

**INVESTIGATION OF TWO ROCK ART SITES
NEAR NELSPRUIT, MPUMALANGA PROVINCE**

For:

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1205

Survey conducted and report prepared by the:

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SUMMARY

Investigation of two rock art sites near Nelspruit, Mpumalanga Province

H.L. Hall & Sons Co. requested the National Cultural History Museum to evaluate the rock art sites on the farms Riverside and Marathon. The paintings at the two known localities were documented by photographic and graphic techniques, and specific recommendations are put forward concerning the preservation of each site.

The survey indicated that while the paintings at Riverside are fairly stable, those at Marathon are exposed and had been considerably weathered. Along with the art, the intrinsic character of the site and the associated archaeological deposits, in particular, should be secured. These aspects are particularly important since the archaeological deposits at both sites were extensively damaged due to illegal excavation in search of the mythical 'Kruger millions'. Recommendations are put forward in respect of the preservation of the archaeological deposits and sites. Further recommendations address aspects such as the adjustment of the conservation policy of the Company, the introduction of a management plan to preserve cultural sites, and the survey and mapping of sites of archaeological and historical significance on the property of the client. The best investment in ensuring the preservation of this heritage will be the introduction of educational awareness training programmes among employees, since the people who live and work on the property are the true custodians of the cultural heritage.

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INVESTIGATION OF TWO ROCK ART SITES NEAR NELSPRUIT, MPUMALANGA PROVINCE

1. AIMS OF THE INVESTIGATION

The purpose of this investigation was to examine two rock art sites on the farms Riverside and Marathon. The assignment was carried out on the request of the H.L. Hall & Sons Co.

According to terms of reference set out in correspondence dated 22 June 1994 and 19 June 1995, the following was required:

- A survey of the rock art sites, and consideration of their preservation requirements.
- A report which would include comprehensive documentation of the paintings by means of photography and redrawing/copying.
- Development of a management plan for the protection, control and utilization of the site as a cultural resource.

2. CONDITIONS AND ASSUMPTIONS

The following aspects have direct bearing on the survey and the resulting report:

- The recommendations included in this report address conservation requirements at the known sites and under current conditions. Should circumstances change, eg. visitation to the site increase, new threats arise in the future, or further rock art and archaeological sites become known, additional preservation measures will have to be considered.
- All recommendations are made with reference to the **National Monuments Act, Act 28 of 1969**, as amended.

3. METHODOLOGY

3.1 Preliminary investigation

3.1.1 Survey of the literature

A survey of all relevant literature was conducted to review the existing research results

and to determine the potential of the area. In this regard various anthropological, archaeological and historical sources were consulted -see list of references.

3.1.2 Data sources

The **Archaeological Data Recording Centre** (ADRC), housed at the National Cultural History Museum in Pretoria, was consulted.

3.1.3 Other sources

The relevant topocadastral and other maps were studied.

3.2 Field survey

The sites were surveyed according to generally accepted archaeological practices.

3.3 Documentation

The two sites were documented according to standards generally accepted by the archaeological profession:

- photographic and graphic documentation of the paintings
- surveying and mapping of the position of the archaeological deposits at the sites

4. SITE 1: RIVERSIDE

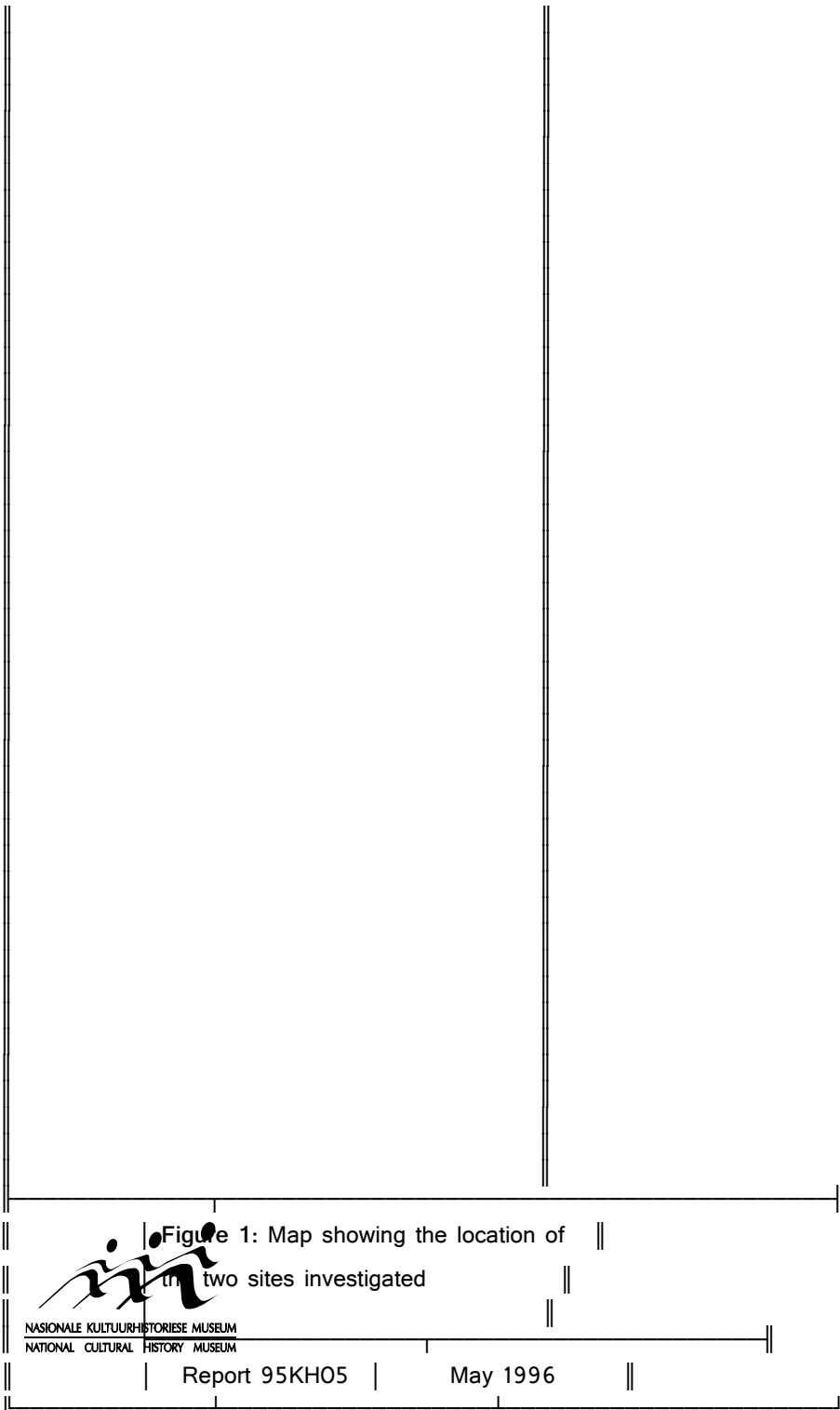
Site 1 is located on the northern slope of the hill directly south of the main road (N4) on the farm Riverside 308JT (1:50 000 map 2530 BD Nelspruit) (figure 1). The site is dominated by a large boulder resting on top of three smaller rocks. The elevated boulder is visible from the main road to Nelspruit and is a clear indication of the position of the site (figure 2).

