

Makapan and Taung (South Africa)

No 915 bis

1. BASIC DATA

State Party: South Africa

Name of property: Makapan Valley and Taung Skull Fossil Site

Location: Makapan Valley:
Limpopo Province
Taung Skull Fossil Site:
North-west Province.

Date: 2 February 2004

Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *site*.

The property nominated is a serial extension of the 'Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai and Environs', inscribed on the World Heritage list in 1999 on the basis of criteria iii and vi.

Brief description:

The Taung Skull Fossil Site is the place where in 1924 the celebrated Taung Skull - a specimen of the species *Australopithecus africanus* - was found.

Makapan Valley houses in its many archaeological caves – in the form of sediments/fossils and archaeological vestiges – traces of human occupation and evolution dating back some 3.3 million years.

2. THE PROPERTY

Description

The Taung Skull Fossil Site covers an area of 158.7429 hectares (ha), with a buffer zone of 3.387 ha. It consists of archaeological, paleontological, historic and mining sites which are important in heritage terms.

Makapan Valley covers an area of 2,220.0495 ha, with a buffer zone of around 55 ha. It consists of paleontological, archaeological and historic sites.

a/ Components of the Taung Skull Fossil Site:

This ensemble includes archaeological sites whose importance is widely recognised. They consist of the following 4 caves:

- Wittrans Cave,
- Black Earth Cave,
- Equus Cave,
- Power House Cave.

It also includes a rich series of paleontological sites, some of which are well known to the most eminent specialists in prehistory and paleontology. They consist of the following 19 sites:

- Dart Pinnacle,
- Hirdlicka's Pinnacle,
- Hirdlicka's Deposits,
- Dart Deposits,
- Tobias Pinnacle Deposits,
- Berger Cave Complex,
- Lucky Moon Cave,
- LSN Cave,
- Innominate Cave,
- Quinney Cave,
- Cut-through Alley,
- Black Earth Cave
- Peabody's Equus Site,
- Equus Cave,
- Blom Cave,
- Satan Cave,
- Alcove Cave,
- Oaxland Large Mammal Site,
- Acacia Cave.

Lastly, it includes historic sites and mining sites (vast disused limestone quarries) which are important from a heritage viewpoint: in particular Norline Quarry at Buxton.

In this long series, it is primarily the paleontological and paleo-anthropological component which has made the Taung Skull Fossil Site so celebrated. This applies not only to the scientific world but also to the cultural world which is fascinated by the origin and history of humankind, in view of the fact, which is now indisputable, that Africa is the cradle of humankind (as had been predicted by Charles Darwin writing as early as 1871, in *The Descent of Man*). It will be noted that a large proportion of the caves where significant finds were made bear the names of the researchers who explored them (Professors Dart, Hirdlicka, Quinney, Tobias, etc.).

In this respect, the most famous name remains that of Professor Raymond DART, who proposed the term *Australopithecus africanus*, given in 1924 to a hominid specimen revealed by the Taung Skull Fossil, whose species is of great importance in the evolution of the hominisation process. The place in which the Taung Skull Fossil was found is known as *Dart Pinnacle*.

b/ Components of Makapan Valley:

This ensemble, of acknowledged richness, consists of:

Paleontological sites:

- Makapensgat Limeworks
- Buffalo Cave
- Peppercorn's Cave and Katzenjammer Cave

Archaeological sites:

- Cave of Earths and Hyaena Cave
- Ficus Cave and the Ficus Iron Age Site

- Many open-air sites

Historic sites:

- Historic Cave
- Makapansgat

History

This inscription application is an extension of the property inscribed on the World Heritage List in 1999 (on the basis of criteria iii and vi) under the name: "Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai and Environs".

