# A BRIEF HERITAGE SURVEY OF THE /AI-/AIS RICHTERSVELD TRANSFRONTIER PARK (ARTP)

JULY 2013

# A Brief Heritage Survey of the /Ai-/Ais Richtersveld Transfrontier Park

**July 2013**

# Contents

## List of Tables



## List of Figures

## List of Maps

## Acronyms

| | |
|---|---|
| AHSGP | /Ai-/Ais Hot Springs Game Park |
| ARTP | /Ai-/Ais Richtersveld Transfrontier Park |
| BLD | Bloeddrift |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna & Flora |
| CLM | cultural landscape mapping |
| EIA | Environmental Impact Assessment |
| ESA | Early Stone Age |
| GIS | Geographical Information System |
| GPS | Global Positioning System |
| ICMP | Integrated Conservation Management Plan |
| IUCN | International Union for Conservation of Nature |
| JKB | Jakkalsberg |
| LSA | Late Stone Age |
| MSA | Middle Stone Age |
| NHCN | National Heritage Council of Namibia |
| NXP | Nxodap |
| OG | Official Gazette |
| PPF | Peace Parks Foundation |
| RCBL | Richtersveld Cultural and Botanical Landscape |
| RNP | Richtersveld National Park |
| SAHRA | South African Heritage Resources Agency |
| SANParks | South African National Parks |
| UCT | University of Cape Town |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| WHS | World Heritage Site |

## Summary

The /Ai-/Ais Richtersveld Transfrontier Park, hereafter referred to as ARTP, has significant geological and palaeontological, natural, archaeological and architectural heritage. The area also has a substantial and complex historical and cultural heritage. Fully mobilised, this heritage would add substantial value to tourism in the ARTP and assist local people with the development and protection of their culture. The tourism potential of the ARTP as a whole could be expanded by fully unlocking the tourism potential of all heritage categories in the ARTP.

However, the heritage is substantially understudied and insufficient information is available about specific sites and heritage types. Particularly the intangible heritage is also extremely vulnerable and rapidly disappearing in some instances. Urgent action is needed to record such vulnerable categories of heritage as a pre-requisite for developing meaningful strategies for their protection and development.

There is room for improvement in management plans of the ARTP and of the constituent parks by enhancing the focus on certain categories of heritage and highlighting their tourism value, and then to make provision for protection of certain heritage assets that may be in danger. A good example of this is the palaeontological and geological heritage about which little information is available. There is also a clear need for a more focused approach to the archaeological and intangible heritage of the ARTP.

The Nama cultural heritage is central to the ARTP. It is linked closely to other important characteristics of the cultural landscape such as the historic presence of the San and the Afrikaans linguistic heritage of the region, particularly that of Khoe-Afrikaans. Also important are the colonial layers of the cultural landscape, which includes early and later farmers and important historical events relating to German colonialism, the South African War and the First World War.

Dealing adequately with the complexity of the ARTP's heritage over time would require an in depth and sensitive cultural landscape approach. Transfrontier cultural exchange should be promoted as this would enable the people of the region to achieve cultural critical mass. A pre-requisite for this is the further development of the management plans of the subsidiary parks to reflect additional heritage objectives. The parks need to be much more pro-active about heritage conservation and development. For the region that straddles this

part of the South African and Namibian border to gain the realisation of its full potential, there has to be a substantive rethinking of the essence of the ARTP. Together with the World Heritage Site (WHS) that borders the Richtersveld National Park (RNP), we can see the unfolding of a truly spectacular conservation complex on a global scale with outstanding universal value.

This report represents a first step towards developing a focused and coherent strategy for heritage protection and development in the ARTP. Further work is urgently needed, starting with ground-level surveys, and further literature reviews, thereby to develop high-resolution inventories, and identifying sites on the ground. There is a strong need for intensive cultural landscape mapping (CLM) as this will provide the foundation for further development of this heritage. Further steps would involve assessing vulnerabilities, developing management objectives, and implementing these.

The current study, brief as it may be, illuminates the region once again as a cohesive entity that from a heritage point of view is divided by an artificial administrative border dating from colonial times. The heritage seamlessly straddles the border[1], with the core heritage included in the two parks as well as the Richtersveld Cultural and Botanical Landscape (RCBL), inscribed on the World Heritage List, its designation as a World Heritage Property being largely based on its cultural attributes. It is highly recommended that the feasibility of expanding this WHS across the border so that it will include both parks.

A world class transfrontier WHS can be established relatively easily through a serial nomination process that will extend the existing Richtersveld Cultural and Botanical Landscape (RCBL) northward into the adjacent Richtersveld National Park (RNP), and then into Namibia. This would give impetus to the overall heritage development and conservation process in the region, uncoordinated as it may be at present, and will help to develop the full potential of this extremely valuable and interesting eco-cultural region.

The ultimate benefits of these efforts will depend on the participation of the people living in and around the ARTP, as well as those engaged at all levels in the management and operation of the parks. Heritage conservation should therefore begin and end with them.

[1] See also: EcoAfrica (2005) Nomination for the Richtersveld Conservancy as a World Heritage Site. UNESCO.

# 1. Introduction

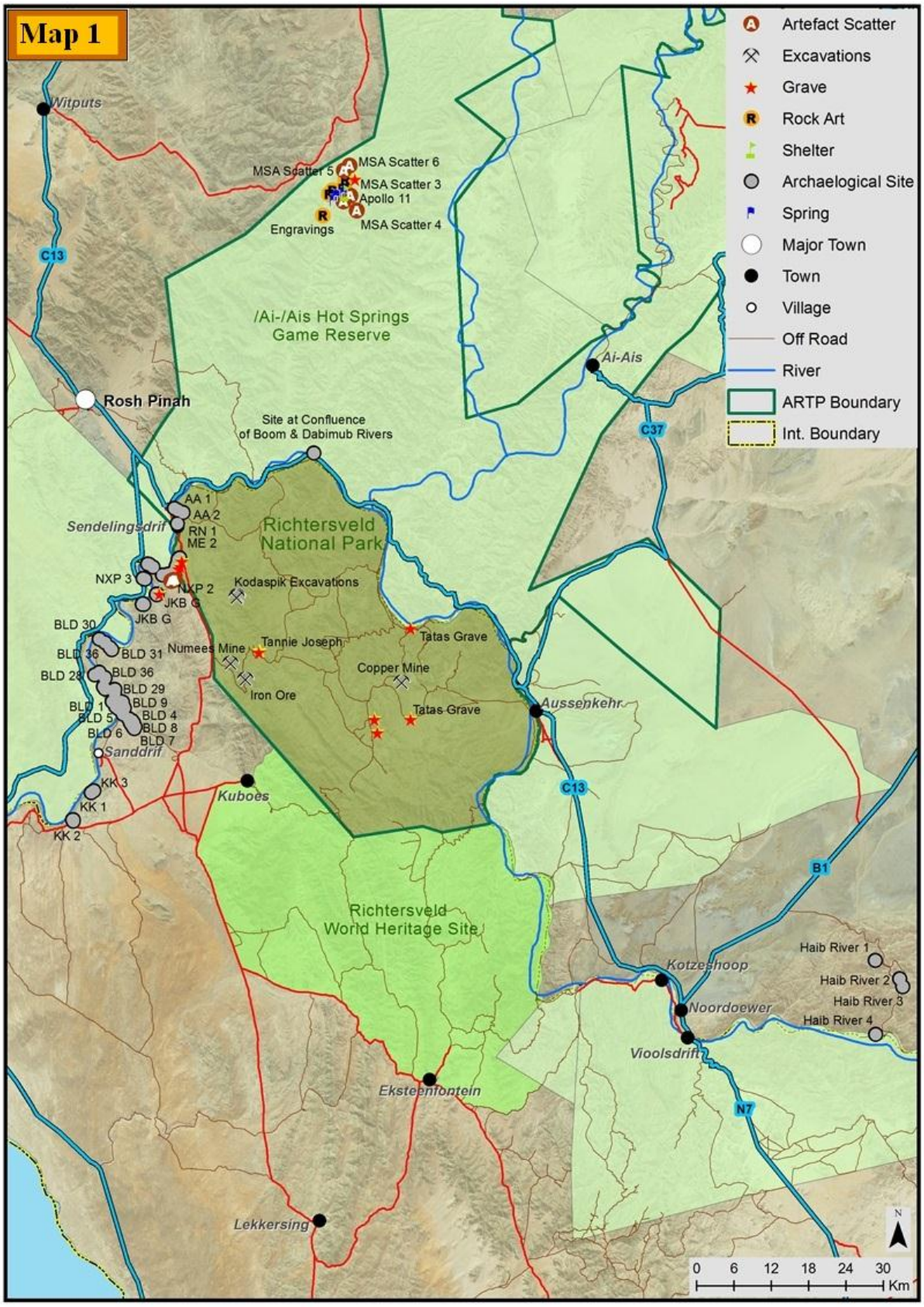
This is the result of an initial[2] survey of heritage resources in the ARTP. The survey focus on archaeological, paleontological, natural and geological heritage as well as places and buildings of historical significance. Intangible heritage was covered as an aspect that binds together all the different types of heritage into a coherent whole. The National Heritage Council of Namibia (NHCN), the South African Heritage Resources Agency (SAHRA), and the South African National Parks (SANParks) Heritage Unit were consulted as part of this process.

A 'first approximation' categorised inventory of heritage was developed and forms part of this report. Heritage items are briefly described, focusing on heritage significance, their legal status in terms of Namibian or South African heritage legislation, and the location of the heritage in as much as this was possible to determine, and here and there an assessment of tourism potential where appropriate. Proposals were made for management strategies where necessary.

The respective management plans for the /Ai-/Ais Hot Springs Game Park (AHSGP) and the Richtersveld National Park (RNP), hereafter referred to as /Ai-/Ais Hot Springs Game Park (AHSGP) and Richtersveld National Park (RNP) respectively, were further reviewed to identify heritage resources explicitly catered for in these plans, to assess if any gaps exist in terms of adequate provisions for management, protection and promotion of heritage resources, and to propose remedies to address such gaps. The heritage survey and the assessment of management plan gaps provide the basis for a short set of recommendations.

The survey first considers geological and paleontological heritage, moves on the natural heritage, archaeological heritage, and architectural heritage, reflects on management considerations, make brief recommendations and conclusions. Map 1 presents an initial and broadscale map of heritage in the ARTP; which can be expanded on through time.

[2] The survey was essentially desktop with only four days allocated for field work, and a very small budget. It also covered grey and unpublished literature. The heritage survey was implemented by EcoAfrica Environmental Consultants, who subsidised the project in partnership with International Knowledge Management (IKM; www.ikm.org.za) by conducting more field visits to specific sites than was allocated in the budget.


Map 1
Artefact Scatter
Excavations
Grave
Rock Art
Shelter
Archaelogical Site
Spring
Major Town
Town
Village
Off Road
River
ARTP Boundary
Int. Boundary
Witputs
MSA Scatter 5
MSA Scatter 6
MSA Scatter 3
Apollo 11
MSA Scatter 4
Engravings
C13
/Ai-/Ais Hot Springs
Game Reserve
Ai-Ais
Rosh Pinah
Site at Confluence
of Boom & Dabimub Rivers
C37
AA 1
AA 2
Sendelingsdrif
RN 1
ME 2
Richtersveld
National Park
NXP 3
NXP 2
Kodaspik Excavations
JKB G
JKB G
BLD 30
BLD 36
BLD 31
Numees Mine
Tannie Joseph
Tatas Grave
BLD 28
BLD 36
Copper Mine
BLD 29
BLD 9
Iron Ore
BLD 1
BLD 5
BLD 4
BLD 8
BLD 6
BLD 7
Tatas Grave
Aussenkehr
Sanddrif
KK 3
KK 1
KK 2
Kuboes
C13
B1
Richtersveld
World Heritage Site
Haib River 1
Haib River 2
Haib River 3
Haib River 4
Kotzeshoop
Noordoewer
Vioolsdrift
Eksteenfontein
N7
Lekkersing
N
0 6 12 18 24 30
Km

# 2. Geological and paleontological heritage

## 2.1. Introduction

The rock formations of the ARTP count among the oldest in southern Africa; indeed, the Nama Group of the /Ai-/Ais Hot Springs Game Park (AHSGP) section are considered internationally important as a definitive example of the late Proterozoic era. The geology of the ARTP determines the paleontological heritage of the park and, in combination with climate, underpins the natural beauty of the region. Intermittent geological research has taken place in the ARTP region over the past decades and there is renewed interest in the region as a significant geological area.

For much of the Richtersveld and Southern Namibia, the geology combined with the effects of the cold Benguela Current periodically transforms the region into to a magical land of mists, isolated mountain ranges and the richest desert in the world in terms of biodiversity.

**Figure 1: Fog rolling in from the ocean to the west of the ARTP in Namibia**

It is those attributes of the landscape that help support some of the earliest cultures in Africa, and to this day support the fast-dwindling transhumant way of life of the Nama people.

There are many other treasures, including ones that have their origins in outer space, as parts of the region are rich in meteors, including the craters that some left behind. The National Heritage Act, 2004 of Namibia and the National Heritage Resources Act, 1999 of South Africa determine that all palaeontological objects and meteorites are the property of the State and any person who discovers them are expected to notify the appropriate authorities. These Acts do not preclude private ownership of palaeontological or meteorite material.

