Perspectives in Indian Archaeology with reference to North East India

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I

Archaeology begins with the first preserved evidence of cultural activities a little more than two million years ago, in the Rift Valley of East Africa. And it sets its mark in India with the discovery of a Lower Palaeolithic tool from Pallavaram near Madras in 1863. Since then a series of archaeological sites over the entire georgraphic space of the Indian subcontinent charts the course of human progress, the progress beginning with tool-making and other activities and culminating to the setting up of the world's largest ancient civilisation, the Harappa. Although the large number of archaeological finds in Africa and also in Europe puts an emphasis on this area, India is probably equally important in the early stages of cultural evolution.

Throughout the Old Stone Age (99 per cent of the length of the archaeological record), hunting and gathering was the only way of life. Settlements were usually filmsy camps which left still flimsier traces. By looking at the camps of modern hunters and gatherers, archaeologists can learn how best to investigate and interpret the evidence of the past. But, indeed, once stone tools appear, they act as indelible markers which immediately guide archaeologists to the scenes of human occupation.

Archaeologists work with the material cultural traces left by human activities. Thus the discipline, archaeology, concerns with the recovery of material culture, systematic description and the study of recovered materials of the past; archaeologists are the persons responsible for the archaeological studies. It needs to be emphasised here that archaeological studies and archaeologists operate usually in those areas and periods which lack a contemporary written account of themselves.

In essence, archaeology attempts to reconstruct the patterns of the past ways of life and also to trace their growth and development. But how the pattern which we call culture first arose? It

was owing to the needs of hunting and gathering adaptations that were just crucial to the evolution of cultures. Hunting and gathering, which our nearest relatives - the apes - never needed to achieve, was practised by the humans for two million years before the emergence of agriculture and urbanisation.

Archaeology is a scientific discipline. Because it has developed its own methodology and techniques with which to accomplish the objectives. It has fruitfully generated a specialised body of concepts by means of which the archaeologists can tackle the evidence objectively and precisely. Furthermore, over the past decades, it has developed its own technical language too.

II

Since I am addressing from the forum of History Association it would be in order to say a few words relating to the history of prehistoric archaeology. It was Michael Mercati (1541-1573), a superintendent of the Vatican Botanical Gardens, and also a naturalist, who may be recognised as the father of prehistoric archaeology. Although he cannot, at any rate, be branded as a "prehistoric archaeologist", his work is among the first to contain the elements from which the discipline later developed. Perhaps he was the first to attend systematically to the problems of ancient stone artefacts and their origins. Together with Ulysses Aldrovandi (1522-1601), he propounded the model of the "three ages" in succession, namely the stone, bronze, and the iron. This proposition was based upon Mercati's interpretation of the artefacts, which depended primarily upon (i) field observations, (ii) ancient traditions, and (iii) contemporary ethnology. These were the foundations of Mercati's interpretation, and remain, in altered from the foundations of modern archaeology. Later Jauannet (1765-1845), and Boucher de Perthes (1788-1868) developed further these ideas and their practical stratigraphic implications.

On the basis of the "three ages" model and its stratigraphic verification, artefact assemblages revealed the key to cultural identity, exposed the sequential patterning of typological development and tacitly implied the cultural significance of technological and cultural development. Thus, the three ages scheme represents the development of the essential basis of modern analytical archaeology in the global context (See Dutta and Debi, 1987).

This is what can be told in a nutshell on the genesis of archaeology. But since the past decade-and-a-half, the basic research methodology in archaeology has adopted a change. From a purely

archaeological method there has been a gradual shift towards the application of "conjunctive" approach with purposive research designs and specific models. This is rather a multi-disciplinary approach which helps synthesizing the knowledge and information generated from other disciplines, namely physics, geology and geomorphology, palaeontology, palaeobotany, particularly palynology, palaeoecology and anthropology. When the archaeological data are organised and articulated with the data obtained from other disciplines, inferences on man, environment, chronology, time, space, technology, economy, culture, flora, fauna, nd perhaps society can logistically be drawn upon.

