Chapter – 1

Introduction

TIATOSHI JAMIR AND MANJIL HAZARIKA

The choice of title for the current volume is befitting in two ways–firstly because it was at Daojali-Hading that the first pioneering archaeological excavation was initiated in Northeast India by M.C. Goswami and T.C. Sharma (Tarun Chandra Sharma) from 1961 to 1963. This excavation was possible as a result of systematic exploration that began a half century ago in 1960-61, with the help and guidance of H.D. Sankalia, in the Langting and Mahur river valleys of North Cachar Hills that resulted in the discovery of a stratified Neolithic site at Daojali-Hading located inside the Langting-Mupa forest (Sharma 1984). Secondly, in a region where the study of archaeology has remained marginal, the excavation from Daojali-Hading for the first time not only revealed the stratigraphic context of the Neolithic and extended the boundary of the East Asiatic Neolithic ‘corded ware’ to Northeast India but also confirmed the earlier held hypotheses of E.C. Worman (1949) and A.H. Dani (1960) that the Neolithic Culture of Assam is closely linked to the East Asiatic Neolithic Complex. Ever since this pioneering work, the attention of several prominent archaeologists were drawn such as K. de B. Codrington from the Institute of Archaeology, University of London; Wilhelm G. Solheim, University of Hawaii; Chester Gorman, H.D. Sankalia, S.N. Rajaguru, R.V. Joshi, R.S. Pappu, V.N. Misra, who visited Assam to examine the collections from Ganol, Rongram and Simsang valley (Sharma 1984). With more institutional involvements, there was slow but steady progress not only in survey programs and the number of sites discovered and reported, but archaeological activities in the region began to take on different perspectives as research gradually grew to be problem-oriented, both in theory and method.

Right from the early days of his career, T.C. Sharma was quick to address the need for new perspectives to the archaeology of the region for a more holistic understanding of the region’s prehistory. In particular is his PhD thesis Prehistoric Archaeology of Assam: A study on Neolithic Cultures (1966) that discusses on the typology of tools and potteries, tool technology and an ecological approach to the distribution of different tool types within the Neolithic based on differences in raw material, and also the need for an ethnoarchaeological understanding of the archaeological data from some of the Neolithic survivals such as shifting cultivation, method of bark-cloth making and cord-impressed pottery. Several other papers and addresses wherein he has articulated these concerns are evident in his papers Man, Habitat and Ecology (1983), New Approaches to Anthropology: Archaeology at Anthropology (1995) and also in two of his Presidential addresses of the Indian Society for Prehistoric and Quaternary Studies (ISPQS) (1984) and the North East India History Association (NEIHA) (1993). However, a more insightful account of his concern towards the region’s archaeology is enumerated by his surviving daughter, Sukanya Sharma (this volume). Perhaps it was one of his dear wish to see Northeast Indian archaeology rise above a mere fact gathering
activity to a more matured discipline thus taking critical stance to address on the problems confronting contemporary Northeast India from archaeologically derived knowledge. This is eloquently exemplified in his ISPQS Presidential address:

The prehistorians are likely to face a question whether the study of prehistory, which makes heavy demands on a multitude of disciplines and on technical skills on staffs engaged in the field, and laboratory works involving claims on state financial resources, has any relevance to modern society. In a free society like ours, the only means available to the prehistorians to thrive in their profession, demands on our part to secure a social sanction of our work by showing to the people as to how much social needs prehistory can serve (Sharma 1984: 9).

It thus goes without much saying that T.C. Sharma has been a prominent figure in the Archaeology of Northeast India for over half a century until his demise in November, 2011. Our own limited reading on his work, followed by discussions with his post-graduate and doctoral students, and from our brief association with him during a workshop on Archaeological Ceramics and Stone Tools held in IIT, Guwahati in November, 2008, we offer this tribute to the memory of him.