## 2.2. Geological heritage

The Namaqualand Metamorphic Province, a subgroup of the Orange River Group serves as the basement rock for the entire region. These are mineral rich rocks that formed through volcanism, and which were subsequently subjected to erosion and intense folding, deformation and volcanic intrusion. The ages of these formations range from 700 million to 1 billion ago, placing it in the late Proterozoic to early Cambrian eras (Almond & Pether 2009).

The Namaqualand Metamorphic Province surfaces in the north-eastern section of the Richtersveld as the “Richtersveld suite” and includes the Klipneus and Paradys formations, the Roseintjieberg formations and the De Hoop subgroup. Rosyntjieberg has good examples of ripple marks and geological cross-bedding.

These formations are bounded on both sides by the more recent igneous intrusions of the Swartbank, Kuboes, and Vioolsdrift suites as well as the Tatasberg complex. The Stinkfontein formation to the west of the Richtersveld suite consists largely of sedimentary rock mixed with pyroclastic elements.

The /Ai-/Ais Hot Springs Game Park (AHSGP) section is more complex. The Bremen Complex at the northern end of the Kuboes line of intrusives is a composite formation with material from both the Richtersveld and Kuboes suites. It extends well into southern Namibia, intruding into the Nama Group rock formations in the /Ai-/Ais Hot Springs Game Park (AHSGP) section of the ARTP as dykes. The Nama Group rock formations are younger than the Namaqualand Metamorphic Province and date to the early Cambrian Era (544-500 million) (Almond & Pether 2009; Germs 1974; Middlemost 1969).

The violent geological history of the region has produced among the most stunning of landscapes and natural vistas in the world, the features of which are unusually visible as a result of the semi desert conditions. The ARTP is a veritable open-air geological museum, which is increasingly attracting attention from geologists worldwide and is an ideal geotourism destination (Almond & Pether 2009).

**Figure 2: Examples of visible geological formations in the ARTP**

Well-known geological sites inside the ARTP include the Fish River Canyon and the confluence of the Fish and the Orange River, the /Ai-/Ais Hot Springs, and include smaller features like Die Toon (The Toe) and die 'Hand van God' (the Hand of God). Sites in the immediate vicinity of the ARTP include Wondergat (Wonder Hole) in South Africa and the Roter Kamm (Red Comb) Meteorite Crater in Southern Namibia west of the ARTP.

**Figure 3: Interesting geology in the Huns Mountains**

However, this list scratches the surface. The description of geological formations of the ARTP have taken place mainly in academic or mining circles and little has been done to identify and describe geological features to the public in an accessible manner. This remains a key gap. Heritage can only be appreciated if it is known.

## 2.3. Palaeontological heritage

Little research on the palaeontological heritage of the ARTP is available in the public domain. However, the palaeontologist Dr John E. Almond (pers. com) has recently been conducting a study of the palaeontology of the Northern Cape and more recently on the Richtersveld section of the ARTP, which may soon be available. The title of the project is: "Fossil heritage of the Richtersveld National Park (Precambrian – Palaeozoic): to document key features of the palaeontology and geology of Precambrian to Palaeozoic sediments within the Richtersveld National Park."

The geology of the area is characterised by two main rock formations: The doleritic Namaqua Metamorphic Province rock formations and the Nama Group formations. The Namaqua Metamorphic Province rock formations have been heavily metamorphosed, resulting in poor fossil preservation. These rock formations are also largely Precambrian in origin, which rules out the fossils of complex vertebrates. However, no such fossils have yet been found in the Northern Cape (Almond pers. com; Almond & Pether 2009; Crimes & Germs 1982).

The Nama Group formations are complicated by intrusions, but have not been reworked as thoroughly as the Namaqua Metamorphic Province rocks. They are therefore more likely to contain better preserved body fossils. They are also younger, covering the late Proterozoic and reaching into the early Cambrian Eras, and are therefore more likely to contain more complex and diverse fossils (Almond & Pether 2009; Crimes & Germs 1982).

The kinds of fossils that one could expect include Ediacaran shelly invertebrates, trace fossils, calcified algae, agglutinated tubes, early metazoans (possible sponges etc.), organic-walled microfossils, vendotaenid 'algal strings', stromatolites and other structures. There is an abundance of Early Cambrian trace fossils in the Fish River. One could expect key successions for body and trace fossils crossing the critical Precambrian and Cambrian boundary; the earliest-known fossil shells in the world; classic giant stromatolites and excellent trace fossils. Vendobiontans should occur, but have not yet been recorded (Almond & Pether 2009; Crimes & Germs 1982).

These fossils are regarded as palaeontological extremely significant and vulnerable. Heritage Impact Assessment (HIA) is considered mandatory should any mining or excavations or other damaging activities be planned in this region (Almond & Pether 2009).

## 2.4. Sites of interest

**Fish River Canyon**

The Fish River Canyon is located in the Karasberg District in Namibia about 60 km west of Grünau and was proclaimed a National Monument in 1962[3]. It is the biggest canyon in Africa with among the oldest rock formations in the subcontinent. At a length of 160 km, a width of up to 27 km, and a depth of up to 550 m, it is also the second biggest canyon in the world and contains breath-taking views and landscapes. The canyon started forming some 350 million years ago when water started cutting into the soft underlying rock formationswhich has a complex geological history. Especially the younger formations contain large numbers of fossils and have international scientific significance (Almond & Pether 2009). There are at least two major fountains in the canyon, the best-known of which is at /Ai-/Ais. There are several upstream. As the second-most visited tourism destination in Namibia it has substantial and growing tourism potential.

**Figure 4: Fish River Canyon**

**Ai-Ais Hot Springs**

Ai-Ais Hot Springs is located in the /Ai-/Ais Hot Springs Game Park (AHSGP). The name means, “burning water” in Nama and refers to the sulphurous hot springs, which arise as a result of a geological fault in the area. Its tourism potential is high, though overdevelopment poses a distinct risk.

[3] OG 2419 No. 133 (1962)

**Hand van God (Hand of God)**

**Figure 5: Hand van God**

The Hand van God is a rock formation of about 2m near Sendelingsdrift in Richtersveld that looks like a "godly" handprint. It has minor tourism potential in isolation but adds significantly to the sense of place of what many has described as an 'Old Testament Landscape'. Due to it being easily accessible, it is theoretically also vulnerable to vandalism.

**Confluence of the Fish River and the Orange River**

The confluence of the Fish and Orange Rivers is located on the border between the Richtersveld National Park (RNP) and the /Ai-/Ais Hot Springs Game Park (AHSGP). It is a significant visual geological phenomenon, the joining of two substantial river systems on a geological dividing line. The entire area is under the control of the park management on either side of the border, and

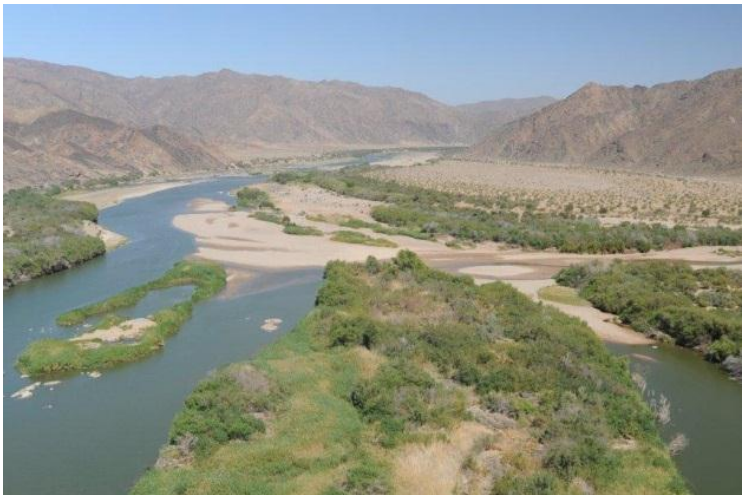


**Figure 6: Confluence of the Orange River and the Fish River**

therefore covered by the respective Park and overall ARTP management plans. The confluence should be absolutely protected from any developments that could detract from the heritage value.

**Die Toon (The Toe)**

Die Toon is an isolated Tatasberg pluton, or granitic intrusion in the Richtersveld section of the ARTP (28° 18'40''S, 17° 17'00''E). The softer rock formations around it have eroded, leaving the upright columns to decay at a more languid pace. It is one of the most striking scenes in the Richtersveld and has moderate to high tourism potential.

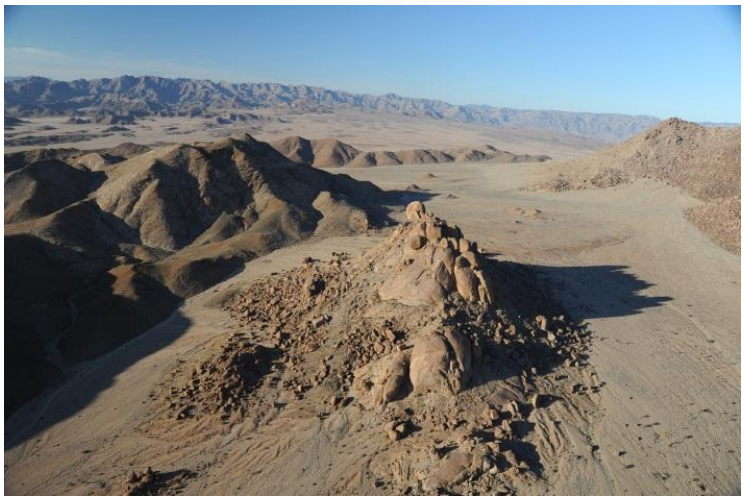


**Figure 7: Die Toon**

**Roter Kamm Meteorite Crater**

Roter Kamm Meteorite Crater is located in the southernmost section of the Namib Desert 50 km west of Rosh Pinah outside the ARTP. The crater is 2.5 km in diameter and 130 m deep. It is estimated to be in the region of 3.7 million years old and well preserved, making it a good geotourism destination.

**Wondergat**

The Wondergat (Mystery Hole) is a limestone sinkhole on Cornellskop, located in the Richtersveld Cultural and Botanical Landscape (RCBL) WHS and adjacent to the ARTP. It has a shaft of some 4.5m in diameter and is almost perfectly circular as the sinkhole was widened at some stage in the past in a mining attempt, as is witnessed by small heaps of soil near it that clearly came from the hole. The shaft goes straight down into the earth for about 20 m and thereafter continues deeper into the mountain at an angle. Thereafter the tunnel continues at an angle. Like all heritage features of the ARTP, the tourism potential of the site is limited to specific user groups, unless it forms part of a wider tourism package. Local people have mystical or spiritual associations with Wondergat (see intangible heritage).

## 2.5. Conclusion

The ARTP has a substantial and internationally significant geological and palaeontological heritage, making it an ideal geotourism destination. Geotourism is a growing branch of the tourism industry.

However, the geological and palaeontological research that has taken place to date is not accessible and little has been done to make information available to the general public. There is scant interpretation, for instance at the lookout point in Hobas. Recommendations flowing from the desktop study are as follows:

- A detailed field survey of geological and palaeontological heritage. The survey could identify sites that would best demonstrate important geological features and/or palaeontology;
- The preparation of accessible materials for the communication and interpretation of this heritage to the general public and to the communities in the wider ARTP region. A minimal start can be made by preparing and printing an orthophoto map that clearly indicate key points with short write-ups on what they are;
- The development of guidelines for the protection of geological and palaeontological heritage (this will be even more necessary once such points have been identified, for instance restricting 4 x 4 vehicletraffic to access roads);
- The training of community guides. While the ARTP does not rely on guides at present, this being a largely self-drive destination, the training of guides in natural history and geology as well as palaeontology should be considered.

Developing the geological and palaeontological heritage of the ARTP could open up new tourism niche markets, thus enhancing the tourism potential of the region as a whole.

## 2.6. References

Almond, type J. & Pether, J. 2009. Palaeontological heritage of the Northern Cape. SAHRA Palaeotechnical Report. March.

Eglington, B.M. 2006. Evolution of the Namaqua-Natal Belt, southern Africa: A geochronological and isotope geochemical review. Journal of African Earth Sciences 46:93-1 11.

Germs, G. 1974. The Nama Group in West Africa and its relationship to the Pan-African Geosyncline. The Journal of Geology. Vol. 82, No. 3. May.

Crimes, T.P. & Germs, J.B. 1982. Trace fossils from the Nama Group (Precambrian-Cambrian) of Southwest Africa (Namibia). Journal of Palaeontology, Vol. 56, No. 4. Jul.

Middlemost, E.A.K. 1969. Subvolcanic complexes of Namaqualand and southern South-West Africa. Bulletin Volcanologique, Vol. 22, Issue 2: pp. 541-548.

Odendaal, F, Suich, H. & Rojas, C.V. 2007. Richtersveld: the land and its people. Struik Publishers, Cape Town.

Also see "Simplified geology of the Northern Cape Province": http://www.geoscience.org.za/index.php?option=com_content&view=article&id=341:simplified-geology-of-the-northern-cape-province&catid=68:more-on-northern-cape-region&Itemid=449.

# 3. Natural heritage

## 3.1. Introduction

The ARTP is currently the largest officially proclaimed area for the protection of the Nama Karoo and Succulent Karoo biomes and falls on a climatic transition zone between winter and summer rainfall. It is the most species-rich desert ecological system in the world (Court 2000; Barkhuizen 1978; Cowling & Pierce 1999; Namibia Nature Foundation; South Africa Botanical Institute). Its natural heritage is here followed up through three main themes: the ARTP as a centre of endemism, the unusual wildlife adaptations to the dry environment, and iconic species and landscapes (World Database on Protected Areas).

