were geologists, particularly R. Bruce Foote, who, over 50 years ago, found palæolithic implements in Peninsular India so far north as Gujarat. One of the problems stated by Bruce Foote concerns the age of the palæolithic culture in the Sarbarmati valley and the gap or distance in time between that and the neolithic or later stone age culture. This has now been investigated by the Gujarat Prehistoric Expedition organized by the Archæo-

logical Survey.

The area chosen for this year's work is the Baroda State and parts of the Sarbarmati valley which lies in the Vijapur Taluka and of the Narmada valley in the Sankheda region have already been surveyed. On the Sarbarmati the examination of the river bed for a length of nearly 25 miles has yielded hundreds of specimens of quartzite implements, mostly found embedded in the pebble conglomerate formation. The age of these deposits is indicated by the fact that nearly 80 feet of alluvial deposits and blown loess overlies the original river bed forming the habitat of early stone age man. This roughly indicates the age as some 50,000 years. Besides these early stone

age finds, a number of microliths or tiny stone implements left by man have been recovered from the top strata of the loess hills. In the valley of the Narmada and its tributary the Orsang besides microlithic finds, palæoliths have also been discovered for the first time.

Thanks to the ample facilities afforded by Sir V. T. Krishamachari, the Dewan of Baroda, it was possible for the Archæological Department to extend this expedition to Baroda State. Two scholars especially trained in **pre**history have been engaged by the Department. and the Deccan College Post-Graduate and Research Institute, Poona, lent the services of its Professor of Ancient Indian History. The Baroda Archæological Department, the Gujarat Sahitya Sabha and the Gujarat Research Society have also co-operated. The results obtained so far have considerably advanced the scientific knowledge of early man in India, and it is hoped that if this enterprise is continued on a systematic basis the story of India's earliest inhabitants would be better known and a chapter of human endeavour in its earliest form unearthed from the fruitful banks of India's rivers.

## CENTENARIES

## Shrapnel, Henry (1761-1842)

HENRY SHRAPNEL, the inventor of the shell bearing his name, was born at Bradford-on-Avon 3 June, 1761. He received a commission as second lieutenant in the royal artillery in 1779. He saw service in Newfoundland, Gibraltar and West Indies. He became first assistant inspector of artillery in 1804, colonel in 1813 and major-general in 1819 and retired in 1825.

Between 1784 and 1804 he made many experiments at his own expense on hollow spherical projectiles filled with bullets. By 1803 his shell was adopted for service. This destructive shell has now come into universal use. In 1808 the Duke of Wellington testified to its remarkable value and recommended that the invention should not be made public but that Shrapnel should be given a suitable reward as compensation for being deprived of fame and honour by such a secrecy. He further said, in regard to the praise that should go to Shrapnel, "You may say anything you please, you cannot say too much". Sir George Wood who commanded the artillery brigade at Waterloo wrote in 1815 that had it not been for Shrapnel's shells, the battle of Waterloo could not have been won.

The Board of Ordnance did not, however,

uphold the request of Shrapnel to be compensated for the expenditure he had incurred in the invention. In 1837 when Shrapnel was the guest of William IV, the king personally acknowledged his high sense of his services and was agreeable to confer a baronetcy on him. But the death of Shrapnel's son shortly thereafter led to the dropping of the proposal. Shrapnel himself died a disappointed man, at Southampton 13 March, 1842.

## Courten, William (1642-1702)

WILLIAM COURTEN, a British naturalist, was born in London 28 March, 1642. While in his travels to Montpelier, he came across Sloane and this led to his interest in botany. After a good deal of foreign travel, he opened in 1684 his botanical museum in the Temple. It was estimated to cost 50,000 guineas. This went over to Sloane and ultimately became the nucleus of the famous Sloane collection of the British Museum.

Courten's name was immortalised by Robert Brown who founded the genus Courtenia upon

a plant from Java.

Courten died at Kensington 29 March, 1702.

S. R. RANGANATHAN

University Library, Madras.