



CONSERVATION TREATMENT RECORD: ROCK IMAGE SITES

Site #: (no official site number)

Site name: Kakapel

Client/Agency: National Museums of Kenya (NMK) and the Trust for African Rock Art (TARA).

Location: Site is located in western Kenya in the Chelelemuk Hills, Teso District, south of Mt. Elgon, approximately 27km west of Bungoma.

Treatment Dates: 01/23/2006 – 02/01/2006 (Treatment of the site took place in conjunction with a workshop on the principles of rock art conservation which was attended by participants from the NMK and other agencies: John Mitsanze, Odanga A. Imbahale, Thomas Mboya Mwendwa, Brian Nyambu, Gilbert Ouma, Linda Awino Kongiri, Samson W. Dwane Bollo, Dominic S. Mawa, Bernard M. Mailu, Geoffrey W. Ngumbi, John Bryan Munga, Ebrahim Mwangi and Rhoda Lange (all of the NMK), Jack Maurice Obonyo (Abasuba Community Peace Museum), Kigongo Mugerwa Remigius (Department of Antiquities and Museums, Uganda) and Amolo Ng'weno (TARA).

Description: (Figures 1a, b and c) The site comprises a series of three shelters formed at the base of the same granite outcrop. The ground slopes uphill from north west to south east (as correspondingly does the line of shelters). There are two panels of images, Panel 1 (Figure 2) being at the southeast end of the first (north west) shelter, and Panel 2 (the “main” or most visible and largest of the panels) being situated in the middle shelter of the line of three (Figure 3). Scant traces of pigment (mostly red) can also be seen either side of Panel 2 on very close examination and under favourable light conditions. On discovery these were label Panel 2 left extension and Panel 2 right extension, as located when facing the panel. Panel 2 right extension is located within the third of the line of shelters.

The general orientation and structure of the line of shelters offers some protection from both direct sun and driven rain. The floor of the first shelter (and the location of Panel 1) is fairly open except for some low vegetation, while the floor of the middle shelter (Panel 2) is covered with boulders that originally were attached to the area that now carries Panel 2 and fell prior to the panel being created.

The area immediately in front of the site was once forested (as recently as 10 years ago), but has since been cleared for agricultural purposes and is now mostly open

although new trees have begun to grow and others have been planted to replace those that have been cleared.

The site is currently the focus of a community development project aimed at managing the site and developing it as a tourist attraction. To that end a large metal fence has been constructed directly in front of the site to keep both people and animals away from direct contact with the panels.

All images at both panels are pictographs executed in red, white, yellow and black paint. Both panels contain abstract images, as well as animals and other apparently figurative forms.

Panel 1 is the harder of the two to see due to heavy deposits of naturally forming mineral concretions that are slowly covering the images. On close examination traces of residual pigment can be seen in areas that are adjacent to the visible panel but on general viewing appear to not contain any pictographs. This suggests that Panel 1 was originally much larger in extent than is currently apparent.

Panel 2, the largest area of clearly visible images, is similarly flanked by areas which on first viewing appear free of rock images but which on very close examination and under favourable light conditions reveal residual traces of pigment over a very large area. These traces of nearly lost images combined with similar remains associated with Panel 1 suggest that at one time the majority of the outcrop surface through out the three joined shelters originally carried pictographs.

The areas of traces of pigment exhibit various natural on-going causes of deterioration that would account for the near total loss of images in these areas. Graffiti is also widespread through out Panel 2. Where paintings remain clearly visible they can be generally described as being in fair to good condition.

The panels show clear signs of multiple episodes of painting (not necessarily separated by long periods of time) with images clearly superimposed over each other.

The site at Kakapel is currently the focus of a major site development program aimed at both providing protection for this important site, developing it for appropriate tourist visitation, while at the same time developing local community involvement in the management and steward ship of the site.

Condition: In general the site is in fair condition and exhibits deterioration from both natural and cultural (human) sources.

The natural deterioration is mostly being caused by water related processes, especially the deposition of insoluble salts, or minerals, over the walls of the site including over the rock paintings. Such natural processes are all but impossible to mitigate and in this case, as the water is largely flowing through fractures in the formation in locations were drip lines and similar devices are not practical, little can be done to prevent this problem.

The most obvious and egregious impact at this site is related to the activities of visitors, in particular the recent increase in major incidents of graffiti. Fortunately most of the graffiti takes the form of scratched or abraded inscriptions, along with some chalked letters, lines, dates and words, as well as the use of chalk to outline some of the paintings. There are also some incidents of crayon, charcoal and marker pen graffiti, but these are minimal.

For a comprehensive condition assessment of this site, please refer to the detailed condition assessment included as an appendix to this treatment record.