III

Robert Bruce Foote (1834-1912), a geologist by profession, can be recognised as the father of Indian prehistoric archaeology, since he extensively recorded, for the first time, the nature and geographical distribution of stone artefacts in the subcontinent (Foote, 1866). Since then, and following more or less the European model with alteration to understand the Indian context, archaeological research in India continued steadily concentrating on the study of tool typology, technology and stratigraphy. Notable in this context was the earliest endeavour of Panchanan Mitra (1923), who attempted to evaluate India's status in the matrix of world culture. This phase of archaeological research lasted for about a century since the first discovery of a Lower Palaeolithic tool in 1863.

The most important of all was, indeed, the first serious attempt of a systematic survey in order to identify the sequence and correlation of the stone age cultures. This was done by a team of the Yale-Cambridge Expedition in 1935, led by De Terra, in the Sohan Valley in North Punjab, and in the valley of Kashmir (De Terra and Paterson, 1939). Archaeological researches were then mainly concerned with building up of sequences and chronology.

This is evident from the studies presented as the sectional presidential addresses of the Indian Science Congress Association during the period that ended in 1960s. These studies concerned with the lower palaeolithic culture complex in India (Sen, 1954), neolithic pattern of India (Krishnaswamy, 1959), megalithic structure of South India (Aiyappan, 1945), methods of dating (Bose, 1949), prehistoric Deccan (Krishna, 1942), in particular, and with the scope (Dikshit, 1940), status (Vats, 1953) and planning of archaeological research in India (Wheeler, 1946), in general.

The archaeological data generated over the years helped in the founding of a more general plinth of a broader chrono-cultural reality of prehistoric cultures in India and by that India's rich cultural heritage was evidently brought to relief. The cultural heritage depicted the nature and content of "material culture" of earlier populations and/or preliterate societies of India. The earlier studies had never been persuaded purposively in reconstructing the "way of life", or the whole culture, of prehistoric communities in relation to their local, immediate environments. Thus the earlier pioneering studies, over-descriptive in nature and dealing mostly with tool typology, fail to achieve the goal of a total archaeology (See Dutta and Debi, 1985).

But since 1961, the year when the radiocarbon laboratory was set up at the Tata Institute of Fundamental Research in Bombay, Indian archaeology has certainly stepped into a new phase in its history. This phase, which is still continuing, has adopted a changing approach by taking recourse to the knowledge and benefit of inter-disciplinary fields for understanding the past cultures and human progress, although the basic "three ages" model remained unaltered.

It considers many and varied categories of evidence at a time for optimising the framework of reconstructing past cultures in their total sense. Not only the artefacts or their assemblages, which are indeed most important, are being studied, but at the same time more attention is paid to cull the shifting information available from the remains of animals, plants, deposits, topography and such other relevant inputs and/or materials forming the entire matrix of an archaeological site along with the artefacts themselves.

The most notable indeed is the employment of the knowledge of physics for radiocarbon dating. By now we have a good mass of data on radiocarbon calibrations which have charted archaeological sites in the time-table of chronology in terms of absolute dates. Also the pollen analysis is helping a lot in constructing a chronology of archaeological events in terms of absolute dates.

Thus the basic research methodology has adopted a clear change. From a purely archaeological method there has been a gradual shift towards the application of conjunctive approach. Also in a few studies (especially by anthropologists) purposive research designs and specific models have been adopted to accomplish a deeper understanding of the prehistoric past, especially relating to demography, food habit, technology, economy, and settlement patterns. These studies have viewed the culture change among the prehistoric com-

munities in terms of dynamic process, rather than putting the artefacts, or the material culture, into mere slots of sequences.

Though the changing approaches have not reached yet the level of sophistication compared to the global standard and overall pattern of cultural evolutionary development, yet the gradual achievements of man in many parts of prehistoric India have come up into a sharper focus.