Biodiversity and the endemism are aspects of natural heritage. For that reason the ARTP as a centre of endemism is given attention below. However, the notion of natural heritage extends beyond biodiversity and endemism and needs to be elaborated further. This section therefore also mentions wildlife adaptations to this arid environment as an aspect of natural heritage; so to the notion of iconic species and botanical landscapes (Odendaal et al. 2007).

Impressive examples of natural heritage make people feel in a certain way and contribute to an overall sense of place. This aspect of natural heritage has equally important aesthetic and/or emotional elements that go beyond the concepts of endemism and biodiversity.

## 3.2. The ARTP as a centre of endemism

The ARTP serves as the core of the !Gariep Centre of Endemism, a subset of the Succulent Karoo that contains at least 2700 species of plants, 560 of which are endemic or near endemic. The Richtersveld alone contains 350 of these species and the /Ai-/Ais Hot Springs Game Park (AHSGP) at least 100, collectively coming to more than 450 endemic plant species. The Richtersveld is further home to the most diverse and dense lichen fields in the world. Collectively the ARTP contains at least 1700 plant species (Court 1981, 2000; Cowling & Pierce 1999, World Database on Protected Areas; SANBI).

The Richtersveld section of the ARTP falls largely within the Succulent Karoo, with pockets of Desert and Fynbos biome vegetation, the latter as botanical “islands” at high altitudes. The /Ai-/Ais Hot Springs Game Park (AHSGP) section of the ARTP has Nama-Karoo type vegetation patterns east of the Fish River, and Succulent Karoo type vegetation to the west

up to the Sperrgebiet, with Desert biome intrusions (Court 1981, 2000; Cowling & Pierce 1999, Odendaal et al. 2007).

The Succulent Karoo as a whole is the first entirely arid region in the world to be recognised as a "biodiversity hotspot": a biogeographic region with significant biodiversity that is threatened with destruction (www.sanbi.org). More than a third of all succulent species on Earth are found in the Succulent Karoo, making it the arid region biome with the greatest botanical diversity and the most succulent vegetation types on the planet. It has more than 5000 plant species some 40% of which are endemic. Some 18% of the endemic species of plants are endangered, largely because they occupy extremely small ranges and are threatened by overgrazing, mining and illegal harvesting (Court 1981, 2000; Cowling & Pierce 1999, Odendaal et al. 2007; Van Jaarsveld & Van Wyk 2000).

The broken and diverse geology of the ARTP is described further in the literature cited above and its steady dry climate provides the substrate of the park's stunning biodiversity. There a long evolutionary history punctuated by episodes of partial submersion under the sea of the coastal areas, which allowed certain island communities to develop and promoted speciation. Many of the endemic species are therefore limited to small areas, often on the mountains where the rainfall is higher and biotic diversity at its greatest (Odendaal et al. 2007).

The ARTP is also home to at least 56 species of large mammals, including leopards, Hartmann's mountain zebra, springbok, gemsbok, red hartebeest, kudu, klipspringer, gemsbok, ostrich, ground squirrel and suricate. The /Ai-/Ais Hot Springs Game Park (AHSGP) also contains a relict population of the grey rhebok (*Pelea capreolus*). The ARTP further contains 194 bird species and a large variety of lizards (35 species) and snakes (16 species). The Succulent Karoo is also a centre of diversity and endemism for reptiles and invertebrates, including arachnids and beetles, and many species are endemic to the ARTP (Odendaal et al. 2007).

The ARTP can legitimately be referred to as a stunning and most unusual assemblage of natural heritage elements. The wider landscape also constitutes a highly threatened heritage and is extremely vulnerable to short term forms of exploitation like open cast mining and other extractive industries. There is a strong need to highlight the exceptional nature of this biological heritage and to promote understanding of its value.

## 3.3. Wildlife adaptation to the arid environment

The ARTP is an ancient landscape, adjacent to the oldest desert on the planet, the Namib. Both animals and plants have therefore had an opportunity to adapt to the arid conditions in a variety of ways, a special aspect of the natural heritage of the ARTP. Some species have developed truly extraordinary coping strategies.

While some plants have large storage cells on the surface of their leaves which swell quickly when exposed to moisture, others store the water in underground bulbs. Many plants also have white scales that reflect light and protect their moisture content. The unique psammophorous plants grow sticky hair that trap sand grains to form a protective shell against desiccation by the wind. Others like the botterboom (butter tree or *Tylecodon reticulatus*), which is highly characteristic of sections of the Richtersveld, protects its moisture from plant eaters with a prickly lattice around the leaves and poisonous sap (Odendaal et al. 2007).

**Figure 8: Hartmann's Mountain Zebra in the western section of the AHSGP**

Amphibians, reptiles, insects and arachnids have also developed special adaptations. The Namaqua rain frog (*Breviceps namaquensis*) requires no water during the tadpole stage and the carapace of the tortoise beetles (*Hispinae*) is covered with a waxy sheen to reduce water loss. The Namib web-footed gecko (*Pachydactylus rangei*), lives along the Orange River withwebbed feet adapted to walking over shifting sand and large eyes adapted to spotting insects at night. Also highly adapted is Austen's dune gecko (*P. austeni*) (Odendaal et al. 2007; Cowling & Pierce 1999).

These special adaptations of both plants and animals represent an immensely interesting aspect of natural heritage that could be communicated to visitors and local people alike more effectively. Like all other aspects of heritage, this needs to be packaged in an accessible and understandable manner, using people's language of choice.

**Figure 9: Camouflage of a Richtersveld chameleon**

## 3.4. Iconic species and botanical sites

A number of species and associated can be described as true icons of the ARTP. This includes plants like the halfmens, various tree aloes, the *Hoodia*, the Pearson's aloe, and a fantastic array of lichens.

**The Halfmens**

The halfmens (*Pachypodium namaquanum)* meaning "half human" in English, is the most iconic plant of the ATRP. Halfmens grows up to 2 to 3m and occurs on shady southern slopes of rocky hills in the mountainous part of the Park, mainly in the Richtersveld. They are tall, and lean slightly towards the north. When silhouetted against the sky they give the impression of human figures steering towards the north. According to local Nama legend the halfmens are the last members of a tribe that lived in the northern area of the southern Namibia a long time ago. They crossed the Orange River after a terrible clash with invaders and were dispersed in the hills of the Richtersveld where they were turned into plants. Since then, they have been staring longingly to the north of the land of their ancestors (Odendaal et al. 2007).

**Figure 10: A Halfmens in the Richtersveld**

**Quiver trees**

The most well-known endemic plants in the ARTP are three species of aloe tree, the largest of the succulent plants. These are the quiver tree proper (*Aloe dichotoma*), baster quiver tree (*A. pillansi*) alternatively known as basterkokerboom or giant aloe, and the maiden's quiver tree (*A. ramosissima*), which is regarded by some as a subspecies of *A. dichotoma*. Most of these species, especially the baster quiver trees are highly threatened. These tree aloes are called quiver trees because the early San use their branches to carry their arrows, slung over the shoulder on a strap of game leather. the baster quiver tree is one of the world's most endangered plants. It can grow up to 12m high and live to be hundreds of years old. Aussenkehr on the periphery of the (/Ai-/Ais Hot Springs Game Park) AHSGP section of the ARTP contains a large number of these trees, creating a very special landscape.

NB: Cornellskop in the Richtersveld contains the largest population of the baster quiver tree in the ARTP (Odendaal et al. 2007; Barnard 1998; Van Jaarsveld & Van Wyk 2000).

**Figure 11: Quiver Tree in the Richtersveld**

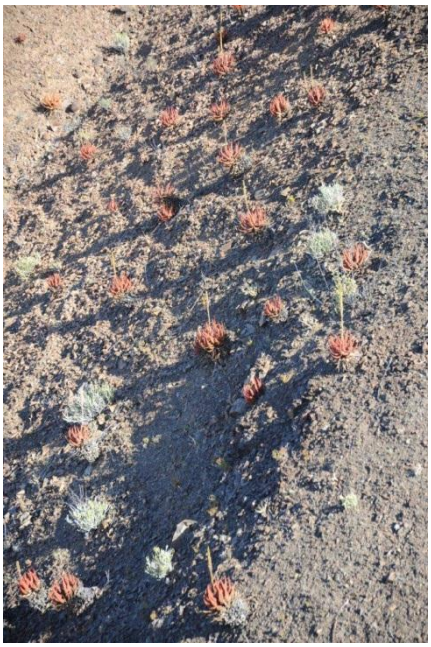
**Hoodia gordonii**

*Hoodia gordonii* is a member of the plant family *Apocynaceae* and a very characteristic species in much of the ARTP. These succulents grow up to half a metre high and have flesh coloured flowers that smell like rotten meat. This attracts flies, which act as pollinators. The Nama have used the plant to treat indigestion and small infections, while the Bushmen of the Kalahari used it to stave off hunger during long hunting trips.

South African scientists discovered the appetite suppressing abilities of the plant and isolated a molecule that they named P57. They took out a patent and sold the licence to a European pharmaceutical company. After a long legal battle the companies involved agreed to contribute profits to support the highly impoverished Bushman people scattered along the rim of the Kalahari Desert in return for using their knowledge of the plant. In the ARTP the plant is known as xhoba in Nama or bitter ghaap in Afrikaans.

Since then other commercial uses of P57, such as gastric acid reduction, have been discovered. The genus *Hoodia*, and thereby *Hoodia gordonii*, is currently listed under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Accordingly it is considered at risk of extinction and it is illegal to export it without a Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) certificate (Van Jaarsveld & Van Wyk 2000).

**Aloe pearsonii and Aloe gariepensis**



*Aloe pearsonii* is a highly localized endemic of the ARTP. It occurs at altitudes of about 300 to 1 500m, mainly in the Helskloof in South Africa, but also in the adjacent mountains across the Orange River in Namibia. Helskloof has dense colonies that colour the mountain slopes red. In more shaded ravines their colour changes to blue-green. It has no recorded local uses, but forms a very characteristic element of the ATRP landscape and is known to be a threatened species (Van Jaarsveld & Van Wyk 2000). *Aloe gariepensis* is another striking Aloe species found commonly toward the western side of the Richtersveld National Park (RNP).

**Figure 12: *Aloe gariepensis* in the Richtersveld**

## 3.5. Conclusion

From the above short descriptions of the natural heritage of the ARTP it is clear that its global standing and value in terms of tourism is indisputable. Succulents are unfortunately also easily removed and exported away from their natural habitat. Considering the large area and various entry points into the ARTP it is understandable that removal of species, in particular plants but also small reptiles, remain a threat to the conservation of the area. Precisely how these species are removed, other than through intensive vehicle searches, remains unclear. However, awareness-raising among local people (who are the 'ears and eyes' of conservation) will help, as well as prominent signs and heavy fines that may deter smugglers.

Just like in the Richtersveld there is a need for identifying and describing elements of the natural heritage similarly with ARTP as a whole in a more explicit and accessible manner.

While humans are by nature inclined to listen to stories, magnificent stories dealing with specific themes like biodiversity, evolution, wildlife adaptation, and the icons of the ARTP still need to be developed and communicated with the ARTP stakeholders and visitors. There is scope for a more focused study that aims at developing the set of stories needed to describe the natural heritage of the ARTP. These should be included in the overall route development and heritage communication strategy of the ARTP.

## 3.6 References


Barnard, P. (Ed.). 1998. Biological diversity in Namibia: a country study. Namibian national biodiversity task force. Windhoek.

Odendaal, F, Suich, H. & Rojas, C.V. 2007. Richtersveld: the land and its people. Struik Publishers, Cape Town.

Court, D. 2000. Succulent flora of southern Africa, revised edn. Balkema, Rotterdam.

Barkhuizen, B.P. 1978. Vetplante van Suidelike Afrika. Perskor, Johannesburg.

Court, D. 1981. Succulent flora of southern Africa. Balkema, Cape Town.

Cowling, R. & Pierce, S. 1999. Namaqualand, a succulent desert. Fernwood Press, Cape Town.

Namibia Nature Foundation (undated) Endemics of Namibia (online poster: www.nnf.org.na).

Van Jaarsveld, E. & Van Wyk, B. 2000. South African and Namibian succulents on the edge: the cliff face home. Aloe, Vol. 37, No. 4.

World Database on Protected Areas: www.wdpa.org.

South African National Botanical Institute: www.plantzafrica.com.

# 4. Archaeological heritage

## 4.1. Background

The archaeology of the ARTP and surrounding area is interesting, though insufficiently studied and "poorly known" (Kinahan 2003). Much of the existing material are largely academic studies and not readily available, while the grey literature is even more opaque and difficult to find.

The broad parameters for the archaeological heritage of the ARTP are set by the surrounding archaeological and cultural landscape. Sites further up the Orange River and its tributaries confirm a human presence dating back to at least 1 million years. In South Africa Early Stone Age (ESA) stone tools may be as old as 1.7 million years (Sterkfontein Caves). The oldest date in the immediate vicinity of the ARTP is at the Orange River mouth, where a large number of stone tools dating to 800,000 years BP were found (Vogelsang 1996).

The Middle Stone Age (MSA) generally dates to between 200,000 and 40,000 years. The Middle Stone Age (MSA) people are thought to be an early form of *Homo sapiens*, which later radiated out across the globe (Halkett 1999). However, no ethnic connections can be made with these material cultures (Molin 2005). The Late Stone Age (LSA) can nonetheless be associated with the people ancestral to the San (Bushmen) and Khoekhoen, hereafter referred to as "Khoe", recorded in southern Africa some 40,000 years ago (Vogelsang 1996; Van der Walt et al. 2010; Webley 1986).