Born in April 1929 in Dakshingaon village under Nalbari district, Assam, Tarun Chandra Sharma received his early education from Nalbari Gurdon High School, Assam. He then pursued his B.Sc. Honours in Anthropology from Cotton College, Gauhati (1951) standing first in the order of merit and further obtained his M.Sc. in Anthropology from Gauhati University in 1958 with distinction and gold medal. Finally in 1966, he was awarded his PhD in Archaeology by the Institute of Archaeology, University of London under the supervision of Professor K. de B. Codrington.

During his stay in London, it was his interactions and association with his admired teachers Professor K. de B. Codrington, Institute of Archaeology, University of London and Drs. F.R. Allchin and Bridget Allchin of the University of Cambridge that changed his perspectives towards the archaeology of Northeast India. Adding to his early achievements, he was the recipient of the Commonwealth Scholarship by the British Government for conducting a PhD research project on Prehistoric Archaeology of Assam between 1963-66. For the merit of his PhD thesis and also his contribution to the Archaeology of the region, he was awarded the prestigious Gordon Childe Memorial Prize by the University of London in 1966.

Besides his pioneering work at Daojali-Hading, Sharma's other contributions to Northeast Indian prehistoric studies includes his exploration to the Rongram valley where Neolithic cultural materials were reported from Rongram Alagiri, Selbalgiri and Chitra Abri. A flake and blade industry, microlithic industry, chipped stone axe industry, and a ground and polished stone industry associated with a crude handmade pottery were reported from his trial excavation at Selbalgiri and results of the excavation consecutively published in Indian Archaeology-A Review (1966-67, 1967-68). Missimagiri in the West Garo Hills was another site where he reported a microlithic industry made from dykes. Due credit must also go to Sharma for his identification of a Hoabinhian lithic technological tradition (a post-LGM lithic tradition of terminal Pleistocene to Early Holocene in Southeast Asia) at Rongram Alagiri for the first time in the region. Few of these sites along the Rongram-Ganol river valley were later investigated with new perspectives by his daughter, Sukanya Sharma as part of her doctoral study.

Although radiometric dates for the reported Palaeolithic elements from Northeast India remains wanting for the moment, yet the tentative cultural schema (Hoabinhian, Early Neolithic, Late Neolithic and Aneolithic) beginning from terminal Pleistocene which he earlier proposed for the region's prehistory still continues to hold good as emerging evidence suggests. Barring these areas, he was also instrumental in persuading the Govt. of Assam for the protection of the Ambari historical site which he jointly excavated with M.K. Dhavalikar and Z.D. Ansari from 1970-71 (see Sharma 1989). It was also perhaps for the first time that through his contributions in the edited
volume of N.R. Ray *Sources of the History of India* (1980) that a prominent publication on Indian history dealt with the region extensively, which prior to this, Assam or Northeast India was hardly mentioned in the history books of India (Sengupta and Sharma 2011: 356). Today, due credit is given to the site of Daojali-Hading for understanding the early farming communities of Eastern India in the text books at university as well as school level prepared by the NCERT.

He was also an Indian delegate to various conferences, including the 2nd *International Conference on Asian Archaeology*, Colombo (1969); the 9th *International Congress of Anthropological and Ethnological Sciences*, Chicago, USA (1973); the 9th *Congress of the Indo-Pacific Prehistory Association*, Pune (1978); and the 1st *International Congress of South Asian Archaeology* of the SAARC Countries, New Delhi (1985). He was elected President of the *Anthropological Society of Northeast India* (1976-77 & 1977-78); elected President of *Indian Society for Prehistoric & Quaternary Studies*, Pune (1984). He delivered the *Panchanan Mitra Memorial Lectures* (2 Lecturers) on invitation by the Asiatic Society, Calcutta (1987) and delivered the Platinum Jubilee Lecture, at the 82nd Session of the *Indian Science Congress*, Jadavpur University, Calcutta (1995).

