

Close down of RAMPPII



RAMP Phase I



- 2003 – UKZN received R3 077 022 from the NLDTF for the pioneering first phase of RAMP in Cathedral Peak.
- The objectives were
 - Detailed recording of rock art sites within Cathedral Peak
 - Exploration for previously unrecorded sites
 - Experiment with using terrestrial photogrammetry as a means of digital documentation
- The photogrammetric methods were successful but very time consuming and technical - not suitable for large scale modelling of rock art sites.
- The possibilities of laser scanning technologies were introduced and this led to the second phase of RAMP, using 3D laser scanning and other technologies to create the first digitized archive of San rock art in the Drakensberg.

RAMP Phase II

- RAMP II is using state-of-the-art technology to create the first digitized archive of every known San rock art site in the Drakensberg mountain range, using 3D laser scanning, digital photography, 360° digital video, GPS plotting of each site and GIS web-based mapping systems.
- All known sites (some not visited since the 1970's) are being re-documented and their condition re-assessed, to provide an accurate and up-to-date archive that will not easily be destroyed.

Objectives

The Project's four key objectives remain largely unchanged, namely:

1. To digitally archive and map all the rock art sites within the Ukhahlamba Drakensberg range using 3D laser scanning.
2. To continue to build and update a Geographical Information System (GIS) website for researchers and educational institutions
3. To continue the work of the first phase by placing a team in the field for a long period of time with the sole aim of conducting a detailed exploration of the area for additional, unrecorded rock art sites.
4. To create long term permanent employment opportunities within the local community which would involve specialist training.

RAMP II can be separated into 2 main components

1

Recording of rock art sites by the project archaeologist and entering of data into the RAMP database



2

Spatial documentation of rock art sites by project surveyors and GIS analysts



RAMP database

- Contains just under 6000 sites, of which 1221 are rock art sites
- 450 sites documented by RAMP since June 2011
- 80 are new sites
- Allows for the full recording history for each site to be included
- Site records have been linked to the accessions table - so artefacts kept in the museum are linked to the sites that they came from
- We will also be linking 3D scanning datasets to the database

The database

Natal Museum - Archaeology Department



Natal Museum - Archaeology Department

- <edit or create site record
or print/view>
- <site record
- <iconographic report
under construction
- <management and monitoring report
under construction
- Full report for rock art sites (including
iconographic and management
reports) - **UNDER CONSTRUCTION**



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

nhc
National Heritage Council
SOUTH AFRICA

ROCK ART
MAPPING PROJECT

African
CONSERVATION TRUST

EZEMVELO
KZN WILDLIFE

NATIONAL LOTTERY
NLDTF

Entering site information

site records

NATAL MUSEUM
ARCHAEOLOGY DEPARTMENT

[edit or create a site record](#) [find site](#) [printable version](#) [create new](#)

2632CC 001

SITE NUMBER: 2632CC 001

Site category: ESA MSA LSA ISA RA
 EIA LIA IIA HIS

Recorder's site number:

Official name:

Local name:

Map sheet: 2632CC Abercorn Drift

Site coordinates: S E GPS reading

Aspect: **Elevation:**

Owner/Occupier:

Accession number:

Accession institute:

Date of 1st recording:

1st recorder's details:

Other site visits:

Where stored?

Webalbum:

Additional documentation:

Site description

On the south bank towards mouth of the Usutu river, behind the silt terrace, is a gravel seat, on the slope up to 70' above river, where it ends sharply. It consists mainly of small pebbles from the basement rocks upstream. At the entrance to the port is a well developed silt terrace 30' high on one bank or the other. No artefacts were found on it, and no basal gravel was seen. Within the upper part of the port are the remains of a sand terrace about 50' above the river. It is largely eroded, but may be seen particularly at the mouth of the tributaries. It overlies a fairly large sub-angular and rounded pebbles, largely of local basalt, but also from older rocks upstream. It may be seen only in a few places, and contains no artefacts. It occurs up to 30' above the river and seems fairly thick, but the rock terrace was not seen. Near the mouth of the port on the north bank, close to Abercorn Drift point, I saw the sand terrace but no trace of underlying gravel. Among the pebble of the 70' terrace are artefacts which seem to be rough MSA, most unrolled, a few slightly rooled but probably due to abrasion. Unrolled: 1 large quartzite end scraper, a second was discarded, and a basalt one was not found in Natal Museum type nondescript. 1 medium-sized quartz end scraper, 2 basalt pebble choppers and 1 quartzite small pyramidal core. Slightly rolled: 2 small high backed cores, typically not