The whole of this zone contains essential elements which define the origin and evolution of humankind. Thus, as a result of exploration and scientific analysis:

- geological strata have revealed the first traces of hominids in southern Africa, dating back around 3.5 million years;

- stone and bone tools, dating back from 2 to 1.5 million years, have been uncovered, particularly at the time of the discovery in 1936 by Professor Robert Broom of the first adult *Australopithecus*;

- fossil elements have enabled the identification of several specimens of early hominids, linked to the *Homo* genus, a collateral ancestor of modern man (*Homo sapiens sapiens*), more particularly specimens of *Paranthropus* dating back between 4.5 million and 2.5 million years: *Australopithecus africanus* and *Australopithecus robustus*.

- lastly, evidence of the domestication of fire, another specific characteristic of human behaviour, has been detected, for the period extending from 1.8m to 1m years ago.

Management regime

Legal provision:

Taung Skull Fossil Site:

In May 2004, i.e. three months after submission of the nomination dossier, the status of "National Heritage Site" was conferred on this ensemble. This means that it is now protected by the provisions of the *National Heritage Resources Act* (NHRA), and benefits from the constant attention of the *South Africa Heritage Resource Agency* (SAHRA).

As a result, the buffer zone can immediately be declared as a "protected space" and retain this status for a period of 2 years, leaving time to find sustainable solutions for the preservation of the zone.

Makapan Valley:

This ensemble was proclaimed a *National Heritage Site* in 2002, and thus benefits from the protections mentioned above for the Taung Skull site.

Important note:

In addition to the protection conferred by the National Heritage Resources Act, there are other legal safeguards relating to land use, development and environmental impact in the zone:

- mining exploitation is governed by the Quarries and Mining Act (no. 50, of 1991);

- the provisions of the Environmental Conservation Act (no. 73, of 1989) stipulate that impact studies are compulsory prior to all construction work;

- the provisions of the National Environment Management Act (no. 107, of 1999) state that management plans must be drawn up and approved by the governmental committee for environmental coordination;

- lastly, the Development Encouragement Act (no. 67, of 1995) provides for the devising, by the provincial and local authorities, of land development objectives (agriculture, tourism, leisure). This enables the local control and protection of sites against all damaging land use and risks relating to urban sprawl.

Management structure:

Taung Skull Fossil Site:

Five agencies have management authority:

- the *South African Heritage Resources Agency* (SAHRA), a national agency established in accordance with the provisions of the NHRA;

- the *North West Department of Agriculture, Conservation and Environment*, to which authority is devolved particularly relating to the control of animal and plant material;

- the *Department of Water Affairs and Forestry* (DWAF) exercises control over all matters pertaining to forestry protection, and to surface and ground water;

- the *Greater Taung Municipality*, a local government structure in charge of the Integrated Development Plan and the Spatial Planning Framework, and whose administrative territory is adjacent to the Skull Fossil Site.

- the *North West Parks and Tourism Board* (NWPTB) an organisation established in 1997 to manage tourist activities on the site.

It should be noted that because of its use of the resources of the site, the *Batlapeng Tribal Authority* may be involved in the process of managing this site, which is immediately surrounded by their living area.

Makapan Valley:

Five agencies are involved in the management of this site:

- the national agency (SAHRA), naturally;

- the *Limpopo Tourism and Parks Board* (LTPB), which - in addition to its responsibilities in tourism - owns part of the land to be protected;

- the University of the Witwatersrand (WITS), which not only regulates scientific research activity, but also owns some 77 hectares of the zone;

- An integrated provincial and local structure - the *Makapan Valley Project Management Committee* (MVPMC) - brings together the representatives of:

- *the Tribal Authority*
- *the Mogalakwena municipality*

and the provincial and local delegates and authorities.

- The *Mogalakwena municipality*, which is the structure that deals with residents, and which is responsible for the control of the water system.

Note that the Municipality is the main owner of the land in the management zone of this site, which is adjacent to the residents' living zone.