Later in 1989, on retiring as Professor of Anthropology, Gauhati University, T.C. Sharma was subsequently appointed as Visiting Professor from 1990-94 in the Department of History & Archaeology, North Eastern Hill University, Shillong, in Kohima Campus, Nagaland. With the establishment of Nagaland University in 1994, he was again appointed Visiting Professor of Archaeology in the Department of History & Archaeology, Nagaland University, Kohima, from 1995 until his retirement in December 1997.

During his lifetime, T.C. Sharma was associated with several academic bodies such as *Kamrupa Anusandhana Samiti* (Assam Research Society), *North East India History Association*, *North East India Council for Social Science Research*, *Assam Science Society* & *Anthropological Society of Northeast India*, as Associate, *Current Anthropology*, Chicago, U.S.A. (1973); elected Fellow, *Royal Asiatic Society of Great Britain* (1965). He was Life Member of the *Indian Archaeological Society*, New Delhi; *Assam Science Society*, Guwahati and was a Member of the *Indo-Pacific Prehistory Association*, Canberra, Australia. He was also elected President of *Indian Society for Prehistoric & Quaternary Studies*, Pune (1984) and *North East India History Association* (1993).

He participated in excavations at Nevasa, Maharashtra (1960-61); co-field Director in excavations at Daojali-Hading, Assam (1961-63); as a student excavator in the British Museum Excavations at High Lodge, Suffolk, UK (1965); the Cambridge University Excavations at Norman Castle Site, Northampton, UK (1965). He was co-field Director, Archaeological Explorations and Excavations in the Garo Hills, Meghalaya (1967 onwards) and at the Ambari excavations, Guwahati, Assam (1969-71, 1996-97). He also studied the museum collections at the Archaeology Museum, Deccan College Post-Graduate and Research Institute, Pune (1960-61); British Museum, London (1963-64); Museum of Archaeology and Ethnology, University of Cambridge, UK (1964); Pitt-Rivers Museum; Oxford University (1964); Muse de L’Homme, Paris (1965); Muse Von Volke Kunde, Leiden University, Netherlands (1966). Several archaeological explorations and excavations in parts of Northeast India were conducted by T.C. Sharma, among which to his credit are his excavations at Daojali-Hading (North Cachar Hills), Selbalgiri in the Northwest Garo Hills and Ambari in the heart of Guwahati city. Systematic explorations were also undertaken in an attempt to discover Stone Age sites in Northeast India in parts of Garo Hills, Khasi Hills, Nagaland and Manipur.

He successfully supervised five PhD dissertations on different archaeological topics with emphasis on the investigations and studies of prehistoric Stone Age Cultures of Northeast India and the ethnoarchaeology of Megaliths. Also important among T.C. Sharma’s research programs are his project on Daojali-Hading, Assam (UGC and Gauhati University Research Project,
1961-63); excavations at Selbagiri (Garo Hills), Meghalaya (Gauhati University Research Project, 1968-69); excavations at Ambari (Guwahati), Assam (Gauhati University and Assam Government Research Project, 1969-71); explorations in the Ganol and Simsang Valleys (Garo Hills), Meghalaya (UGC Research Projects, 1974-76). He has also conducted investigations into the Quaternary geology of Meghalaya and Assam, jointly with Profs. R.V. Joshi and S.N. Rajaguru of the Deccan College, Post Graduate & Research Institute, Pune (UGC and Gauhati University Research Grants, 1977-78) and his work on the Prehistoric Archaeology of the Garo Hills, Meghalaya (UGC Research Project, 1983-84). He also conducted archaeological explorations and excavations in the North Cachar Hills, Assam and the Garo Hills, Meghalaya (UGC VIth Plan Research Grant, 1985-86).