Comments/References

Key image description:

Directions to site:

I must have reached both banks of the Usutu river above the port from Swaziland, and have entered the port only on the north bank, on the Swaziland side, as none of this note refers to South African territory. Part of the work may have been slightly west of E32 00 in 2630 Mbabane.

Site type:

Merits conservation/salvage?

Threats? What threat?

Record: of 5942

go to... [ICONOGRAPHIC](#) [MANAGEMENT](#)

Management and monitoring

Archaeological Site Records - Database /Access 2002 - 200

site records

NATAL MUSEUM

edit or create a site record find site printable create new

management and monitoring

NATAL MUSEUM
ARCHAEOLOGY DEPARTMENT

management and monitoring National site number 2632CC 001

Date of assessment

Assessed by

Affiliation

Significance

Justification

Priority

Justification

Threats

Name/describe the threats

What damage has the rock art suffered?

water animal activity

graffiti mineral deposit

fee exfoliation

dust erosion

organic growth collapse of shelter

vegetation

any significant details or other kinds of damage

Owner/occupier

Contact details

Local authority

Contact details

Open site?

Who visits the site?

Describe the site's accessibility

Water located at/near the site

Water details

Management or monitoring in place Describe any management or monitoring strategies in place or suggest if required.

Management or monitoring required

Record: 1 of 5906

Iconographic detail

iconographic detail

NATAL MUSEUM
ARCHAEOLOGY DEPARTMENT

iconographic detail National site number 2730DC 003 Comments:

Key image hyperlink:

Key image thumbnail:

Key image description:

ANIMALS... antelope, felines + other mammals

indeterminate antelope
 eland
 kudu
 gemsbok
 reedbuck
 rhebok
 bushbuck
 roan
 blesbok
 wildebeest
 hartebeest
 rain animal
 therianthrope
 other antelope - specify/describe/suggest:

indeterminate feline
 lion
 leopard
 other feline - specify/describe/suggest:

indeterminate mammal
 elephant
 giraffe
 buffalo
 zebra
 aardvark
 hyena
 warthog/bushpig
 baboon
 cow
 horse
 dog
 sheep
 other mammal - specify/describe/suggest:

birds

indeterminate bird
 ostrich
 guineafowl
 other bird - specify/describe/suggest:

insects

bee(s)
 moth
 flying ant
 other insect - specify/describe/suggest:

aquatic animals

fish
 crab
 other water animal - specify/describe/suggest:

snake **reptiles**
 other reptile - specify/describe/suggest:

HUMANS... woman man child colonial figure indeterminate

anatomical details

penis
 line through penis
 breast
 protruding buttocks
 facial features
 elongated body/limbs
 whiskers
 other anatomical detail - describe:

accessories

cloak/kaross
 apron/skirt
 feather
 flywhisk
 stick/spear/staff
 rattle
 bag
 tassel
 knobkierie
 bow
 quiver
 arrow
 digging stick
 musical instrument
 gun
 body patterning: dots
 body patterning: line or band
 other clothing or accessory - describe:

postures and actions

sitting/squatting
 fighting
 walking
 clapping
 dancing
 bent forward
 running
 hand(s) to face
 other action or posture - describe:

bleeding from nose
 carrying game
 drawn bowstring
 wounded animal
 lying down
 hunting
 knee(s) bent
 riding a horse
 arms raised

OTHER SUBJECTS...

pattern - shape - structure

dot(s)
 cross
 line, rope or stripe
 zig-zag
 trap or net
 enclosure
 house
 ladder
 other - describe:

plants

tree
 flower
 bush
 other plant - specify/describe:

ROCK ART TRADITION

fine-line painting
 "copy-cat" painting
 geometric painting
 finger painting
 engraving
 graffiti
 graffiti over rock art
 recent/historical art
 other style or tradition - specify/describe/suggest:

probable affinity

San
 Khoi
 Bantu
 other
 - specify or suggest:

COLOUR... paint and pigment

monochrome
 bichrome
 polychrome
 shaded
 crayon-like
 brush-stroke
 purple
 red
 orange
 brown
 black
 grey
 white
 blue-grey
 yellow
 beige
 pink
 peach
 other colour - describe:

Record: 1

Site report

NATAL MUSEUM ARCHAEOLOGY DEPARTMENT

Site category:

	E	M	L	I	RA
SA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	E	L	I	HIS	

Recorder's site number: PV K1

Official name: Bushman's Nek-Garden Castle
State Reserve

Local name: Tsuay's Shelter (Painter's
Shelter)

Map sheet: 2929CC Bushman's Nek

Site coordinates: S29 48 06.5 GPS reading
E29 11 12.5

Aspect: North East

Elevation: 2345m

Owner/Occupier: Ezemvelo-KZN Wildlife (Bushman's Nek-Garden Castle) ex-Natal Parks Board

Directions to site: None obtained from PJV. Previously recorded coordinates S29 47 25 E29 11 09 (map reading).

V. Nardell (11 August 2010): From Langalibalele Cave exit cave along path which you enter from. Walk above cave and proceed up firebreak to 2nd cliff line, turning right and contouring up towards the higher mountains overlooking the Mzimude Valley area. Continue up and around for several km until reaching the a large rock split in half, whereupon continue along the path to the shelter a few hundred km further along on the left side and situated at the head of the valley. The original map location provided by Vinnicombe is incorrect.

Site type: Shelter

Merits conservation/salvage?: Yes

Threat What threat?: Exfoliation, Graffiti, Water seepage, Organic growth

Pictorial record: Analog: Hone Transp: 1998/17/12-22.
Redrawings A52 part, A376-382: B/W negs 1981/11/12, 1981/17/1, 8; 1981/19/6.8;
1981/21/3; 1981/25/2. Painted rocks A5-8, 10-13, 27, 28, 52 - negs: 1997/3/42-43, 1-8,
1997/4/37-41, 1997/5/22-35. Colour prints: P79-84. Carter negs: 1981/32/1-18.... Tracings:
PV237-248, PV234-236. Scanned by SARADA.

Digital: RAMP2 (2010) photographs + video.

Where stored?: Natal Museum.... RARI, JHB

SARADA scans: www.sarada.co.za online archive (+ NM SARADA DVD backup drive).
Digital photos: L Drive (Regional Recording Centre)

Recorder's details: P. Vinnicombe, 1950s

Date of 1st recording:

Other site visits: John Hone 1998.
Vicky Nardell, Rock Art Mapping Project (11 Aug 2010)

Key image description VN (11 Aug 2010): Upside down bichrome eland in red and white, centre of shelter close to the upside down horse. There is a bichrome therianthrope figure in a kaross walking above the forelegs of the eland, carrying an eland on its back. A white eland head with elongated neck raises up from the lower chest of the eland and another bichrome eland is

Site description:

painted above the back end of the upside down eland. Below the upside down eland's neck there appears to be a 2nd white eland head emanating from the base of it's neck.

Surface coll: sherd with fingernail impressions.

Painted rocks - A5, 6, 7, 8, 12, 13, 52. ?A9, 10 11, 27, 28 from this site. Tracings in Natal Museum: Nos A376-382.

VN (11 Aug 2010): The shelter is +- 45m long, 15m high and 6-10m deep. The site is characterised by distinctive black streaks down the overhang. The site also has a very good view down the Mzimude Valley area and towards Crystal Waters Farm. The shelter is very open and flat, with grass and sand on the floor and a large rock situated in front of the main body of art towards the centre of the shelter. The paintings are highly significant and numerous - no count has been done but there are probably well over 1000 images within the shelter, some densely covering sections of the centre left (looking in) of the shelter but without a large amount of superimposition. The subject matter is extremely varied, with numerous depictions of humans, theriathropes, antelope (eland, kudu, reedbuck), leopard, giraffe, reindeer like creatures, horses and baboon, alongside a range of 'symbolic' depictions. The condition of the paintings is excellent with many still clearly visible and little natural damage in most areas of the shelter. There is some graffiti in areas and human use of the shelter is probably the greatest potential threat to its long-term welfare. Colours of the depictions are predominantly orange, red and brown, with some black, pinky-white and yellow.