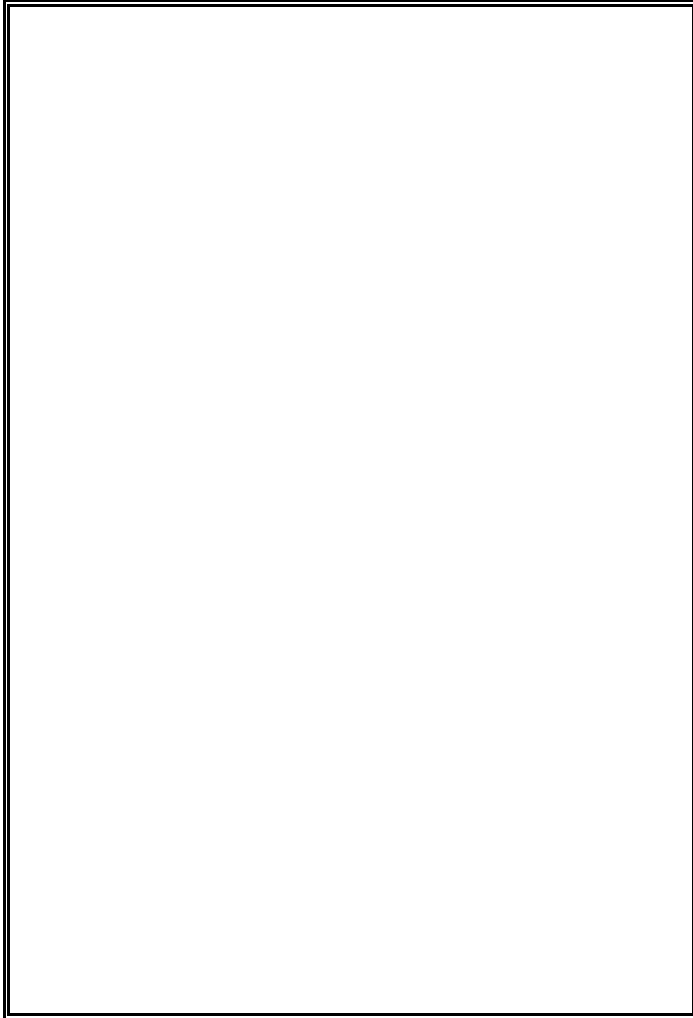
4.1 Paintings

The paintings are found on the protected inner surface of the 'rock canopy' formed in the middle of the largest of the group of boulders. It is likely that a tree-trunk scaffolding was used, since the main panel is at present at least 14 meters above ground level. They are some of the best preserved paintings in this area and show up clearly against the light background.

Although all the figures were painted in the same dark red colour, the technique by which the paint was applied resulted in a darkening towards the edges, and









'thinning' in the centre of figures. This has resulted in some illusion of volume.

The paintings occur in two groups, referred to as the main and northern panels.

The Main panel, 80 x 60 cm large (figures 3, 4 and 11), is painted against the naturally light background of the inner surface of the boulder canopy. It consists of ten figures: four human and six antelope. The human figures display stylistic similarities, with roughly triangular torsos. The figure on the left hand side is best preserved, but as with two of the other figures, there is no trace of the arms. In both this figure and the reclining figure to the right, male characteristics have been indicated. The other human figures have been considerably weathered, but display a fair degree of individuality in orientation, pose and form.

A degree of stylistic variety can also be observed among the antelope figures, which seem to fall in three groups:

- The three figures surrounding the human figure on the left display similarities in pose and shape. Two of these figures are placed in mirror image opposition, the one possibly inspired by the other, but are not necessarily contemporaneous.
- The two antelope on the lower right also display similarities, especially in the rounded hindquarters, shapely dorsal line and horns set far apart.
- The topmost antelope seems to be unrelated to a group, and contrasts with the others. It displays a tense and rigid body position, and the full rounded body contrasts with the spindly legs. The paint has been applied in a 'shaded' technique and special care has been taken in the depiction of facial detail.