Reason/Aim of Treatment: The focus of the current treatment is to reduce and wherever possible remove the graffiti. In addition, the red paint spilled during painting of the metal fence will be removed, as will the crudely painted signs (yellow paint) commemorating the planting of three trees in December of 2005.

Treatment: Treatments were carried out primarily on Panel 2 and its extensions to left and right. No treatment of Panel 1 was needed.

Tests were first carried out to determine the solubility of the original pictograph pigments using several points from across the main panel (and this testing continued through out the treatment process as different areas of the panels were worked on). Light application to the test area surface of the tip of a water dampened cotton swab resulted in negligible or no removal of pigments onto the swab surface. Repeated application of damp swabs suggested that the solubility of the pigment remained constant and differed little with more prolonged exposure to water. Overall these tests indicated that the images would likely withstand two to three applications of water with no or negligible pigment loss.

It was decided to use very thin, stain-like artist's acrylic paints to visually reintegrate the scratched and abraded graffiti. Acrylic paint is non-water soluble once dry so it will not migrate or bleed out into the surrounding areas under damp conditions. However, it is reversible once dry using a mild solvent such as alcohol.

To aid with the documentation of the treatment and to manage the actual treatment process, the main panel was divided into 11 treatment areas, identified alphabetically A to L (the letter "K" was accidentally overlooked so the 11 were actually labeled A to J followed by L, with no area designated as Treatment Area K). In addition, the two extensions to Panel 2 (Panel 2 extension left and Panel 2 extension right) were considered treatment areas in their own right needing no subdivision. The boundaries of the treatment areas were chosen arbitrarily and function purely as a work management tool. Figure 4 illustrates the locations of these areas.

The following treatment steps were undertaken at Panel 2 and its extensions:

1. The treatment areas were photographed in order to record their visual appearance prior to any treatment taking place. (Figures 5 to 17, "a" figures only).
2. All areas of chalk and charcoal graffiti were reduced or removed using cotton swabs dampened with deionized water rolled over the chalk deposits to lift and remove them.

3. In areas where the chalk was more tenacious and where it did not occur over rock art images, the chalk was lightly misted with deionized water to rinse it from the surface. Rinse water and chalk residue was captured in paper towels or cotton cloths held below the area being treated. This prevented chalk residue from running down the surface below the area being treated and leaving chalk deposits on otherwise uncontaminated surfaces.
4. A few small areas of particularly hard chalk were reduced by gently rubbing with an oil free pencil eraser.
5. Areas of scratched and abraded graffiti were also cleaned with swabs and/or by spritzing to remove any remaining loose dust created by the scratching process.
6. Scratched and abraded areas were visually reintegrated using acrylic artist's paints applied only to the actual scratch using a 000 and 0 (extremely fine) sized sable hair brushes and thin hogs hair brushes, avoiding as much as possible applying acrylic paint to any areas of original pigment. The palette used included Winsor & Newton® (yellow ochre, raw sienna, burnt sienna, raw umber, burnt umber, red iron oxide, ultramarine blue, ivory black, titanium white and Davy's Grey) and Liquitex® (neutral grey, unbleached titanium and cadmium red medium hue). The paints were mixed to provide a colour close to that of the original rock surface or pigment but not exactly matching so that the modern paint area can be clearly distinguished from the original on close inspection. Cadmium red paint was included in all colour mixes to act as a chemical marker of the presence of modern paint, should the area ever be sampled for pigment, or other chemical analysis, The paints were greatly diluted with water until they resembled an ink or stain thus avoiding laying down a thick film or layer of paint that could be confused as an application of original pigment, as well as introducing a change on surface texture to the panel.
7. A few small areas where chalk remained despite the chalk removal treatments explained above, were also visually reintegrated using the acrylic paints and the method described in step 6, above, applying the paint stain only to the chalk residue.
8. Areas of blue wax crayon (Treatment Area L) were removed with two thin applications of gelled methylene chloride based paint remover (dwell time for each application was five minutes) applied by cotton swab. Remover gel was wiped from surface using cotton swabs and then the area was rinsed with water to remove paint remover and crayon residue, As with the rinse water from the chalk removal, this rinse water was also captured on paper and cloth towels held directly below the area being cleaned,

9. The gelled methylene chloride paint remover was also used to begin removal of the splashed and spilled red paint on boulders within the shelter areas. This paint was spilt at the time the new fence was painted after installation. The paint remover was applied by brush multiple times and rinsed off with water. Due to a lack of time, it was not possible to remove all of the red paint.
10. Plants within the shelter and close to Panel 2 were removed to prevent them from growing to become a threat to the preservation of the images.
11. On completion of all treatments, the areas were re-photographed (Figures 5 to 17, "b" figures only).