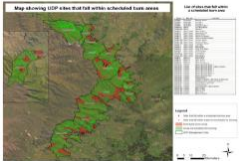



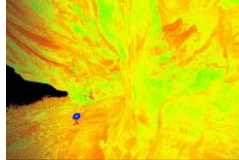
Comments/References: In Natal Museum 7 painted rocks and possibly 5 more from this shelter as well as 7 redrawings.
In site record file in Natal Museum: 3 pics of A380, and Vinnicombe's 2 ink drawing used in People of the eland, p224, 253.
RARI - JHB redrawings: PV237-248 (RARI PV234-236 = NM A378, A52).
REFERENCES: Vinnicombe, P. 1976. People of the Eland. Pietermaritzburg: University of Natal Press, pp40, 41, 187, 224, 253.

VN (11 Aug 2010): A good range of stone tool debris and some artefacts were located around the shelter floor, especially nearby the most heavily painted area towards the left centre of the shelter.

See also www.sarada.co.za - SARADA Site ID: RSA GAC39

Additional documentation [Site documentation/2929CC/2929CC003](http://www.sarada.co.za/site_documentation/2929CC/2929CC003)

Spatial documentation of rock art sites

Type	Equipment used	Dimension	Application for rock art documentation	Example
360° 3D Digital video		3D	Archaeologist's narration of rock art sites	
360° High resolution Panoramas		2D	Capture finer detail of rock art Ability to zoom in and see faded paintings Add colour to 3D scans	
Virtual tours		2D	Virtual walk-through of the entire site Excellent tool for tourism and education	
Updated GPS coordinates		2D	Accurate location information for rock art sites which is necessary for conservation and protection purposes	
Geographical Information System (GIS)		2D	Spatial representation of rock art sites Data query	
3D terrain models		3D	Better visualisation of rock art locations	
3D Laser scanning		3D	Can capture 3D nature of rock art Creating a permanent record of rock art Monitoring change or deterioration	





Key deliverables

- A high density point cloud 3D model produced by laser scanning integrated with the on-board digital photography.
- A surface model (virtual cave) of each site.
- A GIS containing information (including links to the outputs from objective one above)
- A secure server limiting internet access to the GIS system to approved researchers.
- A website containing GIS data containing information from the GIS relating to non-sensitive tourist oriented sites.
- A locally recruited and trained team leader will lead a detailed and thorough exploration of the area in which the mapping team is working.
- All new and unrecorded rock art sites will have a GPS position and a general description.
- This information is passed onto the mapping team who will include the latest sites into their mapping schedule.