Resources:

Taung Skull Fossil Site:

After years of disinterest or abandonment, the site is now being given attention. This nomination dossier shows that substantial financial resources are being devoted to the implementation of the conservation policy. In accordance with the provisions of the 5-year development plan (*The Integrated Spatial Development Framework*), the funds come from the following programmes or organisations:

- Site Conservation Budget (*Buxton Heritage Site*)
- Tourism Programme (*Tourism Sign Boards for Taung Skull Site*)
- Museum (*Taung Skull Interpretative Museum*)
- Management Plan (*Conservation Management Plan*)

The total forecast amount is approximately 16 million rands, or some USD 2,700,000.

Makapan Valley:

An overall plan setting out the conservation and infrastructure development projects for the development of the zone (*Comprehensive Business Plan*) has been drawn up. It is monitored on an annual basis.

The following are involved in its financing:

- Limpopo Tourism and Parks Board,
- Limpopo Economic Development Enterprise,
- SAHRA
- University of the Witwatersrand
- The provincial and local authorities.

To this are added private donations and contributions from the National Lottery (e.g. the State National Lottery / Lotto very recently granted 16,600,000 rands for the conservation of the sites, equivalent to approximately USD2,800,000).

Justification by the State Party (summary)

The nomination for inscription on the World Heritage List is presented as a serial extension of the "Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai and

Enviros" inscribed on the World Heritage List in 1999. For this reason the State Party justifies its nomination by referring to criteria iii and vi on which basis the inscription was granted in 1999.

For the Taung Skull Fossil Site, it is pointed out that:

Criterion iii: The site bears exceptional testimony to some of the most important Australopithecine specimens dating back more than 3.5 million years; this throws unique light on to the origins and then the evolution of humankind, through the hominisation process.

Criterion vi: This site constitutes a vast reserve of scientific data of universal scope and considerable potential, linked to the history of the most ancient periods of humankind.

The State Party proposes the adding to these two criteria of criterion iv:

Criterion iv: The site bears exceptional testimony to a significant period in the evolutionary process of humankind.

For the Makapan Valley, the State Party bases its nomination on criteria iii and vi only.

3. EVALUATION BY ICOMOS

Actions by ICOMOS

An ICOMOS expert mission visited the sites in August 2004.

Note:

The evaluator for this mission is the same person who carried out the ICOMOS mission in January 1999 for the "Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai and Enviros".

This greatly facilitated the analysis and enabled a study of the extension conditions proposed, based on a good knowledge of the practical realities of the site and the problems.

ICOMOS also contacted the State Party to obtain additional information about the location of the sites, the boundaries of the Taung Skull Fossil Site, and the joint management of the sites and archaeological data. The State Party has provided supplementary information and agreed to extend the nominated site to include part of the Buffer Zone known as the Liquor store.

Conservation

Conservation history:

Generally speaking, the importance of fossil hominid sites is revealed by excavations, and on occasion by chance discoveries. This means that material is removed from the sites as discoveries take place, and that, in this specific field, one must make judgments based on conventional conservation terms.

a/ It should be recalled that the place in which the Taung Skull Fossil site was discovered is an open limestone quarry, and that industrial and commercial considerations at first prevented this site from being declared a paleo-anthropological site.

It should not be forgotten either that the Taung Skull Fossil Sites ensemble (nominated for inclusion on the World Heritage List) represents one of the last vestiges of the racist ideology of Apartheid and the exploitation of the work of Black people. Many of the buildings in which the black workers lived in poor conditions are still intact, and the memory of this past period still remains vivid.

Another remark should also be made: many questions concerning the long-term conservation of the sites are clearly raised in the inscription nomination dossier. These questions must now be seen as less acute, and be reconsidered, as the sites have now been proclaimed national heritage properties (May 2004), which gives them a high level of conservation protection.

b/ The essential remark concerning Makapan Valley is the fragile nature of the structures uncovered by quarry exploitation or archaeological excavations.

The monitoring carried out up to now, whose results have been mixed, will be stepped up under the provisions of the National Heritage Resources Act.