Apollo 11 Cave is probably the most impressive site in the ARTP. It contains the longest late Pleistocene and Pleistocene archaeological sequence in Namibia, and the earliest examples of figurative art in Africa (circa 30,000 years old). It also has one of the most complete Middle Stone Age (MSA) and Later Stone Age (LSA) sequences in Southern Africa. Other sites in the ARTP, such as Jakkalsberg N and L in South Africa, are significant in that they date to the mid and late mid-Holocene respectively (8000 - 2000 BP). Many other sites date to the last 3000 years, up to and including the colonial era (Vogelsang 1996; Van der Walt et al. 2010; Webley 1986; UCT Archaeology Contracts Office 2001).

The ARTP's archaeological heritage remains understudied. A preliminary archaeological survey of the Fish River Canyon by Kinahan (2003) along the lower Orange River indicated that the region contains a large number of unstudied sites ranging from colonial through to the Pleistocene and earlier. A full archaeological assessment is likely to find "a large number

of small sites indicating intermittent settlement of the Orange River valley throughout the archaeological record" (Kinahan 2003). This impression is confirmed by the results of environmental impact assessment studies conducted at isolated locations in and around the ARTP (Halket 1998, 1999a, 1999b, Kaplan 2001).

Several archaeological surveys were conducted on the South African side as part of Environmental Impact Assessments (EIAs). Halkett (1999a, 199b) surveyed a large transfrontier area between Reuning and Jakkalsberg, in addition to two smaller blocks in the south, Nxodap and Bloeddrift. Halkett found a range of sites including Early Stone Age/Middle Stone Age (ESA/MSA) stone scatters and a number of pre-pastoralist encampments (pre-2000 BP). Both ancient and more modern Nama settlements tend to be located close to the seasonal river courses (Halkett 1999a).

Collectively these are significant as heritage sites in that they demonstrate occupation of the ARTP over many thousands of years. This does not mean that the same populations occupied the ARTP over this period. Early colonial farming, trading and mission stations were also scattered all along the lower orange, including the ARTP, some of which have historical importance, and is part of the archaeological heritage of the ARTP.

The National Heritage Act, 2004 of Namibia and the National Heritage Resources Act, 1999 of South Africa indicate that all archaeological objects are the property of the State and any person who discovers them are expected to report this to the relevant authorities. Private ownership is however possible. The South African National Heritage Resources Act, 1999 further states that the South African Heritage Resources Agency (SAHRA) must conserve and care for burial grounds and graves protected under the legislation, where this responsibility is not covered by any other authority. South African Heritage Resources Agency (SAHRA) must also identify and record the graves of victims of conflict and any others which it deems to be of cultural significance. They may erect and must maintain memorials and or graves. The law further prohibits various potentially harmful activities without a permit.

## 4.2 Archaeological sites on record

**Apollo 11 Rock Shelter**

Apollo 11 Rock Shelter is a significant heritage site located in the northern section of/Ai-/Ais Hot Springs Game Park (AHSGP), Namibia. The cave contains the longest late Pleistocene and Pleistocene archaeological sequence in Namibia. It also contains the earliest examples of figurative art in Africa (circa 30,000 years old). Consisting of the most complete Middle Stone Age (MSA) and Later Stone Age (LSA) sequences in Southern Africa and all important cultural units known from these eras are contained in a single sequence less than 2m in depth.

**Figure 13: Apollo 11 from the air and ground**

There are several other engraving and painting sites in the vicinity of the shelter. Ages of the engravings range from 3000 to 4000 years. Including Apollo 11, at least 6 early and 3 Middle Stone Age (MSA) sites have been identified in the canyon, as well as the remains of a number of pre-colonial herder sites have also been found. Its tourism potential is regarded as medium to substantial, and more promising if integrated into a coherent heritage tourism route (Kinahan & Schalken 2010).

Concerning management of the site, Kinahan & Schalken (2010) looks at the overall park and points out that the ARTP should manage the impact of tourism on the environment as well as resolve conflicts between tourism and other land uses over access to heritage. Management should address an appropriate method of intervention, consider spatial aspects of planning tourism, and manage visitor impacts. Management options will depend on how the cave and the heritage it contains is developed. Options include the following:

- A private sector operator takes responsibility for upkeep of the site and facilities;
- A concession agreement through a management contract, to operate and maintain the site and facilities;
- A caretaker appointed by the Ministry of Environment or other appropriate agency.

**Figure 14: Petroglyphs near Apollo 11**

Proposed protection strategies include the following:

- The excavation trenches at the cave have to be stabilized and rehabilitated before the site is used for tourism purposes;
- General documentation of the cave and the more than 20 rock art sites in the vicinity should be carried out before tourism takes place. All art should be photographed and vandalism documented;
- A management plan based on the site documentation will allow periodic audits of the rock art and archaeology. The management plan should be in a digital Geographical Information System (GIS) format;
- Access controls should be implemented and provision made for tracking of all arrivals;
- Walking routes and tracks should be demarcated, especially on sensitive surfaces, such as the engraved Dolomites, and unstable talus slopes, such as underneath the cave;
- A toilet (dry compost type) and rest area should be established near the site;
- Trained guides should accompany visitors.

(see: Kinahan & Schalken 2010)

The vicinity of Apollo 11 is truly impressive and includes beautiful canyons, riverbeds, permanent water holes, a wildlife oasis. Therefore the development of a package of two days could be considered where experts guides trained in various aspects of ecology including ethnobotany as well as archaeology, as well as other fields of interest, can lead tourists for an in-depth experience of the vicinity of Apollo 11, with the cave at the core of the attraction. It is important to note that the cave should not be marketed as a single point, but as one of the main cores of a larger cultural landscape.

**Figure 15: Hot water spring in the Fish River Canyon**

**Die Toon**

Die Toon (28° 18'40''S, 17° 17'00''E) is not only a geological phenomenon, but also contains among the oldest excavated evidence of hunter-gatherer occupation of the ARTP (c.a. 3800 to 3100 BP). These are the earliest Holocene deposits to have been excavated in the Richtersveld. The excavated material includes microliths and evidence for the hunting of small game. The potential for heritage tourism derived from the archaeological site which is regarded as minor in isolation (Webley, Archer & Brink 1993).

**Kokerboomkloof**

A site at Kokerboomkloof reveals that at least some of the species currently present in the region (springbok, zebra, klipspringer, etc.) were also present in the region over 4000 years ago. The presence of fish bones also indicates that the river was an important source of food for the hunter gatherers (Webley, Archer & Brink 1993). The site in isolation has minor tourism potential. However, in combination with the natural landscape and as part of a larger heritage route, its heritage value could increase substantially.

**Figure 16: Kokerboomkloof**

**Reuning**

Halket (1999) found a large number of archaeological sites along in this area on the floodplain beside the Orange River. He found Early Stone Age (ESA) and Middle Stone Age (MSA) stone scatters and what appear to be pre-pastoralists camps (pre-2000 BP). Most of the occupation was located between Reuning (Sendelingsdrift) and Jakkalsberg, with some sites found further to the south.There are rock engravings immediately north of Reuning on dolomite extrusions (RN 1). Some of these engravings are definitely authentic and less than 300 years old, though graffiti is also present (Halkett 1999).

**Jakkalsberg/Sendelingsdrift**

Jakkalsberg is located in the Richtersveld National Park (RNP) section of the ARTP on the Orange River or Gariep, and close to Sendelingsdrift. It contains a series of open Later Stone Age (LSA) sites.

- Jakkalsberg A & B, dating between 650 and 800 AD, have been fully documented (Miller & Webley 1994, Brink & Webley 1996, Webley 1997) and have been classified as herder sites. Occupation at both sites have been dated to around the seventh century AD;
- Jakkalsberg N & L are the older of these sites dating back to the mid and late mid-Holocene respectively (8000 - 2000 BP). They contain large numbers of stone tools and bead-manufacturing debris and are the only sites of this age within the Richtersveld (along with Die Toon) that have been excavated;
- Jakkalsberg K & M both dates back to the last 2000 years. These sites have been only briefly documented; and
- Isolated engraved dolomite rock was found east of Jakkalsberg and appears to have been washed down the hillside.

Halkett (1999) identifies the following sites in addition to the above at Jakkalsberg and the nearby area:

**Table 1: Jakkalsberg, MEHL and AACE sites identified by Halkett (1999)**

| Site | Type | Age (yrs BP) | Remains |
|---|---|---|---|
| JKB/A/B | Artefact scatter | >2000 | Stone tools, ceramics, oes, bone, shell, ash, burial. |
| JKB C | Artefact scatter | >2000 | Stone tools, ceramics, oes, bone, shell |
| JKB E | Artefact scatter (minimal) | >2000 | Stone, ceramics, bone |
| JKB F | Artefact scatter | >2000 | Stone, ceramics, oes, shell |
| JKB G | Artefact scatter | >2000 | Stone, ceramics, oes, bone |
| JKB H | Artefact scatter | > 2000 | Stone, ceramics, oes, bone |
| JKB K | Artefact scatter | >2000 | Stone, ceramics, oes, shell |
| JKB L | Artefact scatter | <2000 | Stone, oes, bone, shell |
| JKB M | Artefact scatter | >2000 | Stone, ceramics, oes, ochre cakes |
| JKB N | Artefact scatter | <2000 | Stone, oes, bone, shell |
| JKB O | Artefact scatter | >2000 | Stone, ceramics, oes, bone, burial |
| JKB P | Artefact scatter | >2000 | Stone, ceramics, oes |
| JKB Q/R | Artefact scatter | >2000 | Stone, ceramics, oes, bone |
| AACE 1 | Artefact scatter | > 2000 | Stone |
| AACE 2 | Artefact scatter | ESA/MSA/LSA | Stone |
| MEHL 2 | Artefact scatter | >2000 | Stone, ceramics, oes, bone, shell |
| JKB: Jakkalsberg; BLD: Bloeddrift; MEHL and AACE are nearby locations. | | | |

Little organic material could be found at these sites; however, all of them contain fish remains. This indicates the importance of the river to these early settlers of the ARTP. However the exact fishing methods used are not known. Despite strong connections with the Namaqualand coastal area, the tool types at Jakkalsberg N & L closely resemble microlithic toolsets from outside of South Africa and in Namibia. This is surprising, as it indicates more complex exchanges over greater areas between different populations (Smith, Halkett, Hart, & Mutti 2001).

**Bloeddrift**

Bloeddrift is a very rich archaeological site. It contains a large number of heard in camp, especially along the upper terrace of the river, and are generally very similar to the sites found at Jakkalsberg and Reuning. Many sites cluster around two large tributaries that enter the Orange River at this location. "One of these dry channels is the Annis River, and it is probably no coincidence that travelling up the course of this river leads to the small number of village of Khubus (Halkett 1999)."

Bloeddrift 23 is a 300-year-old open site alongside the Orange River. It contained a number of hearths and cultural debris indicating separate cooking areas that may be associated with individual huts. The site was occupied for a limited period and thought to be associated with a pastoralist economy, in other words Khoe. From a heritage perspective the site is important as proof that Hunter communities can be distinguished from pastoralists communities in the archaeological record. This is thought to contradict the notion that the hunter gatherers (San) and pastoralists (Khoe) could not be separated ethnographically, and that they represented opposite ends of a socio-economic spectrum (Smith, Halkett, Hart, & Mutti 2001).

The nearby Bobbejaankrans contains the only rock shelter with signs of occupation. Nama used the site up to today for keeping goats which is disturbed in the archaeological deposits. However, pot shards and stone tools can be found on the tailor's slip and there are many engravings in the vicinity. There may be other rock shelters in this area with deposits, though this has not been confirmed (Halkett 1999).

The Bloeddrift petroglyphs are located on the periphery of the ARTP close to the Orange River in South Africa. Halket (1999) lists 17 engraving sites, most of which are younger than 300 years (i.e. BLD 1 - BLD9; BLD 12 - 14; BLD 16 – 21; BLD 26 – 29; BLD 34B – 36). The majority of

**Figure 17: Bloeddrift petroglyphs and graffiti**

the engravings date back at least 2000 years, though some are as old as 10,000 years. These abstract designs were originally thought to refer to the different levels of trance experienced by San medicine men. However, it is now clear that the rock engravings were produced by Khoe herders. Halkett (1999) states that there appears to be a concentration of rock engravings in this area and that many more engraved sites could be found.

Tourism potential of the archaeological sites in this area is limited. Display materials would have to be developed if it is opened to the public, and it should ideally be visited only in the company of guides. The greater proportion of these sites are not currently threatened by mining, however, past damage has taken place and great care would have to be taken in future.