Project employment

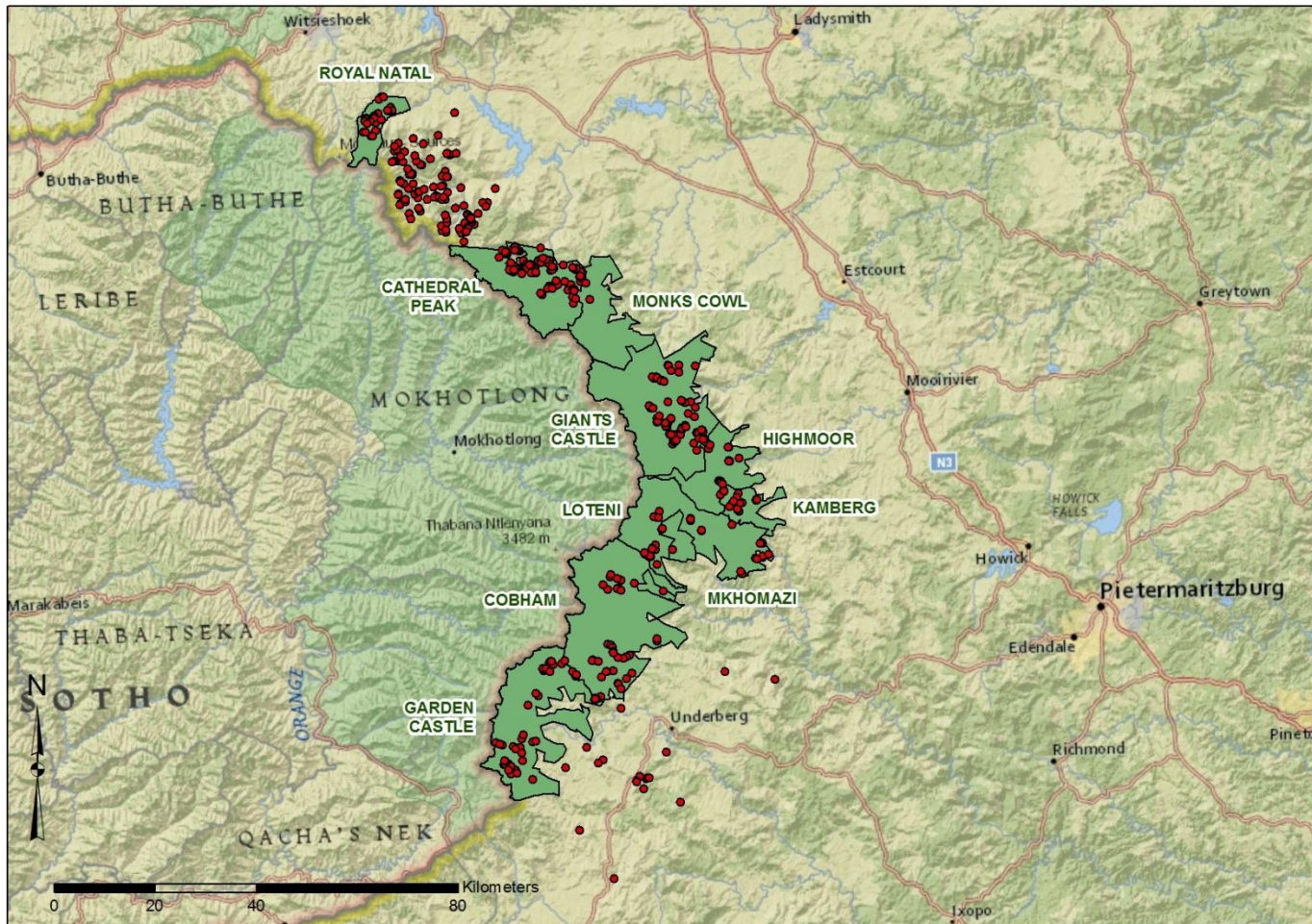
Position	No.	Name	Length of employment (years)
Project director	1	Angus Forbes	3
Project manager	1	Carl Grossmann	3
Compliance officer	1	Francois du Toit	3
Archaeologist	2	Vicky Nardell Justine Wintjes	3
Archaeologist's assistant	1	Jeff Brink	
Archaeologist's field assistants	2	2 community members per trip	
Student archaeologist	1	Pholoso Ndaba	1
Site verification and training	3	SOS Parks (Tommy Topp & team)	3
Survey team leader	1	Kwanele Mbatha	3
Finance	1	Paddy Padayachee	3
Technical UKZN staff	1	Maciej Michalak	1
Community liaison officer	1	Meridy Pfothenauer	3
General Assistants	2	Khumbalani Ndaba Bawanile Mtolo	3
Buffer zone liaison officer	1	Sue Mckenzie	3
Driver	1	Curtis Kroutz	3
Community rock art groups	18	Local community members	3
Total	38		

