

MAKAPANSGAT: CAVES THROUGH AGES

LOCALITY

The Makapansgat Caves and neighbouring archaeological and fossil sites are situated on the farm Makapansgat 19km north of Potgietersrus in the Northern Province. The caves are of great importance as they provide a record of hominid occupation from australopithecine (ape-man) times through the Stone and Iron Ages, right up to the present day. As such, the Makapansgat Valley is unique in that nowhere else in the world, such an extended and complete record of hominid occupation has been observed.

HISTORY

In February 1925 Prof Raymond Dart announced the discovery of the first ape-man at Taung (Northwest Province) with these profound words: "The specimen is of importance because it exhibits an extinct race of apes intermediate between living anthropoids (apes such as chimpanzees) and man.....". A teacher from Pietersburg, Mr Wilfred Eitzman, inspired by this discovery, sent Dart some rocks containing fossils which he found near the lime kilns on the farm Makapansgat. This is how one of the most revealing chapters of the origin and evolution on Humankind was opened.

MAKAPANSGAT VALLEY SITES

MAKAPANSGAT LI MEWORKS

This is the oldest of the sites, spanning an age of between 3,32 million years to 1,6 million years ago. This site has yielded many thousands of fossil bones, amongst which were found remains of the gracile ape-man *Australopithecus africanus*.

CAVE OF HEARTHS & HYAENA CAVE

The Cave of Hearths preserves a remarkably complete record of human occupation from Early Stone Age "Acheulian" times in the oldest sediments through the Middle Stone Age, the Later Stone Age and up to the Iron Age.

Nineteenth Century European relics such as brass ware and musket balls were found at the surface when excavations started.

BUFFALO CAVE

A small number of fossils were collected by Dr Robert Broom from this site in 1937, including the remains of the extinct buffalo *Bos makapania*. More recent excavations have revealed an extensive fauna including antelope, horses, pigs, monkeys and carnivores which suggest a Pleistocene age for the deposits.

FICUS CAVE & IRON AGE SITE

The cave gets its name from the fig tree *Ficus ingens* roots which curtain its entrance. This cave contains Iron Age and 19th Century relics, a large bat colony and an underground lake. An Iron Age site close by yields occupational debris from approximately Early Iron Age (550 AD), 870 AD and the Late Iron Age (1560 AD). The slopes adjacent to the cave are artificially terraced and archaeological finds from these include potsherds, grindstones, hammer stones and relics of iron smelting operations, including ore, slag and fragments of tuyeres.

PEPPERCORNE'S CAVE

This cave contains Iron Age and ancient relics and an underground lake. It is also home to a large colony of migratory long-fingered bats, *Miniopterus schreibersii*.

RAINBOW CAVE

This cave is situated immediately below the Historic Cave and contains the remains of several hearths, indicating both human occupation and the controlled use of fire. The exposed sediments have yielded Middle Stone Age artifacts of the Pienarsburg Culture of between 100 000 and 50 000 years ago.

HISTORIC CAVE OR MAKAPANGAT

This site lies immediately adjacent to the Cave of Hearths and preserves Iron Age and Mfecane relics. It is most famous as the clash between a Boer Commando and local Langa and Kekana people after the murders of Voortrekkers at Moorddrift, Mapela and Pruizen. Chief Makapan (Mokopane), together with a large number of his tribespeople and their cattle were besieged in the cave for nearly a month between 25 October and 21 November 1854, during which time many hundreds died of hunger and thirst. Piet Potgieter was shot during the siege and the name of the nearby town was changed from Vredenburg to Pieter Potgietersrust, which in time changed to Potgietersrus. The cave was proclaimed a National Monument in 1936.

DISCOVERIES IN MAKAPANSGAT VALLEY

The rocks Prof Dart received from Mr Eitzman turned out to contain, amongst others, blackened fossil bones which led him to believe that they were burnt. Although no hominid remains or stone tools were found at first, he concluded that these were the remains of bones burnt in fireplaces and therefore that Mokapansgat was a site of early hominid occupation. Dart named the first hominids discovered at the site *Australopithecus Prometheus* after the mythological Greek hero who stole fire from the Gods. Afterwards the black markings turned out to be manganese stains and *Australopithecus Prometheus* turned out to be specimens of *Australopithecus africanus*. On the basis of an analysis of 7159 fossil bones, Dart concluded that these creatures, in an era before stone tools were discovered, used tools made from bone, teeth and horn, naming it the Osteodontokeratic Culture.

In 1936, the Historical Monuments Commission was asked to declare Makapan's Cave a National Monument and Prof C van Riet Lowe, secretary of the Commission and Director of the Archaeological Survey of the Union of South Africa, visited the site in 1937. He inspected the Historic Cave and discovered close by an abandoned limeworker's adit which cut through a calcified cave infill. In this infill he saw fossil bones, stone tools and what he took to be ash horizons, representing ancient hearths. After initially referring to it as part of Makapan's Cave, he later renamed it "The Cave of Hearths".

Further research during June and October 1937 revealed the Rainbow Cave. The site was visited by Van Riet Lowe, Dart and Robert Broom. HBS Cooke of the Geology Department of the University of the Witwatersrand conducted a geological survey of the area (1941) followed by LC King in 1951.

Philip Tobias led a group of students in July 1945 to the valley where they discovered the Hyaena Cave adjacent to Van Riet Lowe's site. Further down the valley, from a cave adjacent to the limeworks, they collected a large fossil horse's lower jaw, from which the Cave of the Horse's Mandible derived its name.

After these discoveries, Dr Bernard Price made a research grant available for systematic excavations which commenced at the Cave of Hearths in 1947, field work being carried out by Guy Gardiner, James Kitching and his brothers Ben and Scheepers. One of the most significant discoveries was a Homo lower jaw from Bed 3 by Ben. In 1953 Dr RJ Mason was placed in charge of the excavations and the stratigraphic sequence was determined during 1953-1954.

After the Kitching brothers discovered an ape-man braincase amongst the Limeworks dumps in 1947, Dart organized for the lime miner's dumps to be hand-sorted in order to recover as much fossil-bearing material as possible. After 45 years of research, many thousands of fossils from this site have been identified and catalogued.

B Maguire studied rocks which were brought from outside into the caves during prehistoric times (1965, 1968, 1980). This he interpreted to represent rudimentary stone tool making activities dated at around 2,3 – 1,6 million years ago.

TOURS TO MAKAPANSGAT VALLEY

In order to visit the caves, bookings must be made at the Arend Dieperink Museum. Groups of 15-20 persons can be accommodated per visit. Cost: R15 per adult and R10 per scholar (regrettably no children under the age of 12 are allowed to visit the caves). After the indemnity forms are completed at the museum, visitors must follow the guide to the site. Since the Bernard Price Institute of the University of the Witwatersrand is conducting research at the site, nobody may visit the caves without the supervision of one of our guides.

AREND DIEPERINK MUSEUM P O Box 34, MOKOPANE, 0600, Tel: (015) 42244) Although the Arend Dieperink Museum is mainly a cultural history museum, it also houses a palaeontological display and has an extensive collection of agricultural implements. The museum is situated in the Old Klip School in Mokopane on the N1. The school, built in 1917, was declared a National Monument on 20/10/1989.