It would require much more than just an introduction to give due consideration to all his publications which have emerged out of these research programs, nevertheless, a more exhaustive list of his publication can be found towards the end of this chapter. While few of the papers in the present volume cover an extension of Sharma’s previous researches with new theoretical approaches, there are however new broad areas such as social complexity and trade networks, experimental archaeology; oral tradition, literary text and archaeology; language, archaeology and genetics; community archaeology, archaeanzoology, bioarchaeology, archaeological metallurgy, heritage management and tourism, antiquity trafficking and cultural property rights, ancient monuments legislation and indigenous land rights, which have rarely been discussed in previous publications on Northeast Indian archaeology. We assume there are many more who are either established archaeologists of the region, or currently doctoral students engaged in their own area of research both within universities in India and abroad, but due to time constraints and our inability to reach to them by any possible means have made us realize the limitation of this present volume. Nonetheless, the chapters in the volume do valuable inform us quite a bit, if not more, about the state of archaeology and a highlight of the present changing trends taking shape in the region covering the eight sister states of Northeast India.

**Observation on some problems and challenges in the Archaeology of Northeast India**

A.A. Ashraf; *The Megalithic Cultures of Manipur* (2011) by Binodini Devi, and the more recent volumes like *Glimpses of Northeast India Archaeology* (2012) by Dhritiman Sharma; *Archaeological Heritage of Arunachal Pradesh: Discoveries from 1991-2011* (2012) by Tage Tada, Jagat C. Dutta and Nabajit Deori and some critical issues on the Neolithic of Northeast India in the volume *Neolithic-Chalcolithic Cultures of Eastern India* (2013) by K.N. Dikshit (Eds.) have all in their own right added considerably to our quantum of knowledge of the region’s archaeology. New fieldwork and subsequent archaeological data have also emerged but some of the old problems have remained with us particularly with respect to chronology and periodisation, recovery of environmental data and our theoretical models in understanding the cultural complexity of the Northeast region.

It comes to us as no surprise whenever our archaeological data do not fit within the mainstream Indian cultural schema and participants in an Indian archaeological conference are very often perplexed; and by the end of a presentation, it generally pass either as a ‘confusing’ or rather as an ‘interesting’ remark. Eventually, discussions winds up with suggestions to compare our dataset with Southeast Asia based on broad observed similarities across Mainland Southeast Asia and South China, a pattern previously recognized by Worman (1942) and Dani (1960). But even if this is so, a careful observation which generally escapes if taken a casual glance is a picture, which is still one of diversity within the region itself. Therefore, given the heterogenous nature of cultural development in Northeast India, an argument similar to what was once proposed on human adaptation for Southeast Asia by Charles Higham may be made here:

It is true that various aspects have been scrutinised, and usually interpreted, within the framework of ideas of prehistory brought from Europe or America. State formation is one instance, while there is a clear temptation to name the cultural sequence according to the three-age system of Neolithic, Bronze and Iron Ages. This temptation should be resisted if only because we deal with a little-known area in prehistory and there are no grounds for assuming that these subdivisions have any affinities with those proposed elsewhere (Higham 1989: 28).

Out of many, we can think of two important urban centres such as Ambari and Bhaibari. While these centres were flourishing, there were both agricultural and hunter-gatherer societies living in the upland areas of Northeast who rarely established contacts with the plains. This is indicative that there was no uniform progression of complexity in Northeast India and lends as an important proposition while arriving at chronologies and periodisation of the region. The cultural sequence and chronology for many of the region are nonetheless incomplete despite the considerable amount of work done. For an initial model formulation in a terra incognita region, Higham (1972) stresses the importance of first establishing a coherent cultural and chronological sequence before proceeding to more interesting issues thereby raised (Higham 1973). While building chronologies are important, it should not be treated as an end in itself. Application of radiocarbon dating and other analytical techniques to Northeast India prehistoric and historic sites is still in its infancy.