**Table 2: Bloeddrift sites identified by Halkett (1999).**

| Site | Type | Age (yrs BP) | Remains |
|---|---|---|---|
| BLD 10 | Artefact scatter (minimal) | <2000 | Stone, oel, deposits |
| BLD 11 | Artefact scatter in shelter | >2000 | Stone, ceramics, oel, deposits |
| BLD 15 | Artefact scatter (minimal) | ? | Stone, oel, bone, stone circle? |
| BLD 22 | Artefact scatter | >2000 | |
| BLD 23 | Artefact scatter | <2000 | |
| BLD 24 | Artefact scatter | <2000 | |
| BLD 25 | Artefact scatter | <2000 | |
| BLD 32 | Artefact scatter | >2000 | Stone, ceramics, oel, bone, shell, burial, ash patch |
| BLD 33 | Artefact scatter | <2000? | Stone, ceramics, oel, |
| BLD 34A | Artefact scatter | <10,000 | Stone, MSA |
| BLD 37 | Artefact scatter | <2000 | Stone, oel, some MSA re-use |
| BLD 38 | Artefact scatter | <2000 | Stone, ceramics |
| BLD 39 | Artefact scatter | >2000 | Stone, ceramics, oel, bone, shell, mixed assemblages |
| BLD 40 | Artefact scatter | MSA/ESA | Stone tools, hand axe |

**Nxodap**

Engravings judged to be more than 300 years old have been found at Nxodap, just south west of the Richtersveld National Park (RNP) along the Orange River halfway to Bloeddrift (NXP 1); so to some minimal artefact scatter, along with bone fragments, dating back to more than 2000 years ago (NXP 2) (Morris & Turkington 1997; UCT Archaeology Contracts Office 2001).

**Boom River sites**

These are sites on the Namibian side of the ARTP at the confluence of the Boom and Dabimub Rivers with the Orange River (approximately 17° 05' E) uncovered during a preliminary heritage survey of the lower Orange River (Kinahan 2003). Some 35 archaeological sites were discovered in the 25 km² area surveyed. These are mostly pastoralist encampments dating back to the last 2000 years. However, scatterings of pre-pastoralists Holocene and Pleistocene stone tools were also found. All elements of the mid-Pleistocene to more recent archaeological sequences were present, but there are no large concentrations of archaeological sites and no single sites of great significance.

The preliminary survey done on the Boom River sites indicate that many more archaeological sites probably exist throughout the ARTP, especially along the river. From a heritage perspective, they indicate persistent human habitation of the ARTP over an immense period of time. However, it is difficult to prove continuity between these populations (Kinahan 2003). The heritage value of the sites in isolation is minimal, especially in isolation; so too the tourism potential. However, this can be developed in the context of a broader cultural landscape, in which specific sites are picked out for attention and interpretation purposes.

**Haib River sites**

The nearby Haib River sites (approximately 17° 55' E) were similarly identified in the course of the preliminary Orange River archaeological survey (Kinahan 2003). Some 48 archaeological sites were identified in a 30 km² area. Significant concentrations of Holocene and Pleistocene stone tools were found, also on the plateau some distance from the Orange River. Most of the River Valley sites were nomadic pastoral encampments and colonial or historical sites. There were no single sites of outstanding significance, or large concentrations of archaeological sites (Kinahan 2003). Though there are sites relating to early colonial settlement and the German military campaigns against Jacob Marenga (1904-1907). These are of heritage interest as they relate directly to historical events.

As with the Boom River sites, these sites indicate that much archaeological heritage remains to be discovered in the ARTP. It also demonstrates the necessity of a cultural landscape approach. The heritage value of the sites, as with the Boom River sites, are minimal in isolation. Nonetheless, their value increases with a comprehensive approach.

**Grave and burial sites**

Archaeologists predict that a large number of pre-colonial grave sites are located alongside river banks throughout the ARTP. These graves provide insights into the earlier population and settlement history of the ARTP. They demonstrate the transient nature of settlement in the area and the unity of the ARTP as a historical and cultural landscape.

There are also a large number of colonial and post-colonial era grave sites in the area, many of which have not been properly assessed or catalogued. Halkett (1999), for instance, refers to a large number of graves that show Christian influences (rectangular mounds of stone with headstones) dating back to the last 300 years. He also identifies a smaller number of more traditional circular stone cairns which may predate the colonial era (see Table 3 below).

The German military graves, including the Von Trotha grave (see Table below), can be connected with specific and important historical events that gives them significant heritage value. Second Lieutenant Thilo von Trotha (23/11/1877-14/06/1905) is the nephew of the well-known Lieutenant General Lothar von Trotha who was responsible for the genocidal German campaign against the Nama. Thilo von Trotha died here during a skirmish with the Nama.

**Figure 18: Avenant grave (left) and unmarked graves (right)**

The Avenant graves at De Hoop are an example of a whole category of grave sites. The Avenant family farmed at De Hoop, leaving behind the graves of several children. They were one of about nine families of white farmers who used to farm in the Richtersveld. In the 1950s with the Group Areas Act, these farmers were technically considered to be squatting on a Coloured Reserve and removed. Other families that lost access to their land included the Van Rensburgs (Grasdrif), the Graaf family (Gelykwerf), the De Vries brothers (summit of Vandersterrberg and at Koeskop), and the Bosman family (Stinkfontein/Eksteenfontein). These graves remind one of the manner in which the Apartheid legislation tore communities

apart. Graves are likely to occur at the other locations mentioned here as well. Reck (date unknown) reportedly makes reference to several sites, the identity of which would have to be compared with known grave sites listed below.

**Table 3: Grave sites in the ARTP in SANParks records**

| Site description | Location | Coordinates |
|---|---|---|
| Unknown grave | Near Hakkiesdoring, Richtersveld | Lat: -28.39039333; Long: 17.171945 |
| Unknown grave | Richtersveld | Lat: -28.37348833; Long: 17.167445 |
| Tatas grave | Richtersveld | Lat: -28.373488333; Long: 17.21949333 |
| Tatas grave | Richtersveld | Lat: -28.25809167 ; Long: 17.21951333 |
| Tannie Joseph | Richtersveld | Lat: -28.28756; Long: 17.00219833 |
| Avenant graves | De Hoop, Richtersveld | Lat: -28.28827167; Long: 17.00100667 |
| Thilo von Trotha grave | AHSGP | Exact location unknown |
| Three German military graves | On the bank of the Orange River close to the confluence with the Haib River. | |

**Table 4: Gravesites identified by Halkett (1999)**

| | | |
|---|---|---|
| JKB D | Grave | <300 |
| JKB J | Graves | >300 |
| JKB S | Graves | >300 |
| BLD 41 | Graves | LSA |
| NXP 3 | Graves | > 300 |
| JKB: Jakkalsberg; BLD: Bloeddrift;<br>NXP: Nxodap | | |

The heritage value of these sites varies. However, all of them provide insights into the cultural history of the ARTP and can deepen the many stories that can be told about this landscape. A field-level survey is needed to identify all graves, demarcate them and to develop a protection strategy. Areas threatened by mining need immediate attention (Halkett 1999).

**Mines and diggings**

Mining has taken place in the ARTP as far back as pre-colonial times and it was targeted for mineral extraction early in the colonial period. Today mining represents a major source of income for the region. The TransHex mining group, for instance, has extracted more than R4 billion's worth of diamonds from the "Glory Hole" in the Richtersveld National Park (RNP).

**Figure 19: The Glory Hole**

Mining is a significant part of the heritage of the ARTP, but also poses a great potential threat. A more detailed field-level survey is needed to determine the heritage value and condition of the sites. Reck (date unknown) reportedly makes reference to several mines, the identity of which would have to be compared with known grave sites listed below.

**Figure 20: Copper mine in the RNP**

**Table 5: Mines in the Richtersveld section of the ARTP (SANParks records)**

| Site description | Location | Coordinates |
|---|---|---|
| Copper mine | Richtersveld | Lat: -28.32029833; Long: 17.214075 |
| Numees | Richtersveld | Lat: -28.29610167; Long: 16.96748 |
| Numees magazine | Richtersveld | Lat: -28.29648333; Long: 16.96778 |
| Iron ore (very deep), | Richtersveld | Lat: -28.31652; Long: 16.98927 |
| Kodaspik excavations, copper | Richtersveld | Lat: - -28.21060833; Long: 16.97706667 |
| Very deep shaft | Richtersveld | Lat: -28.21252833; Long: 16.976205 |

**Other sites**

There are several other petroglyph sites in the Richtersveld, such as Helskloof, and ARTP as a whole, such as in the vicinity of Apollo 11, and further archaeological surveys will likely help to pinpoint more such sites. The visual nature of these sites enhances their tourism value and guided tours used to take place from Alexander Bay, Eksteenfontein and Kuboes. This unfortunately also exposed the site to vandalism and it is highly recommended that guides are trained to accompany visitors.

Much information about archaeological sites is contained in published and unpublished reports that could not be obtained for this study and the contents of which need to be compared with the identified sites.

- Robertshaw (1974): identifies 6 archaeological areas in an archaeological survey;
- University of Cape Town (1976): identified 14 archaeological areas in the National Park and the communal area;
- Miller & Yates (1994): identify 9 archaeological areas in and around the National Park in an unpublished archaeological survey;
- Morris & Turkington (1997): identify a list of 6 heritage areas in an unpublished paper to Trans Hex Mining, mostly around Sendlingsdrift and Bloeddrif;
- Webley & Vogelsang (2002): identify 4 archaeological areas inside and 18 outside of the Richtersveld National Park (RNP);
- Wembley (date unknown): publication about excavations at /Hei-khomas of Vaalhoek;
- Hart and Halkett (2001): an unpublished report about the excavation of 4 sites at Jakkalsberg to Trans Hex. It reportedly contains Global Positioning System (GPS) coordinates for 20 Heritage sites and information about 38 further areas that had been identified;

- Van der Walt et al. (2010): an archaeological survey in the Richtersveld refers to the identification of 11 archaeological sites;
- South African Heritage Resources Agency (SAHRA) has also identified sites of cultural heritage value, which are mentioned in the Lower Orange River Management Plan (http://www.dwaf.gov.za). However, the information remains minimalistic.

These studies should be obtained to evaluate information about the archaeological sites.

## 4.2. Conclusion

Archaeological sites are distributed throughout the ARTP in a thin but persistent manner. The archaeology has been massively understudied, and our archaeological heritage represents a major undiscovered aspect of the ARTP, one that can add considerable depth to the ARTP as a cultural, historical a political landscape.

A detailed and thorough archaeological survey of the ARTP as a whole, focusing on the components identified above, is urgently needed. A preliminary survey would have to be followed by a long-term research programme and cultural landscape mapping (CLM). This process should be combined with accessible communications aimed at local people and visitors alike.

Doing this would require a long-term research programme, and it is strongly suggested that the ARTP develops a partnership with a set of Namibian, South African and international universities. Such a program can be linked directly with heritage protection and development, heritage interpretation and tourism development, and community-level education, training, and capacity building.

A healthy archaeological heritage development programme would help to develop community perspectives on their heritage and foster job creation. As always, perceived and real linkages between the ancient archaeological sites and modern-day ethnicity and identity should be approached with care.

Care also has to be taken with management procedures for the archaeological sites. Halkett (1999) suggested a basic management framework for the archaeological sites in the Reuning-Bloeddrift region that can be applied elsewhere.

**Table 6: Basic management framework for archaeological sites (Halkett 1999)**

| | |
|---|---|
| ESA sites | ESA material is often found on mined gravels. These are highly disturbed. No mitigation. |
| MSA sites | The only sides of definite MSA-age found were on top of the koppies at Bloeddrift. This will not be mined. No mitigation. |
| LSA sites | Older herder and San camps are most likely to be affected by mining as they occur mainly on salty river terraces. No mining or related activity should occur at or near areas where sites have been identified until mitigation has been undertaken. Phase 1 investigations should be undertaken in similar areas targeted for mining. |
| Engravings | Engravings occur on dolomite outcrops and vulnerable to mining and concomitant damage due to graffiti. They should be checked before mining or related activities take place. Vegetation should also be monitored as this can also damage the engravings. A communication campaign will help to reduce damage by mine employees and local people. A comprehensive survey is needed. |
| Graves | Especially the pre-colonial stone mounds should not be disturbed by mining or related activities. Graves that are in the way can be removed as a mitigating measure. Graves in areas where mining is likely to occur should be identified and demarcated. A comprehensive survey is needed. |

## 4.3. References


Archaeology Contracts Office, UCT, 2001. A report on archaeological excavations on the Orange River floodplain between Jakkalsberg and Sendelingsdrift, Richtersveld. Prepared for Trans Hex Mining Limited.

Dreyer, C. 2005. Archaeological Assessment of the Proposed Upgrading of the Gravel Road between Alexander Bay and Khubus, Richtersveld, Northern Cape: AIA Phase 1. 28/04/2005. MAPID_00925. SARAH reference: 2-066-0043-20050428-PAHS.

David Fleminger (undated). The Richtersveld Cultural and Botanical Landscape, including Namaqualand.

Halkett, D. 1998. Report on an initial visit to assess the impact of mining on archaeological sites in the Richtersveld. Unpublished report prepared for Trans Hex Mining Limited. UCT Archaeology Contracts Office (report not obtained for this review).

Halkett, D. 1999. A Phase one Archaeological Assessment of heritage resources in the Trans Hex Diamond Concession, Richtersveld. Prepared for Trans Hex Group Ltd. June.

Halkett, D. 1999. An Archaeological Assessment of Power Line Routes between Muisvlak and Eksteenfontein, Richtersveld: AIA Phase 1. 01/01/1999. UCT Archaeology Contracts Office. SARAH reference: 9-2-066-0043-19990101-ACO.

Kaplan, J. 2001. Heritage Impact Assessment: Proposed Pipeline Orange River to Khubus Richtersveld, Northern Cape Province. AIA Phase 1. 01/12/2001. Agency for Cultural Resources Management. SARAH reference: AIA_Khubus_Pipeline_Kaplan_JM_Dec01.