Compared to the remarkable achievements of archaeological research in different parts of the country, as noted earlier, the current state of research for tracing the course of human progress in North East India is still in its infancy and much less impressive one, to be moderate. This is primarily due to the fact that this region of the country, which is rather geographically isolated, has not received attention of the practitioners of prehistoric archaeology, as it merits. Whatever research has been done to unravel the prehistoric past of North East India, the credit goes to M. C. Goswami and T. C. Sharma of the Guwahati University (Goswami and Sharma, 1981).

North East India (Long. 89.49. – 97.4. E. and Lat. 22.0. – 29.18' N). is constituted by the land of seven sisters ; Assam, Arunadhal Pradesh, Meghalaya Mizoram, Manipur, Nagaland, and Tripura. Its area is bounded by the Eastern Himalayas, Bhutan and China in the north, Bangladesh in the west and south, and Burma in the east. This is an area of high rainfall (200–400 cm), with closely-compact forest. Geologically, the peninsular Archaean granites contnue, with the outcrop of dolerite dykes, through the Shillong Plateau, comprising the Garo and the Khasi-Jaintia Hills, to the eastern most outcrop in Mikir and the Rengma Hills. The extant surficial topography of this region owes its origin to the plate movement which lifted the mighty Himalayas from the ocean floor.

Archaeologically, this region is indeed significant. Because it lies at the tri-junction of the Indo-Chinese, Indo-Malayan and the Indian subregions. Despite the high rainfall, dense tropical forest and peculiar topography, which would otherwise appear inhospitable for human habitation and activity, North-East India was evidently colonised by the enterprising early humans. This fact was first brought to the notice through a publication of a note on a collection of three stone artefacts collected from Joypore in Upper Assam by Sir John Lubbock in the *Atheneaum*, London (1867, 22 June). That the region is archaeologically important has not escaped the attention of scholars, recently. The Indo-Pacific Prehistoric Congress, held at Pune in December 1978, adopted

a resolution recommending the desirability of an intensified archaeological research programme in NorthEast India to realise the potentiality of the area.

The history of archaeological activities in NorthEast India is young. Systematic investigation into the prehistoric archaeology has only begun here since 1960-61. It was initiated by the members of the Anthropology Department of Guwahati University, who did explorations in the Longthing and Mahur River Valleys of North Cachar Hills. This resulted in the discovery of a stratified neolithic site at a place called Daojali Hading on the ridges of a low tertiary hill in the Longthing-Mupa reserve forest. Since then this department has carried on archaeological investigations in the river valleys of Gonal, Rongram and Simsang of the Garo Hills Its efforts has been rewarded ; and it could bring to light the existence of all the phases of Stone Age Cultures together with the discovery of a large number of archaeological sites.

The Department of Anthropology of the Dibrugarh University has also carried out excavations at a neolithic site at Sarutaru, located at the South-eastern corner of Kamrup District in Assam, during the late 1960s. During the same time period, the prehistory Branch of the Archaeological Survey of India explored the Dephabhum area of Lohit District and discovered, for the first time, the stone tools of palaeolithic tradition (Bopardikar, 1972). The state Archaeology Department of Manipur also conducted explorations in different parts of the State, which resulted in the discovery of a number of limestone caves near Ukhrul, close to Burmese border. The excavations at a cave there (No 3) have yielded both stone and bone tools (Singh, 1972). A team of the Geological Survey of India has recently discovered in Tripura the Stone Age industries based on the utilisation of fossil wood as raw material. The use of raw material reminds us the Anythian Culture of Burma. A team from the Deccan College Post-graduate and Research Institute of Pune has recently made a systematic study of geomorphology of the Gonal-Rongram and Simsang River Valleys of the Garo Hills. (Rajguru, 1981).