Since the discovery of the first stone artefacts from Upper Assam in 1867, new site discoveries and excavations, although not numerous, have nonetheless placed the prehistory of the region into – Palaeolithic, Neolithic and Megalithic phases. However, we are yet to understand these cultural sequences within a chrono-stratigraphical context. In spite of the paucity of absolute dates for building a more coherent chronological framework, T.C. Sharma (1966), based on typo-technological ground of the archaeological record, proposed a prehistoric cultural sequence for Northeast India beginning with the early Holocene Hoabinhian period, then succeeded by the Neolithic which might be seen as having two distinct phases: a) the Early Neolithic, and b) the Late Neolithic. Further, on the basis of stratigraphical evidences provided by S.N. Rajaguru (*IAR* 1981-82) and typo-technological
evidences of the Stone Age tools from Garo Hills and other parts of Northeast India, H.D. Sankalia (1981) proposed the following culture sequence for the Neolithic period: New Stone Age (A) - c. 5000 - 2000 BC and New Stone Age (B) - c. 2000 - 1000 BC. Based on the available stratigraphical data and typotechnological evidences corroborated by radiocarbon dates, N.R. Ramesh (1989) also proposed a chronological scheme for prehistoric cultures of Tripura as: Holocene–Evolved Tripurian = Upper Paleolithic–Early Neolithic: 3450±110 BP and Late Pleistocene–Late Tripurian = Late Middle Palaeolithic: 35690±3050 BP. Similarly, the sites of Nongpok Keithelmanbi and Napachik in Manipur have been dated to 4,460±120 years BP and 1450 BC respectively by O.K. Singh (1993). As far as we can judge from the present evidence, these are sporadic dates from different eco-zones of Northeast India which merely give a general picture of late beginning of Neolithic culture in the region (for a detailed discussion on the chronological issues of Northeast Indian archaeology, see Sarma and Hazarika – this volume) and we need to ascertain more than simply obtaining radiometric dates such as the nature of early domestication, why it took place in the given region, patterns of human adaptation and other wider ranging and critical issues such as the pathways to cultural complexities in the region.

Few palaeoenvironmental research based on multiproxy approaches have been carried out in the region of Northeast, both early and recent (see Gupta 1971; Goswami 1981; Bhattacharyya and Chanda 1982; Bhattacharyya, Chanda and Barui 1986; Nautiyal and Chauhan 2009; Prokop and Bhattacharyya 2011; Bera et al. 2011). Such research assumes importance since the evidence will offer insights to how human societies adapted to complex environmental conditions which is correspondingly evident from the variability in the settlement system and technological choices. It is quite apparent that there was inherent diversity in the environment in the region but efforts to understand the interplay of cultural and environmental variables to a particular adaptive pattern reaching back into the Pleistocene are yet to emerge. However, geographical data in terms of settlement pattern studies has been successfully applied in the river valley of Dhansiri-Doiyang valley for understanding historical growth of the area (Sarma 2006).

On the study of stone tools from prehistoric sites across Northeast India, lithic technology and microwear studies are neglected areas which need to be strongly emphasized in Northeast India. The lack of knowledge on lithic technology through replication based on experimental knapping, we believe, has led to debate on the presence of Palaeolithic elements in the region (see Sharma 1972; Sankalia 1974; Ghosh 1978; Medhi 1988; Chakrabarti 2006, Hazarika 2012) which has been loosely assigned on the basis of tool typology. In particular, the chaîne opératoire conceptual framework in lithic analysis that is used to incorporate the processes of lithic production and lithic use into the classification and interpretation of stone tools (see Van Peer 1992; Sellet 1993) is yet to be developed in Northeast Indian archaeology. Not only do they use these processes to understand the morphological variability but also acts to embed lithic technology into other aspects of human behaviour and organization (Jelinek 1991, cited in Andrefsky 2005: 38). While acknowledging its importance, we must however not lose sight of the cultural parameters. Likewise, experimental data generated from microwear analysis can further enhance our interpretation of the lithic artefact assemblage of the region.