Kinahan, J. 2003. A preliminary archaeological assessment of the lower Orange River. Quaternary Research Services Report 40. Commissioned by C. I. Brown (http://www.dwaf.gov.za/orange/Docs/LORMS%20Final%20Reports/Env%20Assessment/Annex%20E%20Archaeological%20assessment%20by%20Kinahan%20Feb03.pdf).

Kinahan, J. & Schalken, W. 2010. Feasibility study for preservation and tourism development options for the Apollo 11 Rock Art Cave in the Ai-Ais Richtersveld Transfrontier Park. QRS Job Number 116.

Molin, J. 2005. The past is Present: Archaeological sites and identity formation in Southern Africa. Master Thesis in Cultural Anthropology, Department of Cultural Anthropology and Ethnology, Uppsala University.

Morris, D. & Turkington, T. 1997. Graves, archaeological and rock art sites: Bloeddrif and Reuning. Richtersveld, Northern Cape. Unpublished report to Trans Hex Mining. List of six heritage areas including Graves, archaeological sites and rock art, mostly around Sendlingsdrift and Bloeddrif.

Orton, J. & Halkett, D. 2010. Stone tools, beads and a river: two Holocene micro-lithic sites in the north-western Richtersveld, Northern Cape, South Africa. South African Archaeological Bulletin 65 (191): 13-25.

Robertshaw, P.T. 1978. Khoi and San: Aspects of the later prehistory of the Western Cape, South Africa. Unpublished Ph.D. dissertation, University of Cambridge (not obtained for this review).

Robertshaw, P.T. 1978. The archaeology of an abandoned pastoralists campsite. South African Journal of Science. 74: 29-31.

Smith, A.B., Halkett, D., Hart, T. & Mutti, B. 2001. Spatial patterning, cultural identity and site integrity on open sites: evidence from Bloeddrift 23, a pre-colonial herder camp in the Richtersveld, Northern Province, South Africa. South African Archaeological Bulletin 56:23-33.

Thornton, G. & Feinstein, K. 2001. Gariep Spatial Development Initiative, Phase 1 & 2. Tourism Background Report: Tourism Development Plan.

Van der Walt, J., Van Ryneveld, K, & Bamford, M.K. 2010. Archaeological and Palaeontological Impact Assessment for the updated EMP of the Trans Hex mining operations in the Richtersveld, Northern Cape. HIA Phase 1. 15/12/2010.
WITS Archaeological Contracts Unit. SARAH ref:
HIA_Trans_Hex_(v2)_Van_der_Walt_J_Dec10.
Vogelsang, R. 1996. The Middle Stone Age in south-western Namibia. In Pwiti, G & Soper, R. (Eds). Aspects of African archaeology. Harare: University of Zimbabwe Press: 207-212.
Webley, L., Archer, F., & Brink, J. 1993. Die Toon: a Late Holocene site in the Richtersveld National Park, Northern Cape. Koedoe 36: 1-9.
Webley, L. 1986. Pastoralist ethno-archaeology in Namaqualand, in Prehistoric pastoralism in southern Africa, edited by M Hall & AB Smith. South African Archaeological Society. (Goodwin Series; no. 5.).
Webley, L. 1997. Jakkalsberg A and B: The cultural material from two pastoralists sites in the Richtersveld, Northern Cape. Southern African Field Archaeology, Vol. 6: 3-19.
Webley, L. 1992. The history and archaeology of pastoral and hunter-gatherer settlement in the north-western Cape, South Africa. Unpublished PhD thesis, University of Cape Town.
Boorskutter (1981 – 1990); Webley (1981-1998): Publications and reports on oral history, including Nama cultural practices and heritage sites in and around the Richtersveld National Park (RNP).
Reck, K. (undated) Tracks and Trails in the Richtersveld.
Robertshaw, P. T. (1974): Archaeological survey in the Richtersveld.
University of Cape Town (1976): Archaeological survey of the Richtersveld National Park and the communal lands.
Miller, D.E. & Yates, R. (1994): Unpublished archaeological survey of archaeological areas in and around the National Park.
Webley, L. & Vogelsang, (2002): Archaeological survey of the Richtersveld.
Wembley, L. (undated): Publication about excavations at /Hei-khomas of Vaalhoek.
Hart and Halkett (2001): Report on the excavation of four sites at Jakkalsberg to Trans Hex.

# 5. Architectural heritage

## 5.1. Introduction

The ARTP has a substantial heritage in the form of traditional and colonial architecture, as well as ruins and remnants of structures developed during several historical eras. Several of these, such as those relating to German military activity, the First World War, can be linked directly with important historical events and have high heritage value. These sites have featured in a wide range of studies and surveys.

In South Africa buildings or part thereof are also protected under Section 34 of the National Heritage Resources Act, 1999 and one may not alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

## 5.2. Architectural elements and sites

**Matjieshuise or '|haru oms'**

The archetypical and iconic architecture of the ARTP are the so-called *matjieshuise* (rush mat houses) or '|haru oms' as they are called in Nama. They consist of layers of reed mats drawn over a rigid structure (mostly consisting of *Ziziphus mucronata*) and are light and easy to transport. This is an architectural technology born from this landscape. They were designed for the nomadic lifestyle of the Nama and ideally adapted to the warm and dry climate of the region. So effective is this architecture that it was historically often adapted by immigrant communities such as the Basters and Europeans (Hall, Kaspar & Whelan 2001).

Today Matjieshuise occur in only a few locations in and around the ARTP. The town of Kuboes, where efforts have been made to keep the tradition alive, is the most important location inside the ARTP. At nearby Sanddrift, outside the ARTP, people actually used Matjieshuise as primary structures for living in, often covering them with plastic bags or sheeting,

**Figure 21: A matjieshuis in Kuboes**

rather than reed mats. Matjieshuise are commonly used inside the Richtersveld National Park (RNP) by Nama herders, as in grazing camps near Eksteenfontein and Lekkersing, though modern materials are often used. Matjieshuise also occur further to the south outside of the ARTP in towns like Leliefontein, Komagas and Steinkopf (Hall, Kaspar & Whelan 2001).

In Bethanie, Namibia, matjieshuise were still common 40 years ago, but today there are none and only two women reportedly still know how to make them. At Bersheba, another former mission station in the north, 5 or 6 matjieshuise are reportedly still used as residences. The people still know how to make them even though, a mixture of traditional and modern materials is used. A large section of Aussenkehr, which has a strong Nama community, consists of structures with reed walls and roofs, sometimes mixed with modern materials (Hall, Kaspar & Whelan 2001).

The matjieshuise have special significance in that they are a pivotal part of the transhumant traditional way of life of the Nama people. This semi-nomadic type of life, in which traditional Nama families move around to find the best fodder for their livestock, is central to the qualities that led to the inscription of the Richtersveld Cultural and Botanical Landscape (RCBL) on the World Heritage List. It is worrying that the transhumant lifestyle has all but disappeared in Namibia (partly due to the establishment of settlements, some of which were mission stations in the past or otherwise settlements created by the government) and now also hangs by a thread in the Richtersveld (Hall, Kaspar & Whelan 2001).

**Kuboes Church**

The Kuboes church in the Richtersveld is a historical building that will soon be a National Monument. The Rhenish Missionary Church established a mission station at Kuboes in the mid-1800s. The Rhenish mission had a major impact on the destiny of the Richtersveld, the culture of its people, and their ability to retain their land. The church continues to play an important role in the community today. Kuboes now also plays an important role in the preservation of Nama culture (Eksteen 2012).

**Figure 22: The Kuboes Church**

**Eksteenfontein**

The Bosluisbasters settled at Xhobes in the Richtersveld with the agreement of the local Nama in the 1840s. Xhobes translates as Stinkfontein or Stinking fountain and referred to the poisoning of the nearby well by the Bushmen, who threw a body into it during a war with the Nama. The Bosluisbasters renamed Xhobes as Eksteenfontein in honour of the Reverend Eksteen who had built a church and a mission station at the settlement. The town has a Bosluisbaster museum which documents the great trek of this community into the Richtersveld, a bed and breakfast and several camping sites (Eksteen 2012).

**Figure 23: The Xhobes well**

**Colonial era architecture and the ruins**

The ruins of early colonial farming settlements are scattered along the Orange River. Trekboers began to settle on farms in the Richtersveld from the beginning of the 20th century onwards. These were later removed when the land was allocated to the Baster and Nama communities. The ruins of the farm houses they occupied at places like De Hoop and Grasdrift can still be seen today, including at Daberas in Namibia close to Sendelingsdrift. An undated report by Reck identifies a large number of old farmhouses and Halkett (1999), working in a small area, identifies ruins at Mehl (site named MEHL 1 in Morris & Turkington 1997), a site with bottles and ceramics.

Sendelingsdrift contains the remains of the original Sendelingsdrift Mission Station. The border station at Sendelingsdrift contains a historic police outpost, complete with stock enclosures and shelters, which are in an excellent condition. This is a historic river crossing site. However, the area is heavily impacted by mining and the heritage value of the site is unknown at this stage (Halkett 1999).

Remnants and signs of colonial occupation can also be found throughout the Namibian section of the ARTP and up to 1904 many farms were set up in the Aussenkehr area in Namibia. Many farms and properties were abandoned during the Nama and Bondelswarts rebellions and the houses have crumbled into ruins. However, some farms operate up to today and some of the houses built during that period still stand. Aussenkehr also contains a historic police outpost/guard house, now in ruins. Another was built on Grootpens Island in the Orange River (Kinahan 2003).

Witputs in the Canyon Nature Park next to the /Ai-/Ais Hot Springs Game Park (AHSGP) contains the ruins of a farmhouse that once belonged to Reinier Coetzee, the last person to see Adolf Lüderitz alive. Close to this is the location of a police station from where the area up to the Sendelingsdrift border gate was patrolled. Witputs also has World War I trenches and ruins associated with Manie Maritz, the rebel Boer General who joined the German forces in 1914.

These ruins and especially German military structures can be linked directly with important historic events and should be considered potentially important heritage. A proper survey of these structures is needed. Mining ruins of historical value apparently exists near Gamkap[4], and again underscore the importance of a thorough on the ground inventory of build structures.

## 5.3. Conclusion

Existing architectural traditions, such as that of the Nama matjieshuise urgently needs to be protected in order to avoid the skills disappearing. Parts of the ARTP, such as the Richtersveld National Park (RNP) already have monitoring programs. This should urgently be extended to the rest of the ARTP.

Halkett (1999) recommends that the remnants of the Sendelingsdrift Mission Station should be demarcated to protect it against mining and related activities. The same precautionary measure would apply to any architectural remains that could be impacted upon by mining. A detailed survey of the architecture of the ARTP is needed to be able to develop an Integrated Conservation Management Plan (ICMP) to cover these aspects of the park's heritage.

[4] Pers. Comm.. with Antje Burke by Karl Aribeb.

## 5.4 References

CSIR/EnviroDynamics, 2010. Environmental impact assessment and environmental management plan for Orange River Life of Mines Extension Project, Sendelingsdrift. Draft EIA and EMP Report. Report No. CSIR/CAS/EXP/2010/0001/A. June.

Eksteen, R.B. 2012. BBs van Boesmanland. Private publication. http://www.africanabooks.com/bookdetails.asp?book=24591.

Hall, A., Kaspar, A. & Whelan, D. 2001. The traditional architecture of the Namas of the Richtersveld.

Kinahan, J. 2003. A preliminary archaeological assessment of the lower Orange River. Quaternary Research Services Report 40. Commissioned by C. I. Brown.

Thornton, G. & Feinstein, K. 2001. Gariep Spatial Development Initiative, Phase 1 & 2. Tourism Background Report: Tourism Development Plan.

Reck, K. (undated) Tracks and Trails in the Richtersveld.

David Fleminger (undated). The Richtersveld Cultural and Botanical Landscape, including Namaqualand.

# 6. Intangible heritage

## 6.1. Introduction

Heritage is not limited to tangible, material items, but includes living expressions and traditions that people have inherited from their ancestors and transmit to their descendants. Intangible heritage is strongly connected with people's sense of identity and a sense of self. It includes aspects such as languages and dialects, stories and legends, music and dance, arts and crafts, most of which is transmitted already between the generations.

From this perspective the ARTP is also a living cultural landscape. Many of the geological or natural heritage items discussed above, also have an equally important intangible heritage component. Nama culture has been identified as a key component of the cultural landscape within the Richtersveld Cultural and Botanical Landscape (RCBL) WHS, and there is no reason why it should not be celebrated also through the remainder of the ARTP, in conjunction with the material heritage of the Nama. However, a cultural landscape always has multiple layers. Other cultural layers, such as that of the San, are equally important; so too is the living heritage of the Bosluisbasters and other groups.

The cultural heritage of ARTP has retained a high degree of authenticity. The centres of intangible heritage are the villages in and around the ARTP, places like Sanddrift, Kuboes, Lekkersing and Eksteenfontein in South Africa. Visitors are here able to experience these cultural forms directly, and contribute to the revival of the intangible heritage. The basic elements of this heritage are discussed further below.

## 6.2. Elements of intangible heritage in the ARTP

**Language**

Language is the quintessence of intangible heritage. The ARTP has a mixed linguistic heritage, featuring languages like Nama and Afrikaans, and to a much lesser degree German, English and languages like Xhosa.

Nama has survived terrible oppression, genocide and marginalisation in the course of the colonial era, especially in Namibia where the colonial authorities waged a war of extermination against Nama and other groups. Today Nama is taught at schools in Namibia, and is enjoying a revival in the Richtersveld, especially in Kuboes. Nama therefore

represents important intangible heritage, which is gradually being rediscovered and that links people with other aspects of their heritage (Traill 2002).