Land survey training

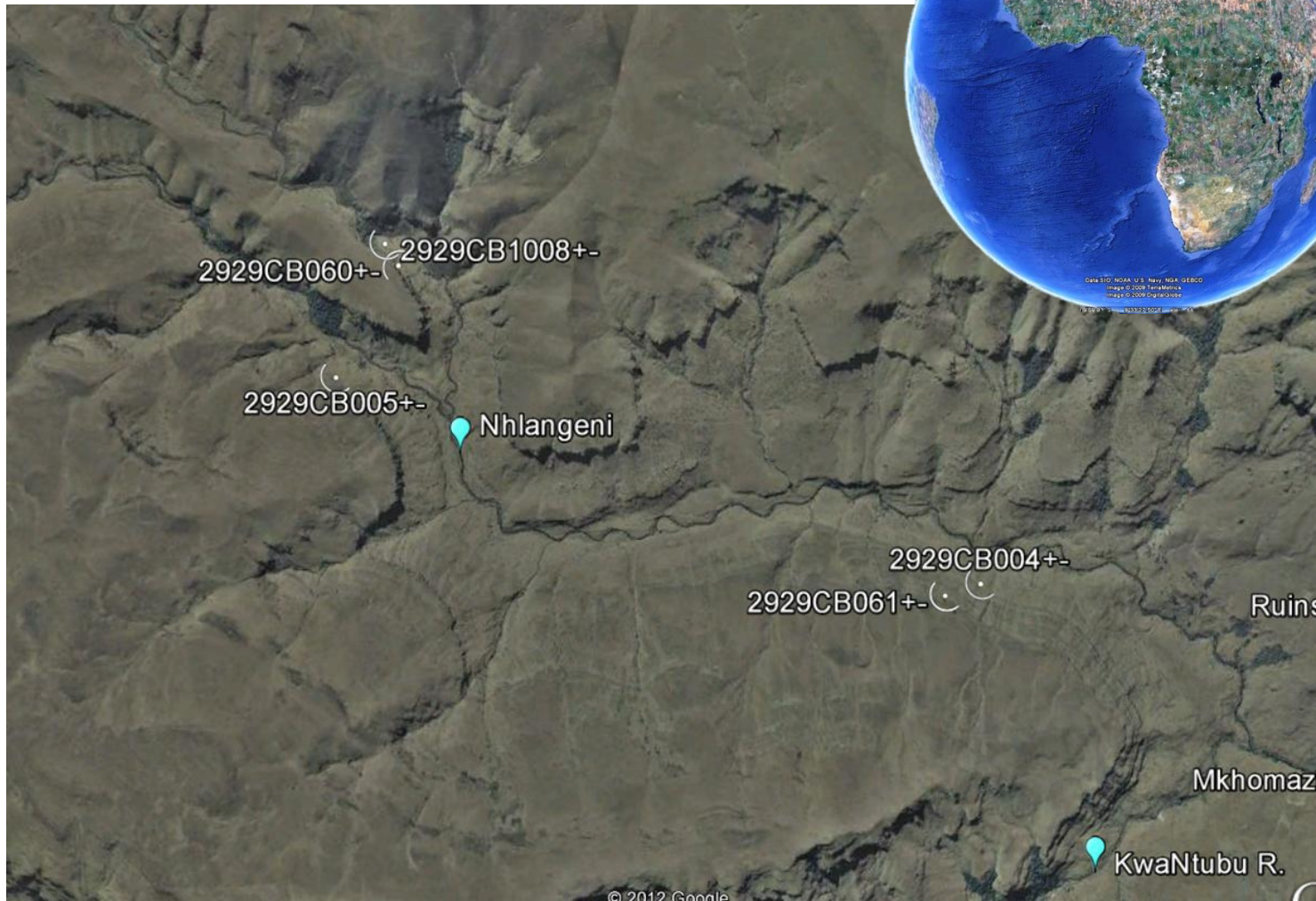
Name	Starting position	National Diploma Surveying	Current Position	Length of employment (years)
Sydwell Xaba	Land survey student		RAMP head processor	3
Sifiso Shange	Land survey student		RAMP project	3
Senzo Mngomezulu	Land survey student		Land surveyor for CoGTA	2
Thulebona Zulu	Land survey student		Land surveyor for the Department of Transport	2
Fortune Gwamanda	Land survey student	In progress	RAMP project	1
Sthembiso Khawula	Land survey student	In progress	RAMP project	1
Siyathokoza Mthembu	Land survey student	In progress	RAMP project	1
Sithembiso Nkonyane	Land survey student	In progress	RAMP project	1

Map of areas surveyed

- 450 sites in UDP
- 80 sites in Mnweni



Google Earth Layer



Exciting new findings

- 80 new sites!
- Red ochre paint box site
- Various artefacts









Natal Museum database

- All data has gone to the Natal Museum to be entered into the database
- Justine Wintjes is employed to input all the field data into the Natal Museum in correct formats and carry out integrity checks.