Besides typology and a host of provenance techniques to the study of pottery, the last decade has seen a surge in ceramic ethnoarchaeological studies worldwide, covering such important topics as ceramic production, technological change, ceramic use and distribution, and social boundaries (Stark 2003). There are several works on Northeast ceramic ethnoarchaeology on contemporary potting communities covering areas ranging from organisation, methods of pottery production, its functional usages to trade networks (see Roy 1977, 2004; Ngullie 2006,
Patterning observed in decorative styles in pottery has often been used to differentiate and assign past cultures and define social boundaries (see Stark 1998). But it is increasingly recognised that the study of decorative style is insufficient for identification of past social boundaries. Whereas decorative styles can span cultural boundaries through trade and imitation, technological styles endure through transmission of technological know-how across space and time via socially constructed learning frameworks (White 2011: 11).

Ever since the publication of the book Archaeology and Language: The Puzzle of Indo-European Origins (1990) by Colin Renfrew, several volumes on the development of theory and methodological orientations have come about in relatively recent archaeological literature on ‘Archaeology and Language’ (Blench and Spriggs 1997a, 1997b 1998, 1999) and ‘Farming/Language dispersal’ (Bellwood and Renfrew 2002; Higham 2002; Bellwood 2005). Relatively more recent papers have shifted these ideas to Northeast India (see van Driem 1998, 2008; Bellwood 2006; Hazarika 2006; Blench 2011). Of particular interest is the hypothesis put forth by van Driem (1998: 85-86) from both historical linguistics and the existing archaeological sources that the first to emerge from the Tibeto-Burman heartland in Sichuan were the Western Tibeto-Burman pioneers who introduced the technologies of the Indian Eastern Neolithic and themselves to the Austroasiatic populations of northeastern India, probably by the seventh millennium BC. Since then, van Driem’s model of Tibeto-Burman prehistory has changed, based first on linguistic evidence and then on supporting human population genetic evidence. Finally he assails the gaps in the archaeological record and the neglect of the Neolithic by archaeologists across vast swathes of the eastern Eurasian heartland. First of all, on the basis of his revised ‘Fallen Leaves model’ of the Trans-Himalayan linguistic phylum, van Driem (2011a: 141) pointed out that the centre of the language family lay not in Sichuan but in Northeast India. The geographical centre point of the language family may well lie in Sichuan in terms of the distribution of modern language communities, but, in terms of the distribution of major subgroups or recognized taxa within the Tibeto-Burman language family, the centre of gravity decidedly lies in Northeast India. Similarly, van Driem also suggests based on linguistic paleontological data and epicentre of phylogenetic diversity of Austroasiatic language communities, the geographical centre of gravity of the family may be proposed to have lain in the area around the northern coast of the Bay of Bengal covering the eastern extremity of South Asia and much of the southern littoral of Southeast Asia. On linguistic grounds alone, the original homeland of the Austroasiatic could have lain ‘on either side of the Ganges and Brahmaputra delta’ (van Driem 2011b: 16-17, 2011c: 361-362, 2012: 191).

The other model which comes to mind is that proposed by Blench (in press) who attempts to reconstruct the prehistory of Northeast India from comparative and historical linguistics suggesting the current pattern of languages from possible demographic movements in prehistory:

- The earliest speakers of Sino-Tibetan were highly diverse foragers living in an arc between the eastern slopes of the Himalayas and regional lowland jungles up to 9,000 years ago and practising arboriculture (sago)
- Some spoke early Sino-Tibetan languages, others unknown languages now present primarily as substrates and the rare case of a modern isolate such as Kusunda
- Seasonal foragers exploit the high Tibetan Plateau from 7500 BP
- Perhaps 6-5000 BP ‘livestock revolution’ takes place in the mid-level Himalayas. Yak herders move up and settle the Tibetan Plateau permanently
- Gathering of wild cereals (buckwheat etc.) and tubers (high-altitude taro) leads to proto-agriculture in the mid-level Himalayas
Foragers who will become the Naga complex began to practise vegeculture (taro, plantains) (NE India) and animal management (mithun) by 6000 BP possibly, through contact with Austroasiatic speakers.

