bushes/ trees		1					1		2
Dust/ erosion			1	1	1				3

Table 1: Frequency of forms of deterioration per transect

The numbers represent the frequency of occurrence of forms of deterioration per transect. Distribution of natural forms of deterioration

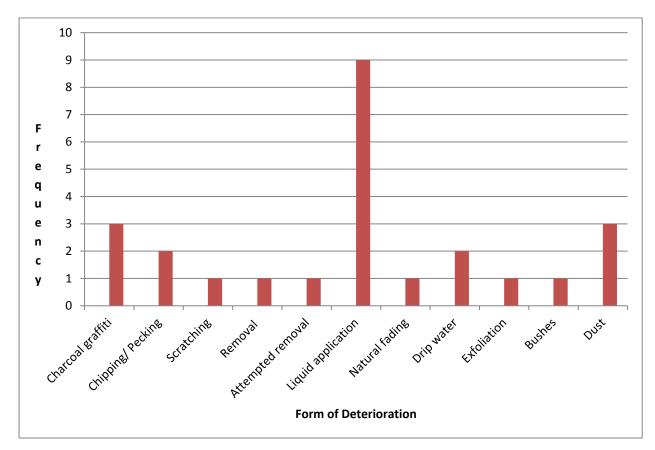


Figure 3: Frequency of forms of deterioration at Bushman Paradise

Discussion and Conclusion

Figure 3 indicates that altogether eleven causes of deterioration were observed at the Bushman Paradise of which anthropogenic reasons are more prevalent than natural factors. The distribution of damaged rock art (as represented in Table 1) indicated that human induced damage is restricted to the central transects C-E, while natural deterioration is localised in peripheral transects A, B, and G. There is a correlation between the high frequency of visitors to some transects and a high frequency of human induced damage. The site management implication of this scenario is that strategies for mitigation should concentrate on human activities and more attention should be paid to central panels.

A major threat and most compelling management concern at this site is the application of liquids onto painted sites by visitors, as represented in Figure 3 above. It was recorded at nine spots across a section of 25 meters of the shelter. Charcoal graffiti and dust rank second in prevalence and the common factor among these three major threats is that they all originate from human activity. The tabulation of forms of deterioration has revealed that vandalism is a major problem at Bushman Paradise and this is represented by 6 different forms: charcoal graffiti, chipping/pecking, scratching with a sharp object, removal of art, attempted removal, application of liquids and dust/erosion. Thus, a management strategy that emphasises and insists on close monitoring of visitors' activities is required at the site. The dilemma is how to institute such a management strategy in a non-intrusive manner.

While visitors deserve to pay entrance fees to visit the prehistoric paintings at the Große Spitzkoppe, the sites need to be preserved. There is a need to impart the knowledge that prehistoric rock art is heritage that is loaded with religious, cultural and environmental meanings. Such significance will be completely lost if the art is damaged. Although this observation is based on analysis of Bushman Paradise, it can be applicable to other sites where similar factors may be diagnosed.

One way of ensuring that visitors are equipped with the correct and useful knowledge concerning appropriate behaviour at rock art sites, is through establishing an interpretive center near the site, but far enough from the painted shelter. When visitors have been briefed about the site and its archaeology, they will be informed to carry cameras only to the site. Any liquids should be left at the interpretive center. Given the difficult ascent to the Bushman Paradise we highly recommend that the interpretive center be established at the bottom of the ascent. This will give visitors the opportunity to appreciate the natural environment and prepare for a very tough climb with a chain before they could appreciate the antiquity, meaning and significance of the prehistoric art. The interpretive center will then also be an area where the visitors could rest after a tough descent, and this should be developed using nonintrusive material that blends with the environment.

In addition, a walking board can be constructed to protect the archaeological deposits from being trampled by visitors at the rock art site. The walking board will control the flow of human traffic and its barrier rails will control the distance between the visitors and the painted surfaces.

This study has demonstrated that systematic documentation of rock art sites is helpful in elucidating patterns of deterioration, as confirmed in Table 1 and Figure 3. In the case of the Bushman Paradise, human induced deterioration of the rock art was identified as the major challenge and this should inform site management strategies to be employed at the site. In addition visible and regular patrols by security guards or community guides to the site may reduce the incidence of vandalism since it was observed that defacement of the rock art took place when some visitors went to the site unaccompanied by local guides. There is also a need for formal cooperation between the National Heritage Council, Spitzkoppe campsite management and the local community guides in the protection of not only the rock art of the Bushman Paradise, but also that of the entire Große Spitzkoppe. Archae-

ologists, on the other hand, need to be more sensitive and attentive to the emerging trends in the archaeology of Namibia in which communities have become not only consumers of received knowledge but aspire to be producers of knowledge based on local and indigenous experiences. The current local population may not be the original artists but they have appropriated the art in ways that generate new meaning systems and, as such, the local communities have become part and parcel of the new archaeological discourse in Namibia.

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