State of conservation:

It is important not to lose sight of two key facts:

- The sites which contain fossil hominids are generally fragile;
- The importance of the paleontological and archaeological sites is only revealed by excavations, i.e. by the material that is removed as discoveries are made. This means that the most significant finds, which enable advances in knowledge and make the site valuable, as the site of the find, cannot be conserved in their context.

To these facts, which are in no way specific to the sites in South Africa, may be added - as far as conservation is concerned - something which is specific to the country: the legacy of the ideology of Apartheid, which even influenced the fields of research and anthropology.

However, it should be pointed out that the relevant South African authorities - as revealed in the nomination dossier - are fully aware of the problems raised by the conservation of the sites, and that they carry out effective monitoring.

Lastly, the status of "National Heritage Site" conferred in 2002 on the Makapan Valley and in 2004 on the Taung Skull Fossil Site means that the conservation conditions should be gradually improved.

Management:

As indicated above (in the section on Management Structure), the diversity and the specialisation of the agencies involved in the management of the sites ensure that the questions, activities and aspects covered by this management are taken into account. Accordingly, with

regard to the Taung Skull Fossil Site, convinced of the necessity of setting up an integrated management agency bringing together all the organisations, administrative departments, local authorities and legal entities involved and interested, the South African authorities have committed themselves - during the field mission undertaken by ICOMOS (and particularly after the working session of 17 August 2004) - to ensuring the participation, in the management process, of all those interested at the national, regional and local levels.

The regulatory provisions for the setting up of this new management authority, and its operation, will be effective at the end of March 2005, and at all events before the 29th session of the World Heritage Committee in July 2005.

Risk analysis:

The inscription nomination dossier unhesitatingly highlights the risks facing the nominated site, and the threats faced by its components in general:

- Development pressures,
- Pressures on the integrity of the environment, because of the presence of the villagers, scattered over the protected area, and their use of wood and water, which are necessary for their everyday life but are often prejudicial to the environmental balance.
- The damage caused by insufficiently controlled or anarchical visits (particularly by tourists).

All these risks and threats are taken seriously by the authorities concerned. Their impact is currently being analysed, and corrective measures or long-term protection measures are being prepared at all levels of responsibility, with the participation of the population.

Authenticity and integrity

From the viewpoint of integrity (in this case the criteria are those which apply to natural properties), the caves, breccia and strata from which quantities of fossils or tools have been extracted are generally intact. They are no longer exploited as quarries.

Similarly - despite the presence of the scattered population and domestic animals - the landscape, taken as a whole, has a high level of integrity.

As for the fossil sites, it is hard to apply the concept of authenticity in the classical sense.

Comparative evaluation

In 1997, ICOMOS had a comparative study carried out by two eminent paleontologists of potential fossil hominid sites for inscription on the World Heritage List. The study set out six criteria for evaluating such sites:

- a good chronology,
- number of fossils,
- dating of discoveries,
- discovery potential,
- closely linked groups of sites,
- discovery and evidence of human evolution.

Like Sterkfontein Valley, inscribed on the World Heritage List in 1999, the Taung Skull Fossil Site and Makapan Valley meet all the above criteria.

Outstanding universal value

General statement:

Just as much as the fossil hominid sites of Sterkfontein, Swartkrans, Kromdraai and Environs, inscribed on the World Heritage List in 1999, Taung Skull Fossil Site and Makapan Valley contain exceptional traces, which are both physical and cultural, of the first stages of the evolution of *Hominidae*.

These deposits are of universal value from the viewpoint of science, archaeology and anthropology. In fact, they bear a testimony of the first importance covering several significant periods of human prehistory. The discovery in 1925 by Professor Dart of the fossil skull of the Taung child - a discovery confirmed by others (particularly from 1936 onwards, in 1938, and from 1948 onwards), led to the conclusion that the species represented had a definite link with the origin and evolution of humankind.