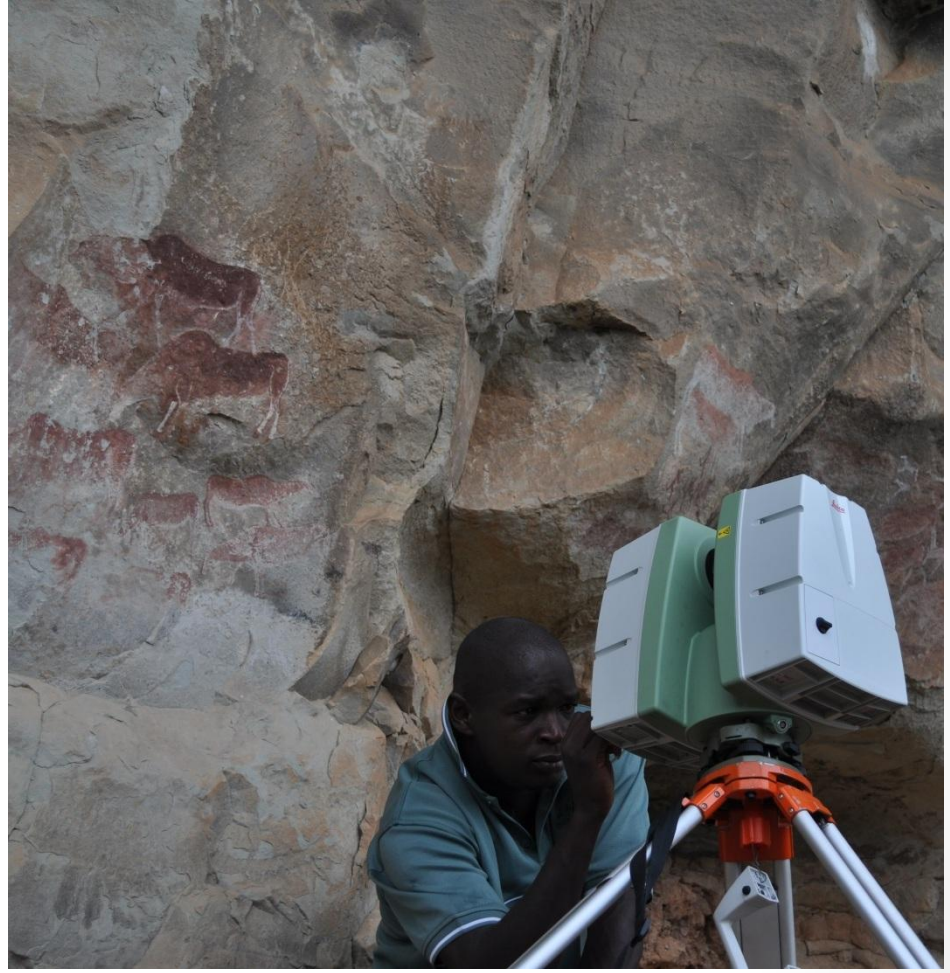
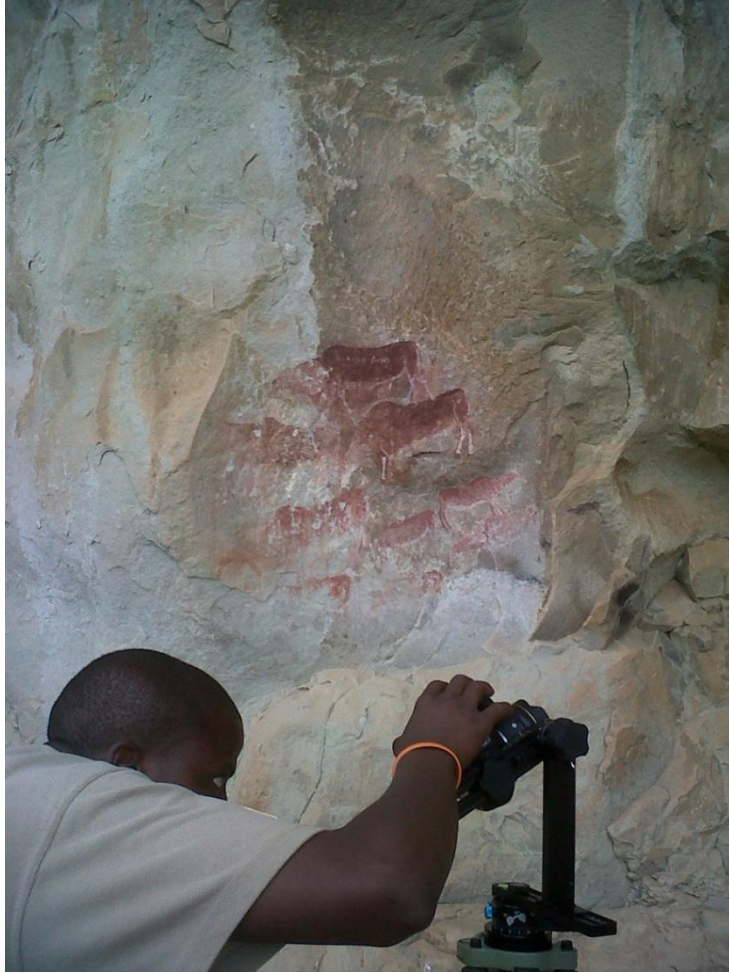
Example - Esikoloweni Shelter

