

# FOSSIL HUNTING BY THE NATIONAL MUSEUM AND THE MAN BEHIND IT

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Collecting of and research on fossils, although greatly rewarding and satisfying, is not always easy and usually requires many, many hours of tiresome work. Firstly to find a fossil entails tremendous patience because one might wander around aimlessly for several days without even finding traces of one. However, great is the reward when at last one finds a real beauty such as was discovered by the National Museum last year. Although very little bone was exposed, experience led us to believe that it was a dinoceraptor (a large reptile which lived more than 200 million years ago). After all the excitement had died down we were ultimately confronted with more or less 3,5 metres of rock with signs of encased bone exposed at various intervals along its length. This unimposing piece of rock had to be removed from the cliff of which it formed part, with the aid of hammers, chisels and a crowbar and required sitting or lying down in the most awkward positions for several weeks chipping away at one's hidden treasure. When at last the rock was freed, it could be carried in blocks ( $\pm 0,5 \text{ m} \times 0,5 \text{ m}$ ) to the nearest roadway approximately 1 km away so that it could be transported to the laboratory.

Only now does the real work begin. Although less strenuous, it is often more tiresome as every grain of rock has to be carefully and skillfully removed from the fossilised bone with fine engraving tools, dental drills and probes taking care not to damage the bone. This process takes from four months for a small skull ( $\pm 7 \text{ cm}$  long) up to two years for larger ones. But great is the reward, when the beautiful bones of a creature which has never been seen by man until now, has been exposed. It can now be studied, and if well preserved and prepared, even the points where muscles were attached to the bones can be determined.

To do this work requires great patience and dedication, one has to live with your treasured bit of rock for several months, and in fact one has to really love it.



*Excavating a large fossil of a reptile (dinoceraptor) which lived more than 200 million years ago.*

The Palaeontology Department at the National Museum Bloemfontein is fortunate in having the services of John Nyaphuli, who has worked at the Museum for 13 years, and all this time on fossils. He loves them in all ways — he loves looking for them, he enthuses when he finds them, does not complain when he excavates them, and loves to prepare them beautifully. Over the last five years the Palaeontology Department has embarked on a research programme to find



*Rock is removed from the fossil with fine dentist drills and probes.*



*John Nyaphuli proudly holding some newly discovered fossil bones.*

fossils in rocks of the geological zone known as the Eccia Group. Previously no palaeontologists have ever been able to find fossils in these rocks. Fortune has smiled favourably on this project, notwithstanding that initially many regarded this as a wild goose chase. So far more than 50 fossils have been found, 80% of these by John Nyaphuli and still he gets excited every time he finds another.

These fossils are of tremendous scientific importance as they are the oldest remains of land-living reptiles yet found in Africa and add weight to earlier beliefs that Karoo reptiles are descended from earlier forms which lived in Russia. Unfortunately the rock encasing these fossils is extremely hard and as a result are very difficult and slow to prepare well. This does not deter John who always smiles happily and enthusiastically as he starts preparing his new fossil finds.