Furthermore, it is these South African fossils that in fact enabled the designation of Africa as the cradle of humankind.

Evaluation of criteria:

With regard to the Taung Skull Fossil Site, the nomination dossier refers to criteria iii, iv and vi.

It justifies the application of these criteria as follows:

- for criteria iii and vi: by pointing out that this is a proposal to extend the fossil hominid sites of Sterkfontein, Swartkrans, Kromdraai and Environs, and that the said sites have been inscribed on the basis of criteria iii and iv, and concluding that the applicability of the same criteria was a logical consequence.

- for criteria iv: by arguing that the site bears an exceptional testimony to an important stage of the evolutionary process of humankind.

As for the Makapan Valley ensemble, the nomination is however limited to criteria iii and vi.

Important note:

It seems that criteria iv should not apply because of homogeneity in the reference to criteria. If the extension is to be approved, it would be approved on the basis of the existing criteria iii and vi. How could the addition of a criterion be accepted for a mere extension, and above all for only one part of the extension (i.e. Taung Skull Fossil Site)?

It would be more logical to propose that criterion iv should be accepted for the basic sites already inscribed in 1999 and for the two extensions (not just Taung Skull Fossil Site but also Makapan Valley.

Conclusion:

As ICOMOS is suggesting that the extension should be approved, it is strongly recommended that the appropriate order is not disturbed and that homogeneity is observed: the same criteria should apply for the sites already inscribed and for the extensions.

4. ICOMOS RECOMMENDATION

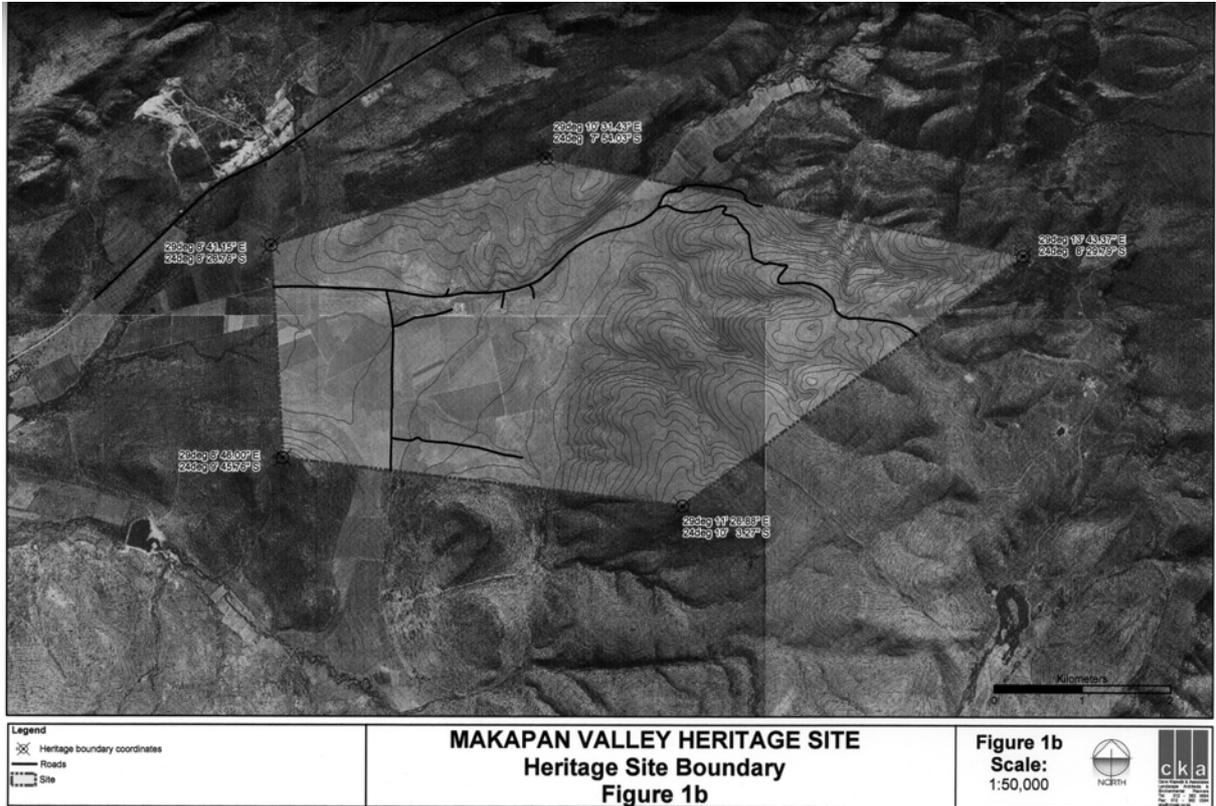
Recommendations with respect to inscription