By 5000 BP diverse early Sino-Tibetan groups in the Himalayas begin spreading eastwards to China. Sinitic is not a primary branch, but simply the language of one of many migratory groups.

Proto-Tujia, proto-Bai and probably others meet unknown populations (Hmong-Mienic? Austronesians?) with domestic pigs, millet, while also cultivating and beginning to domesticate rice.

Proto-Sinitic speakers encounter early Altaic speakers with foxtail millet and other crops.

The Sinitic languages expand southwards, assimilating or encapsulating many small groups. They encounter Hmong-Mien speakers with rice and switch millet terminology to rice.

Rice moves up from India but also westwards from China (hence hybridised types) and overlays older cereals where ecologically possible.

Ruminants (cows, sheep, goats) spread downwards into China from Central Asia 4400 BP (? Altaic for small ruminants but not cattle).

Tibetic speakers undergo a major expansion (when?) assimilating linguistic diversity on the Plateau.

Rice invades the lowland vegecultural zones rather later, pushing taro into residual systems.

Groups such as early Burmic spread southwards, fragmenting Austroasiatic-speaking peoples.

Testing such propositions is without doubt an immense challenge but not beyond our reach. At the same time, the lack of potential archaeological data on early cereals and livestock in the region to support the claims made above is a reminder that we have much to do in order to understand the transition from foraging to farming and sedentism in the region. Nonetheless, data from archaeobotanical, archaeozoological and a constellation of evidence from different disciplines would make our approaches more plausible in tackling these issues.

Several sites in Northeast India bearing Hoabinhian characteristics have been reported from Rongram Alagiri (Sharma 1986, 1988), Nongpok Keithelmanbi (Singh 1986, 1993, 1997), Parsi Parlo (1990) and Ranyak khen (Mimi) (Jamir et al., in press). Simply implying that the users of Hoabinhian tools belonged to a single ‘culture’ (see White 2011) is not enough as there has been noteworthy regional variation even within the Hoabinhian. But despite the variation observed, it is maintained by White (2011) that the lithic tradition appears to have been a technology shared across a wide range of environments, tropical to subtropical, uplands to coastal with a variety of mobility pattern. It is further observed that while movement of populations using Hoabinhian technology cannot be discounted, neither is migration a necessary cause of the widespread dispersal of the technological tradition. Instead the technological tradition may represent an easily learned manufacturing process on a natural resource (river cobbles) widely available in a region rich in rivers draining uplands (White 2011: 27). This technological system was used with diverse subsistence strategies in varied environmental zones in Southeast Asia including upland/karstic and coastal (see Gorman 1971). Although it has been suggested that the flaked cobbles were used to work bamboo (Bannanurag 1988; Corvinus 2007), it has also been suggested that the Hoabinhian assemblages show no single subsistence or food resource regime (Yen 1977; Pyramarn 1989; Nguyen Viet 2008). From the aforementioned, if we postulate variation in subsistence mode and variants in the morphological, functional and reduction sequences of the Hoabinhian assemblage of the Northeast, as proposed elsewhere by White (2011), there is also a need for a systematic methodology to
understand the entire reduction system within the Hoabinhian assemblage of Northeast India. Besides, dating attempts are essentially required from this part of the Hoabinhian cultural zone. The TL chronology for the Hoabinhian bearing layers in Nepal is older than the $^{14}$C minimum age of c. 7,000 years BP. The Hoabinhian of the Arjun site of Nepal is proposed as late glacial (Zoller 2000). The recent time bracket of the Hoabinhian in Vietnam is between 18,000 and 7,000 years BP (Chinh et al. 1988), 19,500 and 8,400 years BP or even as early as 29,140 BP (Yi et al. 2008). The discovery of Hoabinhian or Hoabinhian-like industry in the Siwaliks, Nepal, the Garo Hills, Manipur, Arunachal Pradesh and Bhutan suggests a population movement across the area (Hazarika 2012, 2013). It is a matter of crucial importance to investigate the dispersal of Hoabinhian traits from Southeast Asia to as far as the northwestern sub-Himalayas through Northeast Indian corridor.