- Cathedral Peak
- 120 m long and >3m high
- Large site - 616 paintings
 - Animals: mainly eland, rhebok and hartebeest
 - Men with hunting gear
- Signs of damage
 - Many of the paintings are very faded
 - Seepage and vegetation present of rockface



Scan of Eskolweni Site





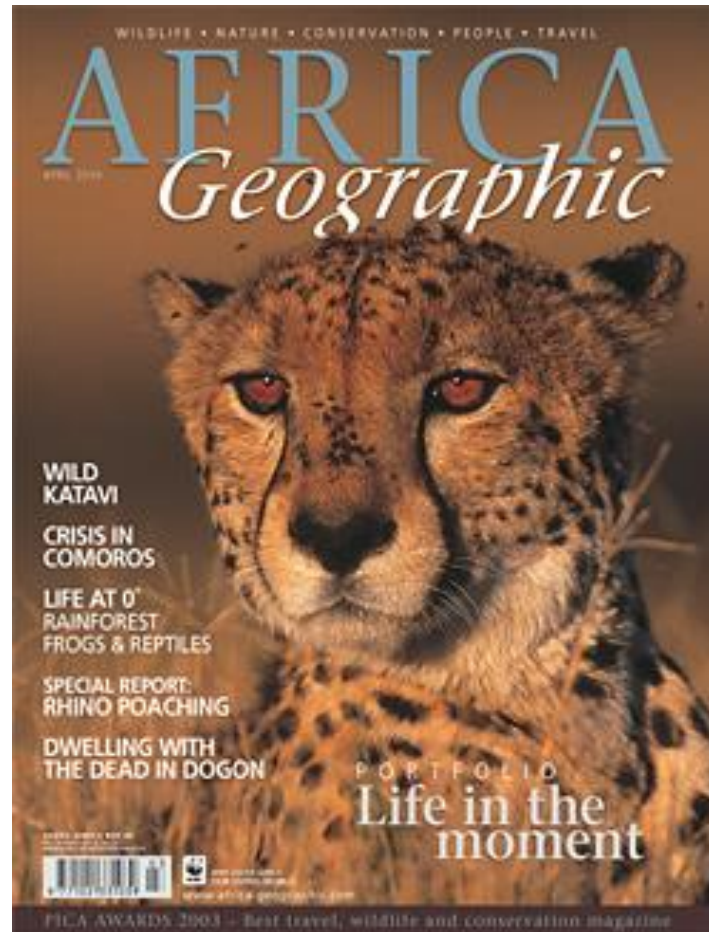
Scan of Eskolweni Site, Cathedral Peak



TruView web-viewer



Popular media





Thank-you