The Northern panel (figures 2 and 5) occurs a few metres to the north of the main panel, towards the narrowing northern edge of the shelter and above the dangerously smooth curve of the boulder which supports the canopy. They occur at a similar height to the main panel and a tree-trunk scaffolding was probably also used by the artists in this case. Since our ladder could not reach the awkward position, the paintings could not be re-drawn. A photographic record will therefore have to suffice (figure 5).

The paintings of the northern group consist of five figures, two antelope and three human. They are much more weathered than the figures in the main group, except for one better preserved antelope where both horns, as well as a long nose, have been preserved. Directly above this figure, the upper parts of another antelope have been preserved, showing the head, ears, neck and back line.

4.2 Archaeological deposit



A very deep deposit, up to 4 meters in places, developed under the natural rock canopy south of the largest boulder. This resulted from continuous human habitation over more than 100 000 years. As is evident from the site drawing (figure

11), the deposit extends beyond the central canopy into the exposed area on the outer edges of the large boulder. The group size must therefore have been quite considerable at times.

Unfortunately this deposit has been all but ruined by treasure hunters in recent years. With the exception of a few fragments, which remain in situ, all archaeological material has been displaced, and only fragments remain of what must have been one of the richest archaeological deposits in the Mpumalanga area.

4.3 Recommendations

4.3.1 Since the paintings of both the main and northern panels are situated more than ten metres above floor level, they cannot be damaged by direct touch and are largely protected from vandalism. There is, however, some concern that they may still be damaged by stones being thrown or bullets fired at them. The awareness of the value of the paintings amongst the local people should therefore be encouraged to prevent such vandalism.

4.3.2 A small noticeboard should be placed below the access to the east of the site. It should be worded as an appeal to the visitor not to harm the site since it contains relics of cultural significance, which are protected by the National Monuments Act.

4.3.3 Research has indicated that the presence of moisture and the drying out process, which results in crystallization below the surface, poses the greatest environmental or climatological threat to paintings. The protective dripline (see figure 3) installed at this site to deflect water away from the paintings many years ago, is still largely secure, but some sections are showing signs of disintegration. It will have to be repaired using a similar material, or replaced by a new one made of a silicone-based material. The first option is preferable at this stage.

The chemical properties of the current dripline and its deterioration processes should be analyzed to anticipate possible detrimental effects on the paintings. During an earlier visit, a previous employee, Mr Ian Jenne was of the opinion that it might consist of a quick setting cement such as "white's compound". This is not generally used for this purpose, but it seems to be durable.

It is recommended that as much information as possible be obtained from those who were originally involved in the installation of the dripline, or that a chemical analysis of the compound should be undertaken.

4.3.4 Although only a fraction of the original archaeological deposit remains, it is recommended that a 'rescue excavation' be undertaken, since these remnants might enable us to recover some information on the cultural content of the layers. A decision on whether to excavate or not, should be taken as a matter of urgency, since these remains are unsupported and are likely to disintegrate soon.

4.3.5 The erosion of the central 'pillar' of archaeological deposit, which occurs below the main panel, (and has to be clambered over to gain access to the higher lying 'shelter') might have to be straddled by a ladder, since it will be obliterated if trampled upon.

4.3.6 Please note that since the deposit has been removed from right under some boulders (especially the deposit at the extreme east - see plan drawing of site), the inadequate support on which they rest may give way. This will have to be addressed to prevent possible accidents.

4.3.7 The paintings are well out of reach, but fencing might be advisable to prevent damage to the archaeological deposit by people or livestock. The terrain is also unsafe, due to the displacement or removal of the archaeological deposit. While fencing will serve as a deterrent, it will not prevent the determined visitor from approaching the site. Care should also be taken to place this fencing at least fifteen meters beyond the outline of the deposit.

4.3.8 The visual impact of the fence on the site will also have to be carefully considered. If fencing is erected at all, ordinary low four-strand barbed wire would be adequate and fairly environmentally friendly. The posts should preferably be hammered into the ground, which would limit negative impact.

4.4 Site specific management plan

4.4.1 The management plan should include regular seasonal monitoring/auditing of each site in terms of:

- maintaining the condition of the paintings, dripline and archaeological deposit;
- ensuring that no further illegal excavation is undertaken, and that the site is safe to visit;
- identifying possible threats to the paintings from vegetation, algae and lichen growth, as well as insect activity.

Regular follow-up visits to people living in the area will secure their confidence and gain their co-operation. Positive feedback to staff and local residents should be included in regular visits.

4.4.2. Regular patrols and stricter control by security officers will be required. Such officers will have to be motivated through awareness programmes, and trained to deal effectively with threats to cultural resources.

4.4.3 Although the immediate area is uninhabited, it is essential that everyone who works in or passes through the area, especially the local scouts and security personnel, should be made aware of the value of these cultural remains. We recommend that a special awareness training session be arranged, and that the valuable role which the inhabitants and employees can play in the protection of

these assets be clearly expressed. Positive feedback should also be regularly filtered through to them in order to maintain their support.

5. SITE 2: MARATHON

Site 2 is located on the farm Marathon 275JT, on the road between Sabie and Nelspruit, directly northeast of Boesmankop (1:50 000 map 2530 BD Nelspruit) (figure 1). The site is situated under a slight overhang amongst a cluster of boulders on the southern slope of the low hill overlooking the Pecan nut orchards (figure 6).

5.1 The paintings

The south-facing painted panel is virtually completely exposed to the elements, and the installation of a dripline would have little effect. The paintings are extremely weathered and the remains of only three human figures and four antelope can still be discerned (figures 7 and 9).