ICOMOS recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Document WHC-05/29.COM/8B,
2. Approves the extension on the basis of the ***existing criteria iii and vi***.
3. Notes the proposal made by the State Party for the changing of the name of the property, which as extended becomes: "The Fossil Hominid-bearing Sites of South Africa".

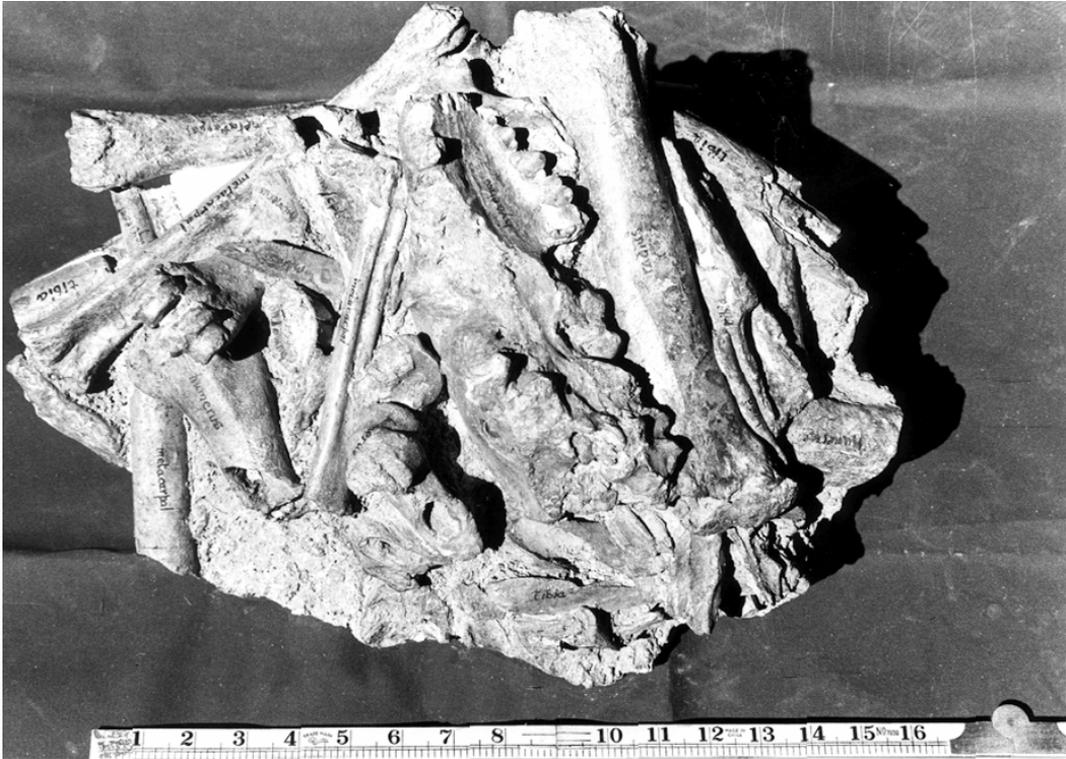
ICOMOS, April 2005



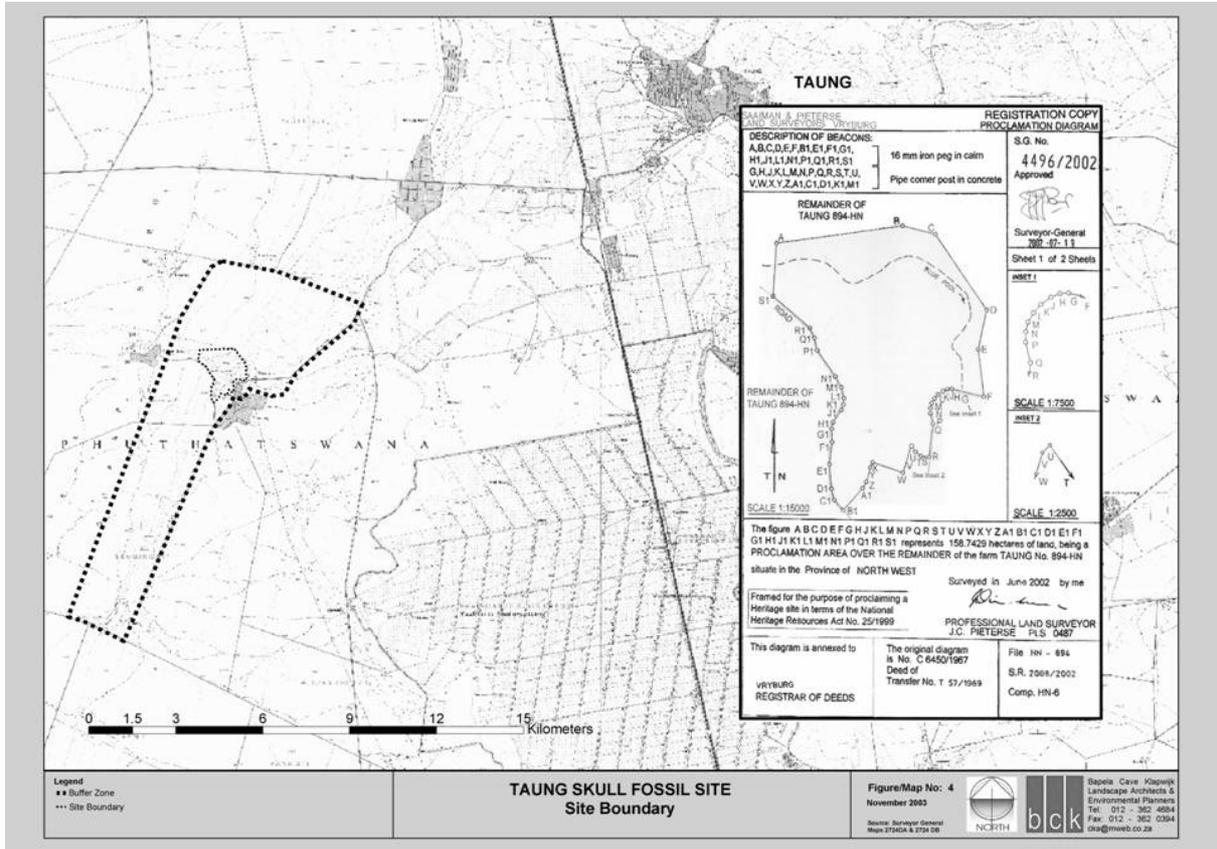
Map showing the boundaries of the Makapan Valley