The Nama linguistic heritage therefore links the people of the ARTP with the landscape and is embedded in other by mentions of heritage, such as the ethnobotanical knowledge of the local people (see below). Nama is reflected also in song and on a symbolic level ultimately also in dance and the arts. The Nama language therefore constitutes an important intangible component of the cultural heritage of the ARTP.

Many geological and natural features of the ARTP, such as /Ai-/Ais, have Nama or even older San names, or have been translated into Afrikaans and ultimately English. Afrikaans was introduced to the ARTP region first by Khoe and Basters groups who varying mixtures of Khoe, particularly Nama, and so-called Khoe-Afrikaans varieties. Jan and Jonker Afrikaner count among the most famous of the leaders that drove this process and left their mark on the ARTP (Traill 2002).

These groups had experienced varying degrees of a linguistic shift towards Afrikaans and were arguably responsible for the transmission and/or translation of original Khoe or San place names into Afrikaans. Landscape features were also translated or renamed by successive waves of colonial settlers and often differ substantially from the more ancient place names. That exchange existed also between these groups and the speakers of indigenous languages is indicated by the fact that some of the early settlers had actually spoken the San language /xam (Traill 2002; Penn 2005).

The Khoe-Afrikaans roots of modern day local language can be detected up to today in very specific features of the dialects of the Northern Cape Province, including in and beyond the ARTP. Today people in this region of South Africa and Namibia, often regardless of race, speak a regional version of the language that had been strongly influenced by Khoe-languages like Nama. The regional dialects retain substantial archaic cultural forms and are expressive of Nama culture in a variety of ways (Traill 2002; Mesthrie 1995; Holm 1989; Penn 2005).

Like Nama, Afrikaans in this hybrid form is closely linked with the landscape and the identity and history of the people. The ownership of Afrikaans has also changed with the demise of Apartheid and the critical role played by indigenous people and people of mixed descent in the origins and the shaping of the language is beyond dispute, leading to the language being reclaimed by many groups. Internationally growing recognition is given to regional dialects

as an expression of cultural diversity, and Afrikaans can also be described as an important element of the heritage of the ARTP (Mesthrie 1995; Holm 1989).

This heritage is particularly vulnerable. The Peace Parks Foundation (PPF) maps, for instance, translate several sites into English and also the impact of tourism operations is relevant. Anecdotally, the changes noticed indicate a need for a clear etymological study of the place names of the ARTP, leading to a clear conservation vision and strategy.


**Figure 24: The Richtersveld book writers circle**

**Table 7: Origins of place names in the ARTP**

| Partly of Khoe and/or San origin | | | |
|---|---|---|---|
| Abahirabberg | /Ai-/Ais | Amkasberg | Annisrivier/kop |
| Arimasrivier/berg | Auchobspringe | Chamatiesberg | Gaigasrivier |
| Ganakouripewilderniskamp | Gorarivier | Hobas | Holoogbergrivier |
| Hunsrivier/berg | Kodaspiek | Koeboes/berg/fontein | Koeskopberg |
| Kochasdrift (Kochas Drift) | Kohamsrivier | Konkiep | Koubisberge |
| Kougabrivier | Koukieprivier | Kuamsberg | Kuamsibberg |
| Kouamsrivier | Nabasberg | Noemeesberg | Nuabrivier |
| Namaskluft/Namuskluft | Namusberg | Norotshama River Resort | Oena |
| Oemsberg | Orabsrivier | Oudanissierivier | Tattasberg |
| Xanamsrivier | | | |
| **Khoe-Afrikaans/Afrikaans origin** | | | |
| Akkedispas | Boplaats (Bo Plaats) | Bloeddrif (Bloeddrift) | Bloubosrivier |
| Bakrivier | Cornellsberg/kop | De Hoop | Die Toon |
| Doringpoort | Glybank | Grasdrift | Grootpenseinland |
| Halfmenspas | Hand van God (Hand of God) | Helskloofpas | Hakkiesdoring Hiking Camp |
| Jakkalsberg | Koelkrans | Kokerboomkloof | Kooksrivier |
| Leliehoek | Maerpoort/pas (Maer Poort) | Matjieskloof | Niklaaspas |
| Paradysberg | Penkop | Ploegberg | Potjiespram |
| Richtersberg | Remhoogte | Rooiberg | Roseintjieberg |
| Roseintjiebosfontein | Roseintjiesfontein/Roseintjierivier | Sandberg | Sekelberg |
| Sjambokrivier | Sonberg | Spieëlberg | Springbokvlakte |
| Stofbakkies | Swartpoortpas | Sendelingsdrift | Tafelberg (Table Mountain) |
| Vandersterberg | Vanzylsrivier | Verneukberg | Viervingerklip (Four Finger Rock) |
| Visrivier/skeurkloof/C | Vyfsusters (bergpiek) | Wondergat | Zebrasfontein |

| | | | |
|---|---|---|---|
| anyon | | | |
| **German** | | | |
| Aussenkehr | Baumholeberg | Dreigratberg | Hohenzollernberg |
| Loreleiberg | Mehlberg | Stockkraal | Wiesenruckenberg |
| | | | |
| **English** | | | |
| Desert Rim | Fish Eagle | Grande View | Rock hill |
| McMillans Pass | Mount Terror | Old Guard House | Sulphur Springs |
| Gondwana Canyon | Sendelingsdrif mineshaft and houses (tourist attraction) | Sendelingsdrift pontoon (tourist attraction) | Sperrgebiet film set (tourist attraction) |
| Sunset Spot (tourist attraction) | The Edge (tourist attraction) | Water Shed (tourist attraction) | Wild Fig (tourist attraction) |
| Fools Gold Corner (tourist attraction) | Bushy Corner | Valley of desolation | Four Finger Rock (Viervingerklip) |
| Vespa wreck | Whale Rock (Walvisklip) | | |
| **Other/unknown origin** | | | |
| Domoroghpas | | | |

**Transhumant pastoralism**

The lifestyle of the indigenous people was, and to a degree still is, closely linked with the natural environment and its cycles. Transhumant pastoralism is still practised in the Richtersveld in South Africa where stockholders still reside on large communal tracts of land and move their livestock around periodically between sites depending on the time of the year. The stock posts belong to families that have occupied them for many generations. Their herds are small and the grazing area is wide and large, because of the low carrying capacity, and grazing fields are rotated between the seasons to prevent degradation. This is the last surviving example of a way of life that formerly existed among all the pre-colonial Khoe groups of southern Africa and a key characteristic of the cultural landscape being protected within the Richtersveld Cultural and Botanical Landscape (RCBL) WHS and the Richtersveld National Park (RNP).

**Figure 25: Livestock post**

The transhumant lifestyle is also closely linked to the use of matjieshuise or |haru oms; also with donkey carts and traditional cuisine, today expressed in the form of potjiekos, stokbrood and asbrood (stick bread and ash bread). It is linked also to the ethnobotanical heritage and indigenous knowledge systems prevalent in the ARTP. This lifestyle-related heritage can be experienced at various locations throughout the ARTP up to today (Archer undated; Odendaal et al. 2007; Van Wyk & Gericke 2000).

**Ethnobotanical heritage and indigenous knowledge systems**

The ethnobotanical heritage of the ARTP is truly substantial and rooted in the truly significant biodiversity of the region. The names of many of these plants and the uses to which they are put, reach back to a more ancient tradition, namely that of the Khoe and the San, linkages that had been demonstrated by ethnobotanical researchers. Here too the words and names for various plants and remedies have deep cultural roots that had been transmitted through many generations, through Khoe-Afrikaans, to today and constitute a category of heritage that is in desperate need of conservation (Van Wyk & Gericke 2000).

This heritage still features strongly in remote stock posts and especially older people have a significant knowledge of the uses of plants, especially medicinal plants, the names of which vary across the region. The plant Jantjie Berend or Kalkoentjiebos, for instance, is used to treat fever and stomach aches. Some people say it can also be used to treat cancer. Salie is used for throat infections, tooth aches, mouth sores and menstrual cramps. Perdeblom is a well-known liver tonic and said to cleanse the blood. However, this knowledge is rapidly

disappearing and drastic action is needed to preserve and perpetuate it (Odendaal et al. 2007; Van Wyk & Gericke 2000; Von Koenen 2001).

Plants are used for other reasons, among other as firewood, with an average family using up to 15 kg of wood a day. This focuses on species like *Rhus undulata*, *Rhus pendulina*, *Euclea pseudebenus*, *Lebeckia sericea*, and *Acacia karroo*. (Odendaal et al. 2007; Van Wyk & Gericke 2000).

The ethnobotany as a category of heritage can be viewed as a subset of indigenous knowledge systems, which could include other dimensions of knowledge of the environment, such as tracks and trails, the distribution of resources, and so forth. Some work on this has been done on the Richtersveld side of the ARTP.

**Oral histories, stories, myths and legends**

The ARTP is a mythical place in which all main features of the landscape are associated with stories and legends. Storytelling, in fact, is an old Khoe and San tradition and visitors can today experience these campfire stories at various locations of the ARTP. The stories grow and are transformed as they are told. This helps to maintain their heritage, but also creates urgency for an effort to record these.

These stories link up with features of the landscape, thereby constituting a unique way of "thinking about the landscape". These stories have religious underpinnings, that have however changed with the introduction of Christianity. The most persistent story is that of the Groot Slang (Big Snake), the violently writhing coils of which created the Fish River Canyon when it fled from hunters trying to kill it.

The Big Snake is a theme that is very present on both sides of the transfrontier landscape. Those living close to the river often say that the snake is able to transform itself into a girl that lures young men to their deaths in the water. As is often the case, this story seems have its roots among the original San inhabitants of the ARTP, who apparently believed that the snake could kill with its breath.

Similar stories are told about Wondergat (see above), known in Nama as Heitsi Eibib, meaning 'spirit' or 'emptiness', some saying that the hole can make people disappear. Sometimes these return as terrified, wild-eyed old people with grey hair, making this a sacred and terrifying place (Ejikeme 2011; Odendaal 2007).

People's oral histories often differ from academic versions, transmitting important cultural concepts and orientations from generation to generation. Various oral history studies have been done especially on the Richtersveld side of the ARTP, but much more remains to be done.

**Dance and song**

The riel or Namastap is a shuffling dance form which can be seen in and around the ARTP in Namibia and South Africa, and which harks back to pre-colonial and pre-Christian Khoe dance forms. Something of a renaissance of folk music and dance has taken place recently, the use of modern instruments and ancient form creating a unique cross over style in the Afrikaans music scene. The traditional Nama-Afrikaans songs of Tannie Grietjie of Garies, for example, became a major hit. These songs are half spoken, half sung in a fairly monotonous manner, leading to them being confused with modern rap. And thus ancient and modern heritage is combined, creating the new by relying on the old (Odendaal 2007; ATKV Projekte www.atkvprojekte.co.za).

**Figure 26: The Stapdans on a livestock post (left) and in Kuboes (right)**

**Arts and crafts**

Traditional arts and crafts have declined under the onslaught of colonialism, apartheid and modernisation. Traditional clothing store worn by women on festive occasions is believed to have developed from the tradition of sewing together pieces of leather to create the karos (leather cloak). The lappiesrok (patch work dress) is a good example of this, a dress made of patches or cloth cut-offs. Textile printing has also become popular, in using motives taken from the surrounding environment and traditional rock art. Projects are currently underway at various locations in the ARTP to revive traditional arts and crafts, and traditional activities like donkey cart drives (Odendaal et al. 2007).

**Figure 27: Traditional donkey cart**

## 6.3. Conclusion

The intangible heritage is what gives the ARTP much of its present day heritage value. However, this heritage has been massively understudied and documented. As intangible heritage, it is also extremely vulnerable to change and is easily degraded or lost. It is therefore a matter of great urgency that this heritage be properly documented and studied in collaboration with the owners thereof.

The development of tourism in the ARTP has provided some impetus towards the revival of the intangible heritage. At the same time, tourism represents a major threat to intangible heritage. Tourism often wreaks cultural change, giving people a sense of disempowerment and loss. Ongoing monitoring of cultural heritage and the authenticity of heritage is therefore important. Such a monitoring process should be embedded in the management plan of the ARTP and the respective subsidiary protected area management plans. A key principle here is the active involvement of local people in controlling tourism and the impact of tourism on their heritage.

It may also be useful to set in place a process or framework to actively support and develop intangible heritage. This is already happening on a protected area level, particularly in the first felt WHS. In this note should be taken that intangible heritage relates directly to identity and people's sense of self, which places great responsibility in the hands of those who promote intangible heritage. The impact of tourism on local culture and the well-being of local people should also be actively managed on a local level.

Given the importance of intangible history, the sense of place of the ARTP and its tourism potential, as to the sense of self of the people living in and around the ARTP, intangible cultural heritage should be prioritised for research and support. Transfrontier cultural

exchange should be made easier, thereby giving the Nama community an opportunity to gain the critical mass needed for cultural revival. Attention could also be given to the transfrontier Afrikaans linguistic heritage of the ARTP, particularly in respect of so-called Nama-Afrikaans. Critically all of these activities need to be undertaken with bottom-up support and top-down initiatives should be avoided.

## 6.4. References


Archer, F. (undated) Ethnobotany of Namaqualand: The Richtersveld. University of Cape Town.

Barnard, A. 1992. Hunters and Herders of Seven Africa: A Comparative Ethnography of the Khoisan Peoples. University of Cambridge, Cambridge.

