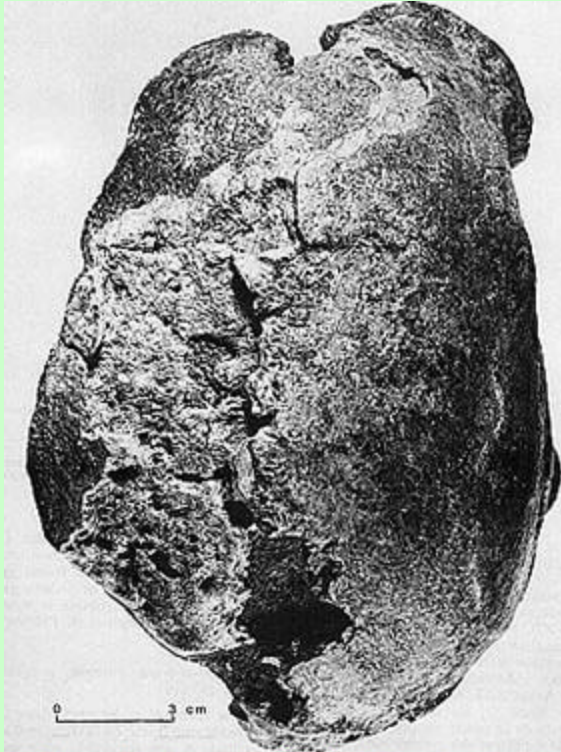




Geological Survey of India, Kolkata

## The Hathnora Skull Fossil from Madhya Pradesh, India




The Fossil Repository Unit, Curatorial Division, Central Headquarters, Geological Survey of India, Kolkata maintains a huge collection of fossils since the inception of GSI more than 150 years ago. These fossils were collected by geologists both from GSI and outside GSI. Some of these fossils are “GSI Types” in status. These are unique specimens representing the single or duplicate samples of the known species. These ‘Types’ become invaluable, particularly when they represent extinct animals and are rare in occurrence throughout the world.

The broken skull specimen of *Homo erectus*, first & only of its kind in India, discovered by Dr. Arun Sonakia, Ex-Director, Palaeontology Division, Geological Survey of India, Central Region, Nagpur is one of such rare collection. This skull was discovered on 5th December, 1982 in the middle of the Narmada valley in Hathnora, Madhya Pradesh.

Narmada *Homo Erectus* skull, Superior view



Geological Survey of India, Kolkata



This fossil carries a double interest:

- It is the most ancient human remnant so far discovered in Indian subcontinent and
- It was discovered *in situ* which allow a precise determination of its stratigraphic, palaeontological and cultural context all attributable to the Middle Pleistocene (around 500,000 years ago) age in the geological time scale.

The material is a part of the cranium which may be ascribed to a female individual at the age of thirty's. The skull was studied by Arun Sonakia in 1982 and Marie-Antoinette de Lumley in 1984<sup>1</sup> based on morphological comparisons with similar fossils discovered in Europe and Asia. The study revealed that the Narmada Man was a *Homo erectus* i.e. archaic man. At that time, it was impossible to do CT scan. Now, with the help of Geological Survey of India, Prof. Henry de Lumley, Marie de Lumley, Amilie Vialet from the Institute of Human Palaeontology, Paris are working upon a project based on serial CT scan data of the skull. The CT scan was arranged by the Geological Survey of India at AMRI, Kolkata. This advanced study with CT scan at around 1 mm interval along 3 different orientations will enable generation of 3-D images from which inferences could be drawn on internal structures of the skull. Besides, reconstruction of the entire skull will be made, from which the relative position of the Narmada man of Hathnora in the Human Evolutionary trend could be more precisely understood.

**Narmada Homo Erectus skull, Basilar view**

<sup>1</sup>Marie-Antoinette de Lumley et Arun Sonakia (1985) Premiere Decouverte D'un Homo Erectus Sur Le Continent Indien A Hathnora, Dans La Moyenne Vallee De La Narmada, *L'Anthropologie (Paris) Tome 89 n° 1*, pp. 13-61