Of the three humans, only the lowest on the panel is placed among other figures. They are painted in different styles, the topmost one displaying a large rounded head and curved body. Although this survey does not focus on the interpretation of the art, it is interesting to note that the posture of the one figure could be referred to as the so-called 'trance position.' Trancing is associated with the altered state of consciousness often attained by a 'shaman' or 'medicine man'. Such a person served, for instance, as a benevolent conduit of supernatural power in the search for healing and rain-making. This activity is still practised by the Bushmen today.



The human figure on the left strides in lively rhythm in the direction of the antelope depictions. The arms and legs are particularly slight and the elongated limbs correlate with the visual distortion symptomatic of the trance experience. It was believed that the depictions were imbued with potency, which could be procured through trance activity or touch. It therefore follows that parts of these figures may have been removed in order to counter their potency.

The antelope figures are arranged in groups of two, each containing their own dynamism. The right hand group, presumably an oribi mother and offspring, are placed slightly off the horizontal line, which creates a lively sense of movement. The posture of the larger figure of the lower group, as well as the diagonal position, accentuates the dynamic quality of this image.



5.2 The archaeological deposit

The archaeological deposit at the Marathon site (figure 11) extends over a fairly large area. The deepest deposit occurs at the central section, in the vicinity of the paintings. Further deposits are spread around the boulders directly south of the painted panel, as well as to the north-west, but on the whole the deposits are not nearly as extensive as at site 1.

Unfortunately, this site has also been extensively damaged by 'Kruger Millions' treasure hunters. One of the pits had been dug only days before our visit to the site, since leaves were still visible on the uprooted tree. Concern about the matter was voiced at the Board meeting at the time. Additional damage has subsequently been done to the site.

In addition to stone age artefacts, surface finds of iron age pottery confirm the considerable time span of habitation.

5.3 Recommendations

5.3.1. Since all the paintings are situated at eye level, they are easy to damage through touch. We would, however, recommend that instead of fencing the paintings in, which would at any rate not deter determined vandals, small notice boards should be placed to both the east and west of the site. It should be worded as an appeal to the visitor not to harm the site since it contains relics of cultural significance, and falls under the protection of the National Monuments Act, which may also be quoted. The support poles should be placed along the access paths at

some distance from the site.

5.3.2. Though the paintings themselves should not be fenced in, it may be advisable to fence the larger area in, in order to prevent livestock from entering the area, trampling the deposit, and rubbing against the painted rockface. This fence should be sensitively placed further away from the site and beyond the cluster of boulders to ensure that the unspoilt intrinsic context of the site is not disturbed.

5.3.3. The temperature extremes produced by bush/grass fires could cause severe flaking, which would destroy the art. We recommend that the grass cover within ten metres from the paintings should be controlled manually or by the careful application of herbicides. It should not be necessary to reduce the shrubbery if the grass is controlled.

5.3.4. As far as the archaeological deposit is concerned, we recommend that a preliminary test pit should be dug by a trained archaeologist in order to establish a sequence of cultural content. As is evidenced by the debris from the illegal excavation, the deposit was not nearly as rich as that of site 1, and did not span for nearly as long a time. It may, however, produce a cultural sequence.

5.4 Site specific recommendations

5.4.1. As recommended for the site on the farm Riverside (4.4.1), the management plan for site 2 should also include regular seasonal monitoring/auditing of the site in terms of the condition of the paintings and archaeological deposit; prevention of illegal excavation; and identification of possible threats to the paintings from vegetation growth, algae, lichen and insect activity.

5.4.2. The recommendations concerning patrols by security staff and the involvement of employees and local inhabitants in ensuring the conservation of the site, put forward in the recommendations for site 1 (under 4.4.2 and 4.4.3), will be similarly applicable here.

6. CONSERVATION POLICY

While the Environmental Conservation Policy of the H.L. Hall & Sons Co. deals effectively with nature conservation, only rock art is mentioned in terms of cultural resources. Though cultural sites are protected by the National Monuments Act no. 28 of 1969 and the Environmental Conservation Act no. 73 of 1989, it is essential that the company itself should also specify the conservation of cultural resources in its policy. This will result in the adoption of a balanced management plan, which will ensure the implementation of appropriate conservation measures, as well as monitoring, auditing and the presentation of awareness programmes.

The current Conservation Policy reads that

H.L. Hall & Sons as an environmentally conscious and responsible

landowner, endeavours to: accept the responsibility towards the protection, conservation, improvement and wise utilization of the environment under its control...ensure that acceptable environmental standards are established and will be maintained ... and instil in every employee of the company an awareness of their responsibility for the environment...

It is the policy of H.L.Hall & Sons Ltd., to manage the resources of the farm to ensure an harmonious interaction between all aspects of the farm's natural and man-made environments.

Though the Museum is of the opinion that the protection of aspects such as the mentioned archaeological assets could have resorted under the broad conservation objectives mentioned in the environmental conservation policy, experience has indicated that the conservation of cultural assets would not receive due recognition unless specifically mentioned. Only then would it feature adequately in the management plan and result in the implementation of a conservation programme which also protects cultural remains.

7. MANAGEMENT PLAN

It is important to formulate and implement a more inclusive conservation management plan to guide longer term, annual and monthly conservation programmes. This should include effective training and regular, clearly structured site monitoring programmes, backed by effective control routines and social encouragement/support actions.

7.1 Site management activities

These include aspects such as the establishment of fire-breaks and vegetation management, through manual cutting or the application of herbicides, while seasonal monitoring by trained staff should be included in annual planning. Insects (especially wasps and ants) should be controlled through manual removal or judicious application of insecticides some distance from the paintings. It would be preferable to consult a specialist with experience in the application of these control measures.

