

Celebrating 150 years of Prehistoric Research in India: Perspectives from Northeast India*

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It was 30th May, 1863 that Robert Bruce Foote (1834-1912), a British geologist of the Geological Survey of India (GSI) made an important discovery pertaining to the story of human evolution and the presence of early humans in India. It was a handaxe made of quartzite stone recovered from the debris of a pit dug in the lateritic gravel in a place called Pallavaram near Chennai which provided evidence of the relics of early culture of our ancestors for the first time. This discovery laid the foundation of prehistoric research in India for which Foote is known today as the 'Father of Indian Prehistory'. During his service period, he discovered a total of 459 archaeological sites belonging to Palaeolithic, Neolithic and Iron Age cultures of India which have been well documented in his book *The Foote Collection of Indian Prehistoric and Proto-historic Antiquities*. To commemorate the 150th anniversary of this important event, universities and research institutes throughout the country have organised seminars and workshops.

After four months of the first discovery, Foote and his colleague William King discovered comparable tools from a nearby locality called Attirampakkam in the Kortallayar River basin. These types of stone tools which form part of the Stone Age Acheulean culture (a prehistoric culture which existed during a time period approx. between 1.7 million years (17 lakhs) to 250,000 years before present (BP) in Africa, Asia and Europe) were probably used by our ancestors for cutting and butchering meats and digging roots and tubers from the ground as hunting and gathering was their basic subsistence economy. Metal and agriculture was not known to them as these were later innovations/inventions. The site of Attirampakkam has been excavated since 1999 by a group of archaeologists led by Dr. Shanti Pappu of the Sharma Centre for Heritage Education, Chennai and currently a Professor of Prehistory at Deccan College, Post-Graduate and Research Institute, Pune. In a recent paper published in the reputed journal *Science*, the team has reported a date of 1.5 million years (15 lakhs) for the archaeological layer bearing Acheulean cultural material by using a relatively new dating method of cosmic-ray exposure in which the time elapsed since the burial of quartzite artefacts is estimated. The recent dates from Attirampakkam have surpassed the date of 1.2 million years (12 lakhs) for Acheulean in India that was obtained at the site of Isampur in Karnataka a decade earlier by Prof. K. Paddayya, Former Director of Deccan College and his team. Thus these dates have established an equivalent chronology of the Acheulean cultural phase in India with other areas of the Old World, particularly Africa and West Asia. Sites studied in western Maharashtra by Prof. Sheila Mishra of Deccan College and her colleagues also indicate great antiquity of early humans in India. The recent research has clearly demonstrated that the human colonisation in India encompasses a span of at least one and half million years.

In case of Northeast India, in the year 1867, Sir John Lubbock reported a blue jadeite Neolithic stone artefact from Assam for the first time in a note published in *Athenaeum* of London. Subsequently, several British administrators and Indian scholars started collecting Stone Age artefacts from different parts of the region in the pre-independence era. Later on, with the initiatives of Prof. M.C. Goswami and Prof. T.C. Sharma of Gauhati University, Northeast India was securely plotted on the prehistoric map of South Asia. As Northeast India is located at the crossroads of human movement from Africa, the cradle of mankind, to the Far East through different parts of mainland India which have yielded evidence of early human presence since the late

Pliocene/early Pleistocene geological period, there is ample scope for searching early human presence in this region. Garo hills of Meghalaya have provided the largest concentrations of prehistoric sites in this part of India.

During the last 150 years of Indian prehistory, systematic search for human presence has established a continuous cultural development in South Asia starting from the Stone Age through different stages of metal ages till the historic period in India. The term history implies the past events in a broader sense but anthropologically and archaeologically, it is confined to the timeframe having written records of the past events. The written records can tell us only a smaller part of our cultural development which does not go beyond the time limit of 5,000 years. So, in archaeological literature, the term prehistory is referred to define the time period without any written record or prior to the advent of writing systems. So, pre-history is the pre-literate stage which covers more than 99% of the total evolutionary history of mankind. Scientific enquiry to the darkness of prehistory has unfolded several crucial stages of cultural development.

The word 'prehistory' was introduced by archaeologist Daniel Wilson in his book *The Prehistory of Scotland* in 1865. Prehistoric archaeology may be defined as the science which yields information and develops theories about past human activity of the time period before the emergence of written record by means of studying ancient material remains. Numerous branches of sciences like geology, palaeontology, geography, physics, chemistry, oceanography, remote sensing, geographical information system, microbiology, metallurgy, computer science and other newly emerging disciplines contribute enormously to reconstruct the human past most effectively and authentically.

