

## METEORITIC SHOWER IN ORISSA

In recent years, no other natural phenomenon has evoked as much public enthusiasm on such a scale in Orissa except the supercyclone of 1999. The Meteoritic shower which occurred in Orissa on 27th September, 2003 at 6.30 pm was witnessed throughout its coastal tract and for about 50 seconds it mesmerized the common man. What appeared as a bright incandescence in the evening sky grew in to a fireball splitting intermittently in its aerial flight. In its NNW-SSE visible flight, its burning flares ignited a thatched house at Surusuria village (21°29'50":86°31'25"), Mayurbanj district before its final fragmentation about 120 km away over Suniti village in Kendrapada district, just 500 m away from the Bay of Bengal. Geological Survey of India, Operation Orissa swung into action as the news of meteoritic impact came pouring. With the keen interest of Dr. M.K. Mukhopadhyay, Director-in-charge, Eastern Region and Shri B.K. Mohanty, Director (TC), Operation Orissa, a scientific team comprising Dr. M. Mohanty and K.C. Sahoo, S.K. Jena and P.C. Dash visited the impact sites, collected soil and ejecta samples and retrieved the meteoritic remnants.

Unaware of the Government of India order about the GSI as the sole custodian of the meteorites falling within the country's territory, several research organizations and museums staked claim over the remnants, which were temporarily preserved at the Collector's Office at Kendrapada. After a fortnight of controversies the meteoritic remnants were handed over to the Director (TC), Operation Orissa by the Collector, Kendrapada on 20th October, 2003 in pursuance of a government of Orissa directive.

Because of the wide media coverage, the intelligentsia and the student community alike were enthused to have a glimpse of these extra-terrestrial bodies. Even His Excellency M.M. Rajendran, Governor of Orissa had invited the GSI scientists headed by Shri B.K. Das, Director-in-Charge, Operation Orissa to personally examine the meteorites in his official chamber. A three-day long exhibition on "Meteorite Fall in Orissa" was organized at GSI Office, Bhubaneswar and was visited by nearly thirty thousand students and public. This exhibition was inaugurated by Prof. A.K. Paul of Utkal University and chaired by Shri B.K. Mohanty, Director, GSI. Map showing the visible flight path, photographs of the meteorites and their impact craters as well as the meteorites viz. (i) very fine subrounded grains collected from the ash of the burnt

house at Surusuria village, (ii) polyhedral meteorite weighing 718 g from Subarnapur (20°32'22":86°42'00"), Kendrapada district (Fig.1), (iii) polygonal fragment of meteorite weighing 500 g from East Suniti (86°43'15":20°27'30"), Kendrapada district and (iv) subspherical meteorite from West Suniti (86°42'10":20°27'45"), Kendrapada district



Fig.1. Subarnapur Meteorite.

weighing about 5.7 kg were displayed. The powerpoint presentation on meteorites and meteoritic shower in Orissa was one of the major attractions among the students and public. Preliminary study of these fragments having a dark grey colour thin fusion crust, grooves and regmaglypts, showing strong magnetism and containing chondrules suggests them to be of chondritic variety.

These retrieved meteorites were ultimately handed over to the Director General, Geological Survey of India by a team comprising S/Shri Dr. M.K. Mukhopadhyay, B.K. Das, B.K. Mohanty, S.K. Jena and Dr. M. Mohanty on 27th October, 2003 for further research and archival at the Meteorite Gallery in the National Museum, Kolkata after due registration.

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