7.2 Maintenance of the intrinsic character of the context

The context within which cultural resources, such as the art and archaeological remains, occur should be protected and its integrity secured. A large enough area surrounding the site should be left untouched to enable a pure appreciation of the features. Aspects such as the archaeological deposit, the rockface and surrounding environment have to be taken into consideration, while visual interruption by incongruous elements such as fences and infrastructure must be minimized. All infrastructure and facilities which relate to the use of the site as a resource should be placed beyond the area of cultural activity, and signs or structures such as notice boards and fences should not affect the character of the site or the archaeological

deposit in any way.

7.3 Planning of and restraints on development

Restraints should be placed on development and other threatening activities such as building, road construction, pathways, camping, overnighting, etc. in the area surrounding the site.

Development plans and the implementation of any protective measures should only be planned in consultation with a professional archaeologist. In all development, signage should be limited, with the exception of free standing information boards which explain the significance of the site and paintings, and the legal protection of the cultural remains. One should ensure that all additions and alterations to the site are reversible and without permanent impact, and that areas of activity are clearly demarcated and kept visually obscured from the site.

7.4 Educational awareness training

Information concerning the protection of cultural heritage should be disseminated to any one who might in some way impact upon this heritage. This information may be disseminated in various ways, such as awareness programmes, brochures and information boards. Educational/training programmes should be compiled in such a way as to strengthen a balanced understanding of environmental conservation, inclusive of the cultural and natural aspects.

The conservation principles put forward in the training programmes should foster an understanding for the value of and threat to cultural assets. These programmes should be accessible to all employees, especially conservation/ security officers and scouts, as well as to families, lodgers, and other inhabitants of and visitors to the Company farms. Specific individuals may be enlisted as 'benefactors' of each site, and the assistance of the local inhabitants could be sought. The interest of these people could be maintained through regular 'backup' visits.

It is most important that the message of cultural conservation should also be conveyed to other individuals who may in some way impact upon the environment. These may include tenants, visitors, and partakers of 'recreational' activities, as well as communities beyond the limits of the farms.

Training programmes, with which an institution such as the Museum could assist, should be carefully compiled and should be targeted at specific levels, from sectional managers to local game scouts.

Research in areas such as the Natal Parks Board reserves, where rock art occurs, has indicated that the training should be further supported by regular follow-up routines for best results.

Staff members and local inhabitants may also play a role in the protection of the

sites, and could be appealed to through talks and educational programmes.

8. CONCLUSION

Even though the paintings are faint and the archaeological deposits have largely been destroyed, the significance of the sites should nonetheless be recognized as a link with the Bushmen and other earlier inhabitants of the area. The context in which the paintings occur, and the archaeological deposits in the area, should be preserved due to their intrinsic significance as cultural statements and relics from the past.