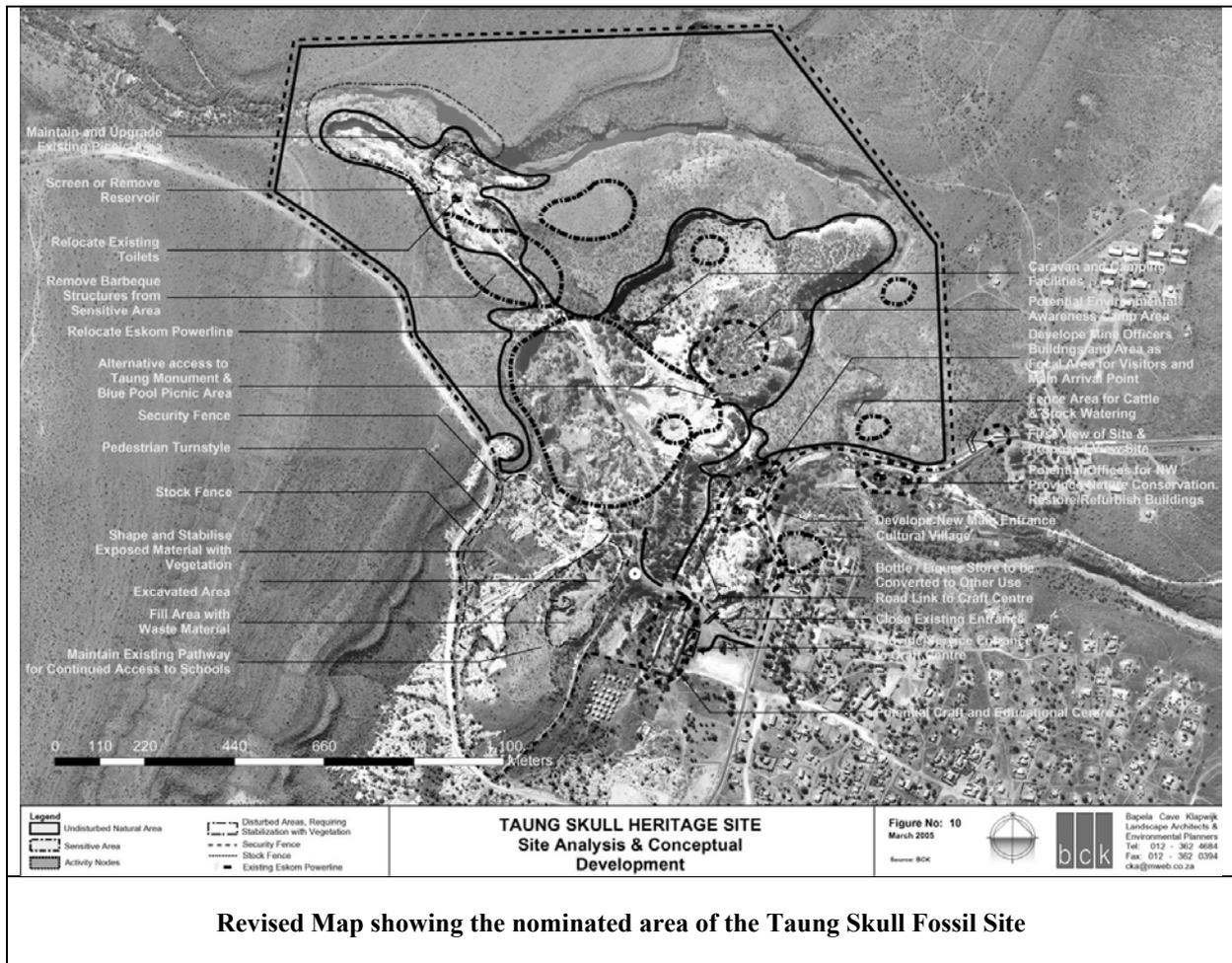
Makapansgat Limeworks interior



Block of richly fossiliferous breccia



Map showing the boundaries of the Taung Skull Fossil Site



Revised Map showing the nominated area of the Taung Skull Fossil Site



Taung Fossil Skull



Abandoned Norlim Limestone Quarry at Buxton