All treatments were carried out by or under the direct supervision of J. Claire Dean (Conservator), Dean and Associates Conservation Services, Portland, Oregon, USA. Work was carried out in accordance with the Guidelines for Practice and Code of Ethics of the American Institute for the Conservation of Historic and Artistic Works (AIC). Assistance was provided by all the workshop participants, in particular Gilbert Ouma and Brian Nyambu (both with the NMK) who spent an extended period of time helping with the treatment of the panel.

Results of Treatment: On conclusion of the project all treatment goals had been reached with the exception of the removal of all of the red paint spilt during painting of the metal fence. Lack of time also did not allow for the removal of the crudely painted signs (yellow paint) commemorating the planting of three trees in December of 2005. However, removal of both types of paint can be continued by NMK staff in the near future.

Discussion/Observations:

Workshop on rock art conservation – The treatment of the site to remove graffiti was carried out in conjunction with a workshop aimed at introducing participants to the principles of rock art conservation. The participants (mostly from the NMK, but also from other agencies, see list of individuals below) attended lecture-style information sessions about general conservation practice and rock art conservation issues in particular as well as carrying out a small amount of hands on-treatment work helping to remove the graffiti.

The aim of the workshop was not to train the participants to become rock art conservators (an impossible task when you consider that the basic training for a conservator takes 4 years at the postgraduate (Masters degree) level), but to acquaint them with the current principles behind sound conservation practice as it relates to rock art sites. This included carrying out condition reports, assessing deterioration, documenting the condition of a site, principles of the reversibility of treatments, and the documentation of treatments.

In addition to the ideas behind current conservation condition assessment and treatment practice, the concept of "preventative conservation" was discussed at great length. A critical part of all fields of contemporary conservation practice, preventative conservation in the case of rock art is also known as "site management" and as such represents a vital part of rock art site preservation. It was in this area that the participants were able to best use their considerable talents

and contribute invaluable ideas and evaluations of the efforts already underway to manage the site at Kakapel. The section **KAKAPEL COMMUNITY MANAGEMENT ISSUES**, below, presents an outline of the results of this important work.

The participants contributed to all aspects of the conservation work at Kakapel including the attached condition assessment (see Appendix) and the content of this report.

Use of acrylic paints to reintegrate scratched and abraded graffiti – The use of acrylic paints to reintegrate scratched and abraded graffiti is an established method of treatment which is reversible (with a mild solvent such as alcohol) and so can be removed in the event that a more successful treatment method is developed or becomes available in the future.

The longevity of the acrylic paints is hard to determine as it is dependant on prevailing environmental conditions which differ greatly from location to location. However, where they have been used under similar circumstances they have been visually acceptable for seven or more years, at which time they have needed retouching.

Although it is never ideal to add any new material to a rock art site graffiti reintegration of this type is thought to be more acceptable than leaving it completely visible and untreated. To leave it untreated would have not only left the site looking unattractive and damaged, but could also attract further incidents of vandalism – a phenomenon well known at other sites. In addition, apparent inaction on the part of any managing agency indicated by leaving the graffiti problem unaddressed does not convey a proactive attitude towards site protection and care.

Impact of installation of fence – While the new fence is a welcomed introduction aimed at keeping both visitors and animals at a distance from the rock art, it does represent a major intrusion into the natural setting of the site. Its construction out of metal (providing a fire proof and low maintenance feature), its bright red colour and height make it visually very distracting as well as a major obstruction when trying to take photographs of the images.

Much discussion took place about the merits of the fence however, all agreed that the need for some sort of physical barrier is warranted at present until such time as the site can be more securely enclosed and guarded at which point it may be possible to remove the current metal barrier altogether.

Paving the shelter floor – Concern was raised about the possible need to pave the floor of the shelter to reduce dust. At the current time this seems unnecessary as people can no longer walk on the bare earth directly below the panel as the fence prevents such access. However, if visitor numbers increase and result in loss of vegetation close to the fence, dust levels may increase and a need for some form of dust suppression or control may be called for.

