## MORE ISLE OF WIGHT



Could this be the Isle of Wight's answer to the Blarney Stone?

Photograph and caption - Linda Drummond Harris

# **DIAMOND OR GRAPHITE?**

Extract from Rio Tinto Review, June 2005

To discover a diamond reserve, you need to find the signature of one of the planet's rarest, most violent volcanic events. Carbon only forms into diamonds at temperatures that are low by upper mantle standards and high pressure, and these conditions are only found hundreds of km below ground. Few diamonds ever reach the surface; as they rise, the pressure on them decreases and the crystal begins to rearrange itself into graphite. To survive as far as the surface, diamonds have to be carried upwards fast on a surge of magma. When gas-rich magma explodes upwards at nearly the speed of sound, it rips debris from every stratum it passes through, including diamond-bearing regions. At the surface the gases blast out a narrow cone-shaped hole in which the magma and debris cool and solidify creating a vaguely carrot-shaped tube of volcanic rock called a kimberlite pipe. The pipes are relatively small - a few hundred metres in diameter and very few and far between.

#### OLDEST LAND ANIMAL

Extract from an article by Bob Davidson, Earth Heritage, Issue 23, Winter 2004-05

A 428 million year-old (Silurian) fossil millipede has been found on the foreshore at Stonehaven on Scotland's NE coast. It is remarkable because it has air-breathing structures. *Pneumodesmus newmani*, marks the first emergence on to land by any animal, anywhere in the world.

#### WEB SITES

Geology Society: www.geolsoc.org.uk

Geologists' Association: www.geologist.demon.co.uk

British Geological Survey: www.bgs.ac.uk

Quaternary Research Association: gra.org.uk

The Palaeontological Association: palass.org/index.html

English Nature - each County's geology:

www.english-nature.org.uk

Geological Walks in Scotland:

www.geowalks.demon.co.uk

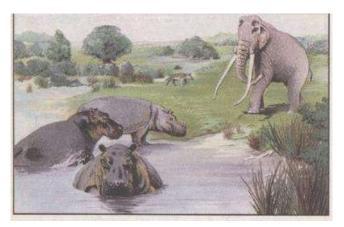
#### Cambrian Fossils of Chengjiang, China

www.fossilmuseum.net/Fossil\_Sites/Chengjiang.htm
There is also a book about these amazing Lower Cambrian fossils. 'The Cambrian Fossils of Chengjiang, China' Hou X.-G, Aldridge, R.J. Bergstrom, J. Siveter, D.J. and Feng X.-H, published by Blackwell Publishing, Oxford.

NASA: www.nasa.gov

### HIPPOS IN EAST ANGLIA!

Extract from Down to Earth, Issue no, 48



The bones of two giant hippopotamus have been unearthed near Norwich in Norfolk. They occur alongside the bones of horse, hyena, fish and a variety of rodent animals. They provide a rare glimpse of life in East Anglia some 500,000 - 780,000 years ago in an interglacial in the Middle Pleistocene. The hippos lived at a time when the Norfolk landscape was populated by a mixture of familiar plants and animals and more exotic species now found only in the African savannah. Evidence from the insect population indicates that the temperature was 2 - 3° warmer than at present.