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10. PROJECT TEAM

J van Schalkwyk - Project leader

A Steyn - Principal researcher

M Naude - Researcher

S Smith - Language editor

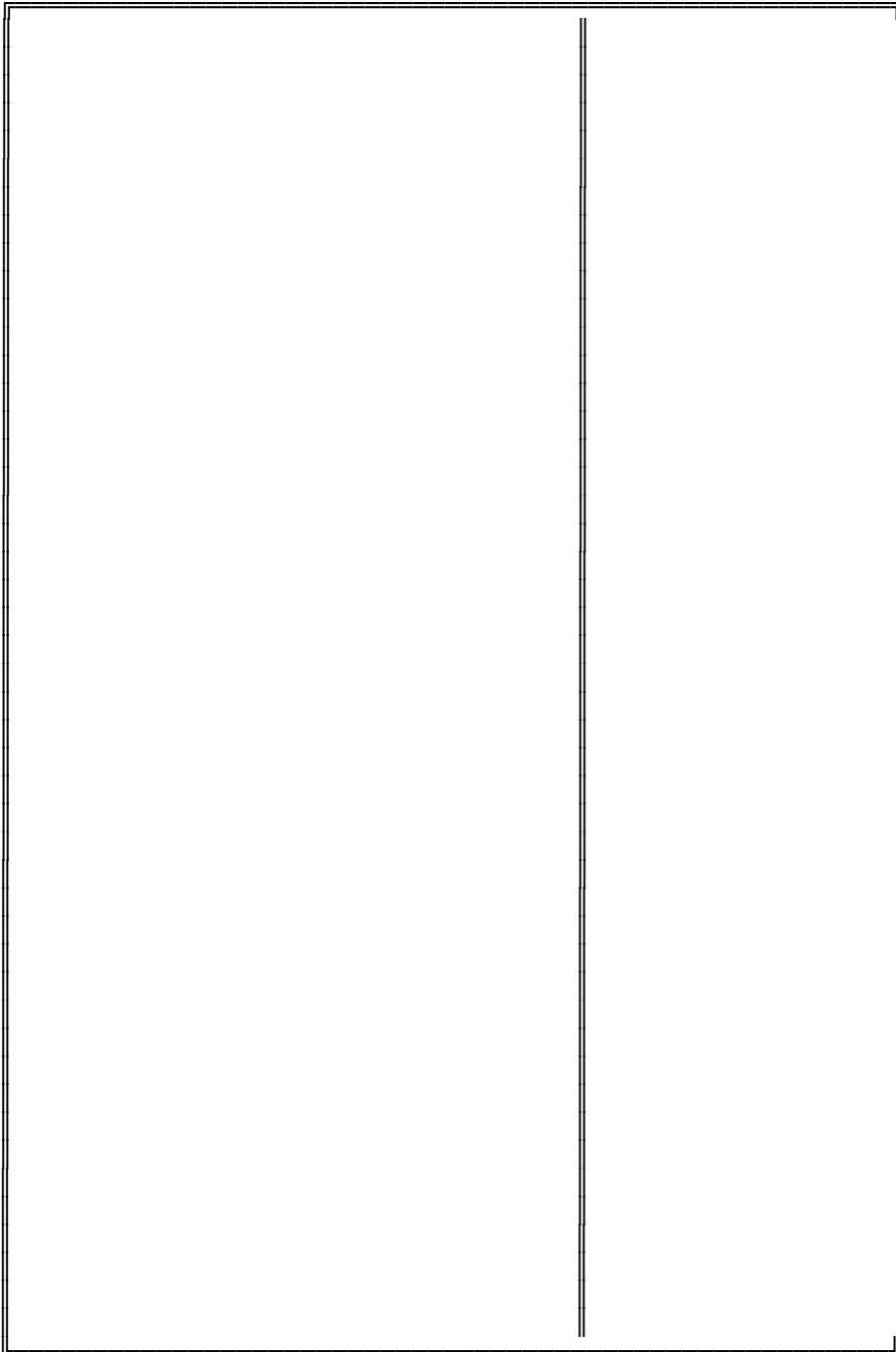


Figure 8: The paintings at Riverside



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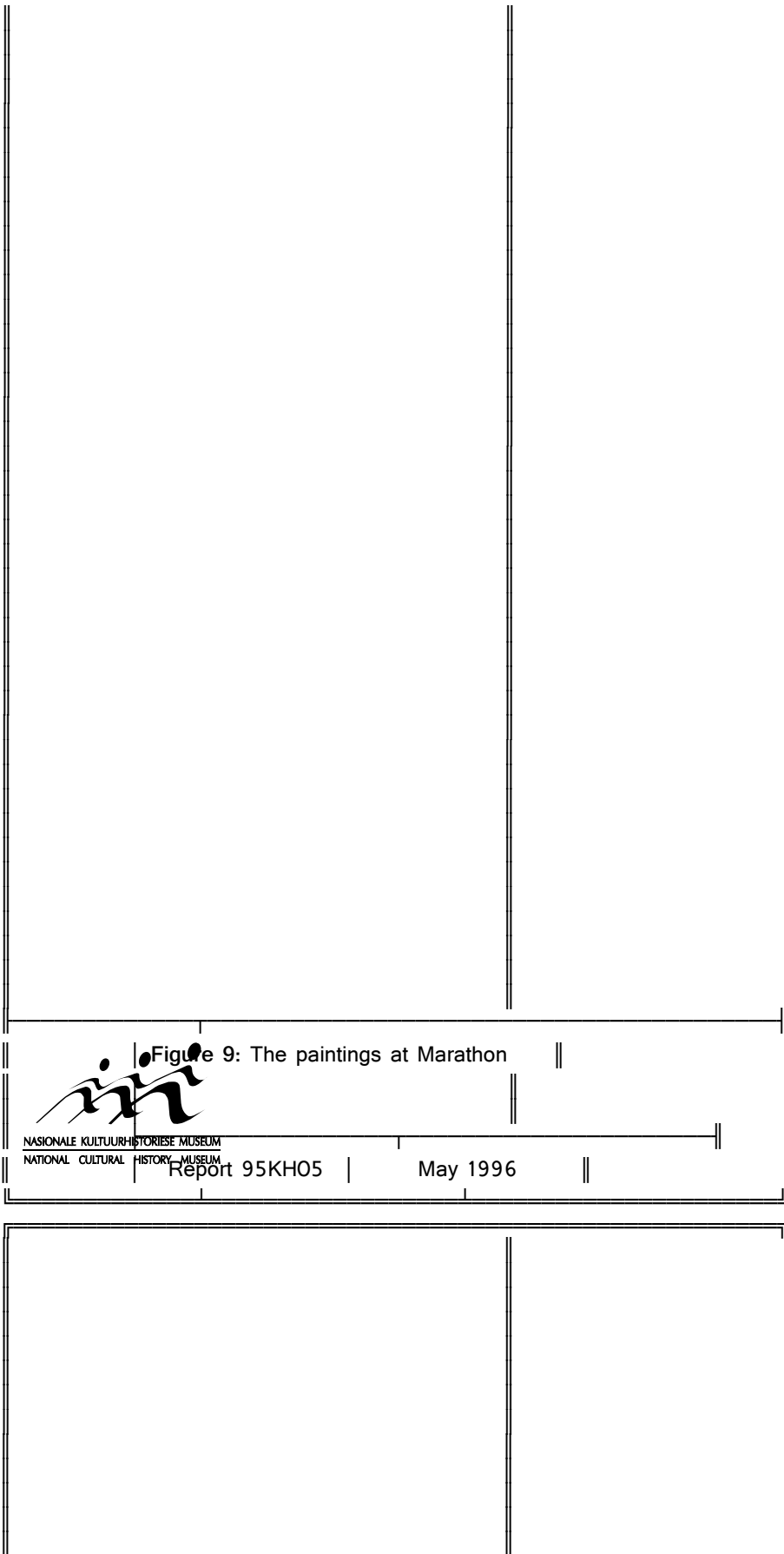
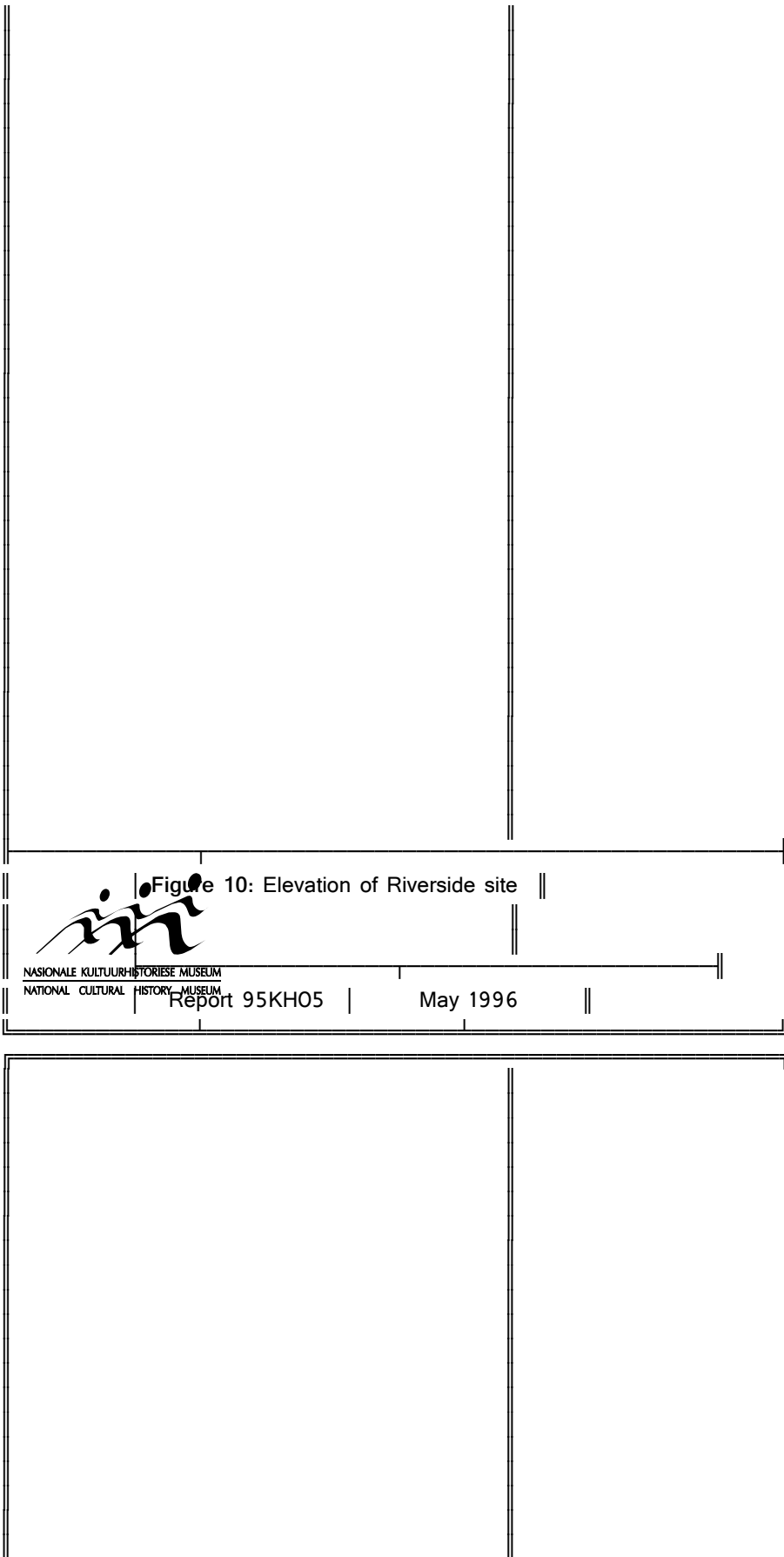