Cluver, A.D. de V. "Afrikaans as 'n nasionale taal van Namibië: 'n studie in taalgeskiedenis en taalpolitiek. Unpublished masters thesis.

Ejikeme, A. 2011. Culture and Customs of Namibia. Greenwood, California.

Holm, J.A. 1989. Pigeons and Creoles: Vol. 2, Reference Survey. Collier. Cambridge.

Mesthrie, R. (Ed.) 1995. Language and Social History: Studies in South African Socio-linguistics. David Philip Publishers (Pty) Limited. Claremont, South Africa.

Penn, N. 2005. The forgotten frontier: Colonists and Khoisan on the Cape's Northern Frontier in the 18th Centurey. Ohio University Press, Athens.

Traill, T. The Khoesan Languages. In Mestrhie, R (Ed) 2002. Language in South Africa. Cambridge University Press. United Kingdom. Pp 27-49.

Van Wyk, B-E, & Gericke, N. 2000. People's plants: a guide to useful plants of southern Africa. Briza Publications, Pretoria.

Von Koenen, E. 2001. Medicinal, poisonous and edible plants in Namibia. Klaus Hess Verlag. Goettingen, Germany.

# 7. Park Management Plans

## 7.1. AHSGP Management and Development Plan

The vision and objectives of the /Ai-/Ais Hot Springs Game Park (AHSGP) Management and Development Plan ("the Plan") specifically refer to the protection of biodiversity, landscapes, geological features and archaeological and cultural heritage of the park. In this regard the Plan refers specifically to "iconic mega-succulents".

The Plan further proposes a zonation plan divided into different areas with different levels of sensitivity using standard categories of the International Union for Conservation of Nature (IUCN). Various regions and vaguely defined sites are listed under the different categories, some of which are relevant to Heritage conservation. In this regard especially International Union for Conservation of Nature (IUCN) category 3, Natural monument, is relevant as it covers the conservation of specific outstanding features, including landscapes, geological and archaeological components, fossil deposits, and areas of spiritual significance and heritage value. Areas specifically listed include the Konkiep- Fish River Confluence (1a); Fish River Canyon and immediate outlying area, and the Boom River and surrounding geology and landscapes (1b); and Apollo 11 caves and the rock art around the area (2 & 3). Areas with fewer restrictions include the /Ai-/Ais Hot Springs area, Sendelingsdrift and the land east of Gamkab (5 & 6).

The Plan presents clear principles for sustainable utilisation, including tourism, grazing, bio-prospecting and mining. It also proposes collaboration with all neighbours and resident people and the development of co-management approaches, including wider coordination within a transfrontier context. The Plan also covers natural resources monitoring, research, and environmental education and training.

The Annual Work Plan refers, among others, to the development of an interpretive guide for the Fish River Canyon. Towards the end of reference is made to the need to develop an inventory of among others the following relevant heritage aspects: Geography and geomorphology, various species, past and present land uses, and archaeology and history.

## 7.2. RNP Management Plan

The Management Plan of the Richtersveld National Park (RNP) covers the park's biodiversity and its landscapes. It also permits mining "within a framework of best environmental practice", identifying areas within which mining activity would be undesirable, specifying a process for the approval of prospecting, how to manage the impacts of mining activities, including subsequent rehabilitation of mined areas.

The Management Plan also aims at protecting the "self-identified" cultural practices of the local people and identifies the Richtersveld Cultural and Botanical Landscape (RCBL) WHS as the last place in the world where Khoe people are able to maintain a traditional nomadic herder lifestyle. It specifically prescribes maintenance of Nama-identity, language and culture. This covers traditional forms of natural resource utilisation (stock farming, grazing, and the use of plants for food, medicines, construction and fire), the expansion and revitalisation of traditional arts, and the training and education of local people in appropriate directions.

The Management Plan contains specific objectives, measures and initiatives for the monitoring of cultural resources in the park in specific cultural heritage monitoring areas, and specifies a clear system for doing so. It also specifies the need for a cultural heritage area management plan, with measures to control visitors, for interpretation and making available information. This system seems to cover archaeological sites as well.

Other sections of the Management Plan contain additional measures including:

- Development of a park heritage inventory, complete with the grading of sites according to importance;
- The development of a heritage management programme for the park;
- The development of a heritage interpretation strategy and programme;
- The establishment of an educational petroglyph route at Sendelingsdrift;
- The development of a Nama cultural and environmental educational centre, and;
- The development of standardised material for training and interpretation, and linkages with educational programmes.

These objectives and sentiment are reflected in all sections of the Management Plan, including the section on tourism and tourism management. Importantly, the park is zoned for different activities, and identifies sensitive and special areas that are subject to stricter regulations and restrictions on activities including mining. It also proposes regular

independent audits of the biophysical environment, something which is not currently required by legislation.

### 7.3. ARTP Joint Management Plan

Though each park has its own Management Plan, certain items and cross-border issues require a joint management approach. The Joint Management Plans aims to harmonise approaches to conservation and has five overarching objectives, two of which have direct relevance to heritage:

- To promote alliances in the management of biological and cultural resources (…), and;
- To enhance ecosystem integrity and natural ecological processes (…).

The Joint Management Plan further aims to harmonize zoning in the constituent parks through a Joint Zoning Plan. This will form the basis for the development of any future tourism development plans. One of the objectives is to define geographical areas predisposed to various land uses. The Plan also deals with biodiversity conservation, including sustainable use, species management and habitat protection, also research and planning, and the closure and rehabilitation of mines.

Regarding cultural heritage the vision of the ARTP is to: "Conserve the archaeological, historical and cultural resources of the ARTP through an appropriate, dynamic and adaptive management process, whilst optimising the tourism and educational potential of such resources, where appropriate; and to recognise and protect the rights, needs and aspirations of the local indigenous communities". Its objectives include the following:

- Documenting the history of the ARTP;
- Research and protection of the archaeological, historical and cultural artefacts or resources of the ARTP;
- Facilitate appropriate access to selected sites for tourist appreciation and education;
- Accommodate traditional land uses within the ARTP;
- Facilitate cross-border movement of communities.

The Joint Management Plan also contains a number of detailed objectives dealing with community development and beneficiation, many of which have some relevance to heritage development.

## 7.4. Gaps in the Management Plans

**Introduction**

The management plans represent a good beginning in heritage management, and each contains components or emphases that could help to improve the other. The ARTP Joint Management Plan, for instance, contains a number of important and innovative elements that can contribute substantially to the protection and development of heritage in the ARTP. If successfully implemented, it will greatly facilitate cultural exchange and promote cultural revival in the region. The Richtersveld National Park (RNP) Management Plan contains strong management mechanisms, while the /Ai-/Ais Hot Springs Game Park (AHSGP) Management and Development Plan place more emphasis on geological heritage. Gaps in the management plans are discussed below.

**Geological and palaeontological heritage**

This aspect of the individual management plans can be much developed, and an overarching assessment of geological and palaeontological heritage could help to ensure that important elements are preserved in the park as a whole. Specific landscapes, landscape features or rock formations could be identified, and more attention given to the identification and mitigation of risks to geological and palaeontological heritage. This is particularly important in light of the overall risk posed by mining to the geological and palaeontological heritage of the ARTP.

**Natural heritage**

The management plans cover the natural heritage of the ARTP fairly well and the nuts and bolts of biodiversity conservation are generally in place. However, more attention could be given to the human dimensions of biodiversity conservation.

Stronger linkages should be built between biodiversity conservation and that intangible heritage of the ARTP. The technical presentation of botanical knowledge should to be approached in a manner that promotes rather than undermine such a local knowledge and terminology, thereby strengthening the links between people and their environment.

All in all, the plans could focus more explicitly on viewing the natural landscape through different eyes. This could involve a stronger focus on the aesthetics of natural landscapes and iconic species, and the linkage between these and the intangible heritage.

**Archaeological heritage**

Management plans tend to conflate archaeological heritage with cultural heritage, or treat these in an undifferentiated manner, arguably with the exception of the /Ai-/Ais Hot Springs Game Park (AHSGP) Management and Development Plan. Doing so makes sense in some respects; however, archaeology as a category of heritage requires a highly specialised approach, strategies and measures. A more nuanced approach would be easier to develop if the archaeological heritage is dealt with as a discrete category of heritage, along with its own measures and principles for protection, research, and interpretation. By conflating archaeology and culture one also runs the risk of promoting misconceptions as especially older sites are difficult to associate with specific cultures, linguistic or ethnic groups.

**Cultural heritage**

The management plans make explicit reference to cultural heritage and the need to protect and develop this. The /Ai-/Ais Hot Springs Game Park (AHSGP) Management and Development Plan specifically mentions cultural heritage, though it remains on a fairly general level. Nama cultural heritage is clearly reflected in the Richtersveld National Park (RNP) Management Plan as in the ARTP Joint Management Plan. The clear focus on cultural heritage, especially Nama cultural heritage, can be strengthened throughout the ARTP by means of more coordinated approach on either side of the border, and active promotion of cultural exchange between communities living in and around the ARTP. This could make a major contribution to the revival of Nama culture.

The management plans should ideally also widen the scope of their cultural heritage management objectives. Attention to the Khoe-Afrikaans and Afrikaans linguistic heritage, especially Khoe-Afrikaans, would be entirely appropriate and could add considerable value to the ARTP as a tourism destination, as to the local people. In this respect particular attention should be given to place names and a policy put in place to prevent negative impact of the tourism industry such as translation of local names into English. The existing PPF database and maps of the region, for instance, already contain many such translations and represents a slow but highly erosive threat to the cultural integrity of the landscape.

More attention could also be given to the colonial and apartheid era heritage, including the settlement of farmers and Trekboers in the region, World War I (WWI) and its aftermath. This becomes relevant especially in the context of the wider ARTP and is entirely in keeping with the cultural landscape approach. In part this is because historical events important to

the history of the Nama occurred during this period and the focus on Nama culture need not be subordinated by this.

**Architectural heritage**

Apart from the Nama heritage, architectural heritage receive little attention in the various management plans. Remedying this will require a high resolution survey of the entire ARTP and the development of a dedicated set of management objectives. Action is needed to prevent the slow erosion of this resource.

# 8. Conclusion

The ARTP has a significant, but substantially under-researched heritage. Fully mobilising this heritage in the different categories identified through more intensive and thorough heritage surveys in the field, would add much value to existing tourism activities in the ARTP. It would also enhance the overall tourism capacity of the ARTP in that new niche markets, like geotourism, could become available, potentially creating new streams of visitors and economic activity. Realising this potential will depend on a more structured approach to heritage identification, development and protection, and communication and training.

The ARTP and its people could therefore benefit substantially from an enhanced focus on heritage in all its complexity and depth. However, particularly the intangible heritage is vulnerable to change, to a lesser degree also other types of heritage, such as natural landscapes, iconic species, and even geological heritage. Urgent action is needed to prevent the erosion of certain categories of heritage, particularly the intangible heritage.

This report has been a first step towards developing a focused and coherent strategy for heritage protection and development in the ARTP. Further surveys are needed to develop high-resolution inventories and identify sites on the ground. Further steps would involve assessing vulnerabilities, developing management objectives, and implementing these. Most of all, there is a rethinking required of what the essence of the ARTP is; while it has well-acknowledged botanical value, it should be recognised that its botanical assets are closely linked to, and part and parcel of a cultural landscape; without this cultural dimensions that glues together people, places and meanings and ultimately history memory and identity, the ARTP will remain a protected area that is functioning well below it potential. This re-emphasis should be what is driving the next review of the respective management plans and an overall management and development plan for the ARTP.

Individual parks are able to tackle the challenge of mainstreaming heritage into the region independently, by integrating additional objective is relating to the different heritage categories into their management plans. The overarching ARTP Management Plan has already demonstrated the advantages of integrated planning. It is therefore strongly suggested that the Joint Management Board tries to develop synergies and to coordinate heritage research, development and protection. This would make sense as the communities and the heritage concerned are truly transfrontier, and a transfrontier approach is more likely to generate the desired results.

One overriding realisation from the work that led to the current report, is that the transfrontier area between Namibia and South Africa is very much one large cultural landscape. The Orange River is a colonial and modern-day border that administratively separates people, whereas for thousands of years it united people because of its life-giving waters, the greenery that can sustain game and livestock even in the most severe droughts, and because of the shelter given by the mountainous terrain. The same Nama people live on the two sides of the river, the petroglyphs of the Big Snake are the same, the legends and stories are similar.

The heritage assets of the ARTP are truly significant on a global scale. During the recent filming of the ARTP for the SANParks Youth and Parks series the youth participants coined the following description for the ARTP that says it all: the *Biggest*, the *Oldest* and the *Richest*. This phrase refers to the biggest canyon in Africa occurring there, the oldest paintings in Africa namely those in the Apollo 11 cave, and the richest biodiversity of any arid or semi-arid area in the world. There is a strong case to be made to extend the current Richtersveld Cultural and Botanical Landscape (*RCBL)*, a World Heritage Site (WHS) to include the ARTP, thereby creating the first Transfrontier World Heritage Site in Southern Africa.

Inscription on the World Heritage List will go a long way to promoting the global significance of the ARTP and will ensure that it's diverse and valuable heritage be protected under United Nations Educations, Scientific and Cultural Organization (UNESCO) standards for World Heritage Properties.

This report was produced by EcoAfrica Environmental Consultants
with the assistance of numerous parties and support from Peace Parks Foundation