Recommendations for Future Care: The following recommendations are made for the future care of Kakapel:

- On completion of improvements to the site (fencing, reforestation, conservation/restoration treatment, etc.) the site needs to be monitored regularly (twice a year) for any changes in the site's condition including vandalism and other unintentional and unforeseeable changes to the site, especially those possibly caused by the development work. Monitoring should be recorded in written note form and photographically. Should changes occur to the paintings a conservator should be consulted as soon as possible.
- Efforts must be made to educate all site guides about the unacceptable practice of graffiti writing.
- In the future it may become necessary to retouch the reintegration paint that hides the scratched and abraded graffiti. In order to protect the remaining integrity of the original paintings, this work should be carried out by an experienced professional conservator.
- Litter bins should be provided near the parking area and litter dropped elsewhere collected on a regular basis. Visitors must be actively discouraged from dropping litter.
- The remains of recent camp fires in the site should be cleaned up both to discourage others from being set and to remove charcoal that can be easily used to add graffiti to the site and its surroundings.
- Burning of plant material and other waste should take place at least 200m away from the site itself.
- Reforestation should continue but only using indigenous trees and planting them no closer than those planted in December 2005. This process should also be done slowly so as to avoid over crowding and the establishment of very dense growth.
- The current fence should be modified to prevent animals and people from being able to duck underneath it and enter the site. Efforts should also be made to make it less visually intrusive, such as painting it grey (rock colour) or brown, rather than red. Consideration should also be given to taking other management steps that might allow for its eventual removal.

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KAKAPEL COMMUNITY MANAGEMENT ISSUES

During the course of the conservation workshop held at Kakapel the topic of site management – actions that represent preventative conservation measures that help protect and preserve a site – were discussed at great length both during the course of general discussions and as the focus of several topic specific sessions. Planning and implementing preventative conservation procedures is part of a standard approach to the conservation of any form of cultural heritage and is essential if the long term preservation of cultural property is to be achieved.

The following is a summary, prepared by Amolo Ng'weno (TARA), outlining the points raised and the conclusions made by the workshop participants as a group. The group of workshop participants is especially well qualified to make statements about the management of the site having arguably spent more time there in person working in and around the site than any other cultural resource professionals have done to date.

This synopsis is included in this document with the conservation treatment record and condition assessment of the site because the topics discussed represent an active part of the site's conservation – issues and ideas that impact the long term protection and preservation of the site.

Why community?

- living heritage (site in use)
- ensures and creates value
- enriches research & visitor experience with oral histories, legends and folklore
- better placed than NMK to know when the site is in use and by whom.

Protects against:

- graffiti
- treasure hunters
- fire
- illegal/immoral acts

Who is the community?

- those living around the site

Who will be the community interlocutor with the NMK?

- committee of approx 6 people to include
 - traditional leaders, for culture and tradition
 - educated people for interface with NMK, outsiders and to develop projects
- NMK to draw up guidelines
- baraza and workshop to sensitize community
- community to elect or propose own committee

Who should be allowed to use the site for free?

- community, for one year, during which active outreach would be conducted to have them come to the site and learn more about it and its values
- community, for traditional ceremonial and ritual purposes, although these need to be better understood and defined
- churches and religious organizations but only under written (and signposted) guidelines. This is complex issues for at least the following reasons:
 - some unwilling to share what they are doing at site and why
 - often come by night (problematic for site security)
 - are not necessarily of the community (some coming from far) but important stakeholders
 - may be linked with traditions of former residents of the area (antedating the Teso)
 - role of non-Christian religions, values, ceremonies
 - use may be seasonal
- community access to be facilitated e.g. signs in simple & local & national languages

Why would the community be interested in cooperating with NMK at the site?

- Direct financial benefits - Important that the NMK transparently indicate to the community their revenue share which could be:
 - % of visitor fees AND/OR
 - levy on all private tourism activities in a defined area (with agreement of local administration) AND/OR
 - specific activity, possibly managed by NMK, for community revenue. TARA to follow up if any potential donors for community tourism project around the big rock
- Direct employment
 - will be limited
 - need to meet community expectations in other ways
- Indirect financial benefits
 - NMK to assist community to sell curios, drinks & snacks at or near the site
 - NMK to facilitate other tourism activities like village visits, traditional dances
 - NMK to facilitate community access to development banks (like K-Rep) and NGOs
- Indirect employment
 - tour guides at the site
 - boda-bodas
- Heritage and culture valued and protected

- Sacred site retains sacred values and is recognized as such
- Education, exchange and network benefits
- Access to improved environmental & agricultural methods and information
- Joint projects between the site & community e.g. water, power
- Other community interests and expectations need to be further understood

Community Guides

- Urgent to put guides in place to enrich visitor experience and prevent further graffiti and other site damage; also to deal with visitors during site manager's absence (especially weekends)
- Suggested guiding fee 200/- per group
 - separate ticket to be issued for guiding
 - guiding fees to be split between any guides on duty that day
 - tips for guide's own pocket
 - no guiding fee for school groups
- 3 guides initially
- Should have badges and should wear a jacket (NMK could advance the jacket & recover)
- Guides should be
 - selected by community on basis of written guidelines
 - gender balance
 - form four education suggested
 - NMK is able to dismiss any guide for specified reasons

Conclusion:

A process of discussion (which is ongoing) should lead to MOU between community, NMK and TARA.