Figure 9: The paintings at Marathon

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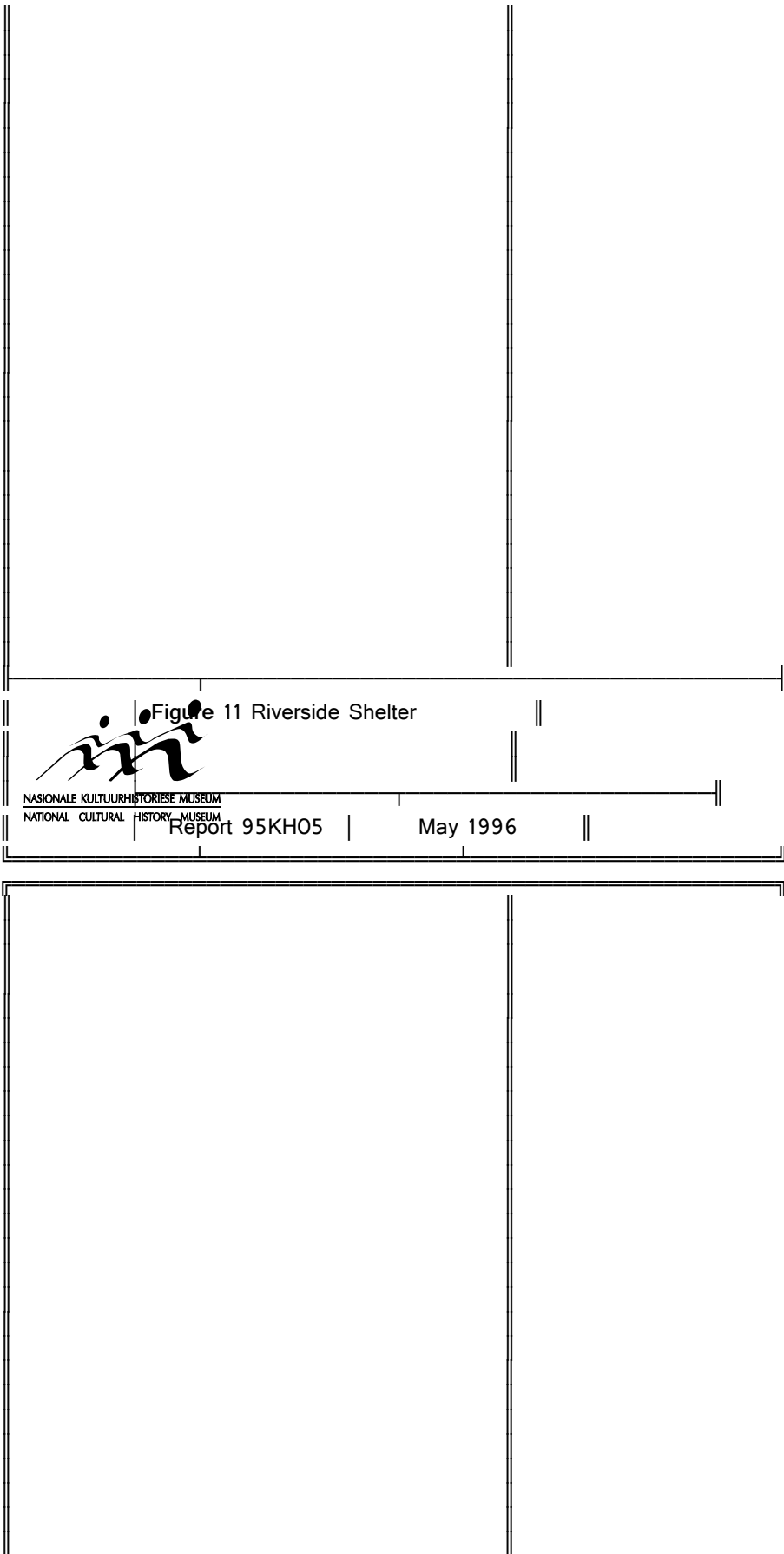
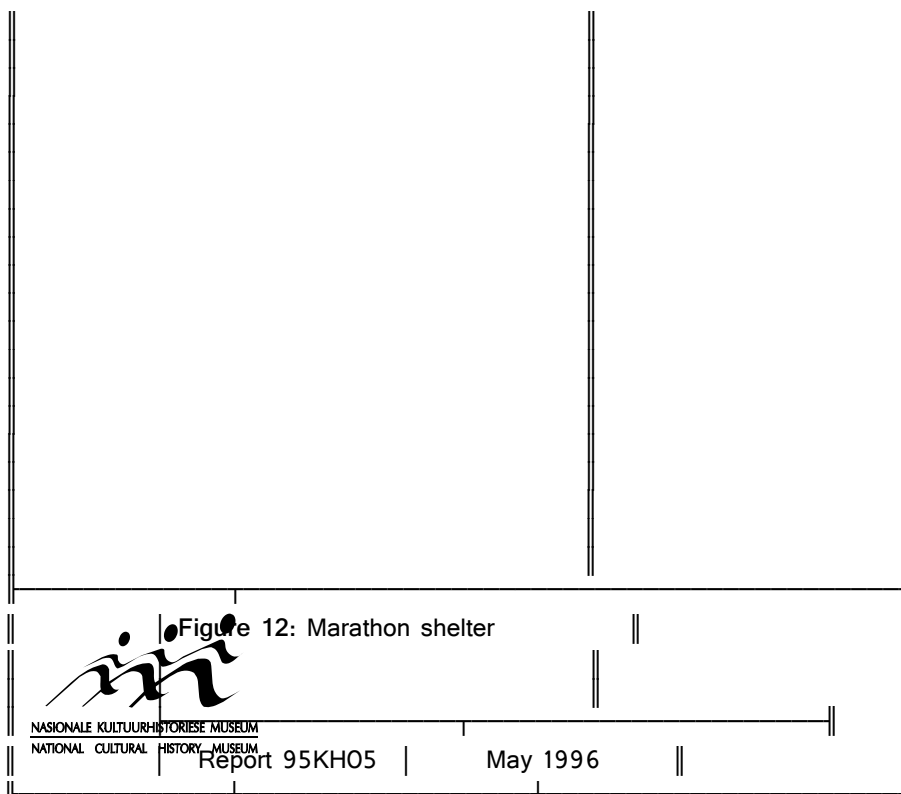


Figure 11 Riverside Shelter

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APPENDIX 1: General factors which influence the rate of deterioration of rock paintings

- The weathering process of the rock art is determined by the chemical reaction in the base-rock, the pigment, and the contact zone between pigment layers and the base-rock.
 - It is further linked to the general climatic condition, orientation of the site, local physical environment and specific micro-climate.
 - This is a complex problem, and while the application of a dripline reduces surface moisture, it cannot have any effect on moisture from within the body of the rock.
 - The nature and frequency of the rainfall plays the most important part.
 - Temperature extremes are a contributing factor, and research has indicated that exposure to extreme heat and sunlight may also impact detrimentally on the art.
- Hughes & Watchman (1983) states that under certain conditions ultraviolet radiation may cause the oxidation of minerals in pigments and that certain ochres are susceptible to alteration and fading or colour change with the chemical alteration of their constituents and the leaching of the ferric ions.
- Masking by algae and lichen can cover the art.
 - Damage due to plant growth and especially tree roots can be quite extensive.
 - Bees, wasps and birds nests can cover and obliterate painted surfaces, and remove the surface crust.
 - Animal agencies and acid breakdown of the rock-face due to hyrax urine is locally significant.
 - Further deterioration by animal agencies, such as abrasion and dust

- covering where livestock can gain access to the art sites.
- Deterioration associated with visitors to the site unfortunately constitutes the final, and in many cases the most detrimental cause of degradation.