One may wonder how to go beyond the time of the early ancestors who first started making stone artefacts. It is the fossil record of the past populations which are being found in different context either buried or deposited in the earth surface. Palaeoanthropologists have been collecting the fossil findings and analysing them to get information regarding the physical features of our ancestors. The fossil records are the most authenticate evidence for us to know and reconstruct the skeletal changes occurred during the evolutionary process. In this gradual process of evolution, man left various kinds of unwritten records in the form of artefacts made out of stone, bone, tree branches and metal tools, vessels, food debris etc. from which we can reconstruct the past human cultural evolution. Compared to the vast repertoire of these cultural remains, direct remains of the human being in form of fossils are extremely rare in India. The most well known fossil evidence from India is of an early hominid discovered at Hathnora of Narmada River in Madhya Pradesh by Arun Sonakia of Geological Survey of India in 1982 which is comprised of a partial cranium of archaic *Homo sapiens* or *Homo erectus* popularly known as 'Narmada Man'. From the same locality at Hathnora and the nearby Netankheri Dr. Anek Ram Sankhyan of the Anthropological Survey of India (presently President of Palaeo Research Society) has discovered two archaic human clavicles, a partial 9th rib and one femur bone, and one early modern human humerus, all ranging from about three to one lakh years ago. Dr. Sankhyan recently advocated a theory of existence two types of early hominins in Narmada valley; holds true for entire South as well. One was a short and stocky type; he named it *Homo narmadensis*, which possibly evolved to the later pygmy lineage of the Andaman Islands and other short-bodied people. The other represented by the femur and the skull cap was a robust large-bodied Acheulian archaic hominin resembling European *Homo heidelbergensis*, which likely became extinct during Middle Palaeolithic time of South Asia.

Man, the excellent product of nature has some unique features. The bipedal locomotion, walking on two legs keeps both the hand free allowing using in any other function. This advantage and his large brain size separate him from the other animals in terms of cultural behaviour. During some point of time, man acquired the art of making artefacts from stone for the first time due to the dexterity of the limbs. The first making of the stone tool at 2.6 million years ago (26 lakhs) discovered from a site called Gona in Afar region of Ethiopia can be taken as the beginning of human culture. This was the most crucial period of the evolutionary history of mankind which indicates development of complex mental capacity which is not present in other animals. In due course of time, man acquired control over fire (at 450,000 years before present so far discovered), art of making pottery (at approx. 20,000 years BP so far discovered), emergence of sedentary life and control over the different plants and animals, that is origins of agriculture and farming (at approx. 10,000 years BP), and beginning of writing systems and emergence of cities and towns (at approx. 5,000 years BP).

With regard to the origin of Neolithic period, recent researches at the sites of Lahuradeva, Jhusi and Hetapatti in mid-Ganga plain and Koldihwa and Tokwa in the Vindhyan region have taken the origin of agriculture and pottery making tradition back to the 6th-5th millennium BCE. These sites have drawn considerable attention because of their comparability with the chronological sequence of the north-western part of the subcontinent as well as West and East Asia. The contribution of sites like Mehrgarh in Pakistan in order to understand the transition from pre-pottery Neolithic to early Harappan is noteworthy. The radiocarbon dates obtained from this site have provided an overall picture of the developmental stages of a civilisation from Neolithic through Chalcolithic till the Harappan culture. Recent investigations at the site of Bhirrana in Haryana have also provided with several radiometric dates pushing back the antiquity of the beginning of Harappan culture to the 8th-7th millennium BCE.

Neolithic sites are comparatively more abundant in Northeast India. The term Neolithic was coined by Sir John Lubbock in 1865 in his book *Prehistoric Times* to denote an Age in which the stone implements were more varied and skilfully made and often polished. V. Gordon Childe defined the Neolithic-Chalcolithic culture as a self-sufficient food producing economy. M.C. Burkitt further outlined some characteristic features for the Neolithic culture such as the practice of agriculture, domestication of animals in terms of economic life and grinding and polishing of stone tools, and also manufacture of pottery in terms of technology. The Neolithic or New Stone Age denotes to a stage of human culture following the Palaeolithic and Mesolithic periods and is characterized by the use of polished stone implements, development of permanent dwellings, cultural advances such as pottery making, domestication of animals and plants, the cultivation of grain and fruit trees, and weaving. The change in the economic mode and life style from hunting/gathering/foraging to primitive farming appeared so abruptly that this overall change in human life is often referred to as the "Neolithic Revolution". Over a period of time, the later Neolithic periods with the discovery of smelting and the making of copper tools have been identified as Chalcolithic period and then, cultures with bronze artefacts have been given the name or coined as Bronze Age. These civilisationally developing periods with invention of different metals alongside agriculture and farming activities led to the emergence of complex societies. All of these complex societies emerged in the fertile valleys of different rivers located in different parts of the globe. Some of these early groups settled in the fertile river valleys of the Nile, Tigris-Euphrates, Yellow, and Indus. These settlements with surplus agricultural product and trade subsequently resulted in the rise of the great civilizations in Egypt, Mesopotamia, China, and India.

Keeping in view the recent developments of prehistoric research in different parts of India, one may argue that the Northeastern part of India is also an important region for investigating the origin of agriculture, particularly based on rice farming, a long prevailing view among botanists and geographers. More scientific enquiries are essentially required in the near future to establish the role played by this region during the prehistoric cultural phase. The universities and research institutes located in this region and the Archaeological Survey of India (ASI) as well as state archaeology departments can take a leading role in this regard. With collective efforts, it is possible to unearth the hidden stories lying buried from the depths of the enigmatic sands of the past. It is high time to use the spade, the chief tool of an archaeologist to uncover the prehistoric past of the region.

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