Large parts of these eastern states have not been covered, and Mizoram has yet to open its account on archaeological research. The fact that comes out is that the archaeological activity in North East India is rather marginal. And, again, there is scrapy information about the Pleistocene geological context in this region. It is marginally known that the Pleistocence glacial actions are noticed on the higher altitudes, generally above 6,000 ft. height, such as the

Shillong Peak, Japvo Peak and the Barail ranges, where large morains occurred. Only recently studies on the Quaternary geology have been intiated by a team of the Deccan College, Pune. The team has identified the pleistocene sedimentation cycles at the Gonal and Simsang River Valleys in the Garo Hills. A large number of Stone Age sites occur on the terraces of these valleys.

The number of archaeological sites discovered so far or the research done thereto is not adequate for drawing any valid conclusion regarding the prehistoric past of North-East India. But, even then, it cannot perhaps be denied that whatever limited information has been generated over the last decade it could broadly portray a scheme of human cultural activities and progress in this part of the country. The archaeological evidence does provide a prehistoric cultural sequence in North-East India. It begins with the Lower Palaeolithic culture which envolved to the Middle Palaeolithic which, in turn, was succeeded by the Upper Palaeolithic culture. During the post-Pleistocene, at the beginning of the Holocene epoch, there was a link of the Hoabinhian Mesolithic cultural phase in the chain This was succeeded by an Early phase of Neolithic culture which, in course of time, developed into a full-fledged Late Neolithic cultural tradition. The archaeological evidence of the Copper-Bronze and the Iron Age cultures is not available todate, however.

Prof. H. D. Sankalia proposes the cultural sequence of North East India, as follows :

New Stone age (B)	c. 2,000-1,000 BC.
New Stone Age (A)	c. 5,000-2,000 BC
Mesolithic	c. 10,000-5,000 BC
Late Palaeolithic	c. 20,000-10,000 BC
Middle Palaeolithic	c. 50,000-20,000 BC
Early Palaeolithic	c. 2,00,000-50,000 BC

It may be noted, contextually, that Dutta (1988) has proposed earlier that early man appeared in North-East India during a climate phase of the middle sequence of the Middle Pleistocene epoch, between 400,000 and 300,000 years ago or a little belated. A point of caution. The proposition would hold good, provided the evidence, correlating the palaeoliths with the Quaternary deposits of discovery, stands valid.

V

The perspectives in Indian archaeology and the state of archaeological research in North-East India have thus been outlined, in

brief. What comes uppermost in mind is that the archaeological investigations, so far accomplished, have not been persuaded purposively in reconstructing the patterns of the past way of life of the prehistoric communities in this part of the country. The studies are in fact over-descriptive, dealing mostly with tool typology ; but there should not be any regrets for that since that is also essential. What is regretted most is that the practitioners of prehistoric archaeology from other parts of the country have not paid attention to this region which is archaeologically potential. And a larger area in this region remains yet to be covered. It is mostly through the sustaining endeavour of the Anthropology Department of the Guwahati University that the prehistoric cultural sequence in North-East India has been brought to lime light.

The first series of radiometric determinations is only available from Tripura. The stratified deposits of potsherds in the Holocene sediments at Khas Kalyanpur, Seratoli and Kolagar in the Khowai and Haora Valleys have been dated in sequence ranging from 3450+150 to 1190+90 B. P. Apart from this, none of the prehistoric sites have perhaps been subjected to the test of absolute dating. With the development of various chronometric dating methods, archaeological sites of this region need to be calibrated, if possible. Also there is an immediate task to take recourse to the multi-disciplinary approach with purposive research design for optimising the frame of reconstruction of the past cultural patterns.

Although reconstruction of past cultures is the objective of archaeologists, but they are to initiate themselves to identify the evidence from archaeological meterial and to ask "why cultural patterns did change in the past". This problem may be sorted out by negotiation with the promising field of "ethno-archaeology" (see Dutta, 1978).

And, lastly, the archaeological sites or finds need rescue from any loss or damage. This is necessary for their checking and cross-checking and/or for their futher investigations by the future researchers. Therefore, programmes need to be drawn up keeping in view this "rescue archaeology".

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