At a methodological and theoretical level, we must witness progress in fieldwork procedures, the theoretical approaches and analytical techniques which will have a direct impact on the reconstruction of the region's prehistory. Archaeological studies are now increasingly dependent upon a variety of scientific disciplines for gaining valuable insights to the prehistoric past and archaeologists in Northeast Indian universities and State departments must therefore not only put an effort to integrate other branches of science to their research but must also take pains to keep themselves informed of the general principles involved in its application. Equally important is the diverse theoretical approaches within which archaeological practice is situated today in the contemporary world. To this, Mizoguchi (2006) maintains, “Effects of transformation of modernity have become strongly felt in archaeology and the atmosphere can be captured by some buzz words in the literature: fluidity, fragmentation, globalisation, multivocality, identity and so on. Each of them... evoke a sense of indeterminacy, which contradicts the essence of the conventional definition of science as the pursuit of Truth, but they also raise hope for the beginning of new types of science more relevant to what is going on in the contemporary world” (xiv).

Gone are the days where thick descriptive narratives of the finds from the trenches are reported in published excavation reports as an end in itself without integration of the archaeological data to the environment, social, economic, technological, religious and cognitive aspects of past human behaviour. Although arduous, but establishing a better linkage between our conceptual framework and the archaeological record, we can approach nearer to the vast archaeological problems of the Northeast with better conceptual clarity and interpretative schemes. While scattered and patchy evidences are numerous but the sites, leave aside poorly established dates, have hardly been properly excavated with considerable skills, and also least effort paid for systematic recovery of bioarchaeological data thus leaving a sketchy archaeological record (on a critique, see Jamir 2013). One problem often faced is the limited funding both for large-scale horizontal excavation and the post-excavation analyses. But unless attempts to horizontal excavations are made, hope to understand past socio-economic development as well as other aspects of culture (on an earlier concern in NE India history writings, see Sharma 2004, 2006a, 2006b), be it–prehistoric or historical period–will be limited in scope. Equally important, it is time that we must also look into the varied context within which archaeological knowledge is produced in the present by archaeologist of the Northeast region.

Given the rich repositories of traditional knowledge systems, on ethnoarchaeological ground, the traditional knowledge pertaining to agricultural practice (farmer’s knowledge), dwelling and storage structure, technological knowledge etc. in Northeast India becomes crucial tools for reconstructing the past subsistence system based on present day parallels. Another important aspect which can be addressed is – an understanding of man and environment relationship in the region that can be drawn from modern day
parallels of human ecological approach of exploitation of varied wild floral and faunal resources by the local inhabitants. Thus from the above, we are confident that Northeast India has lots to offer by proposing relevant ethnographic models not only specific to the region but also to the archaeological record of Mainland India and elsewhere. There are also occasional references in historical sources on the different technologies of iron, bell-metal, gold-washing during the Medieval period, however, systematic scientific investigations are yet to follow and therefore must soon be undertaken lest such tradition disappear or vanish in due course of time.

It should, thus, be imperative that our attention to the current state of archaeology in Northeast India should go beyond simply producing reports of new discoveries or preliminary results of on-going works but also explore varied potential concepts in which to investigate and conceptualize early Northeast India, with particular focus on how current theoretical and
methodological approaches in archaeology or even our indigenous traditions, will aid to address and improve upon our understanding of contemporary Northeast India beginning from prehistory. Having said this, there are papers in this volume which highlights the extent
of research in their own respective State or region, but once these areas of research and new perspectives are set clear in the volume, it is our optimism that upcoming archaeologist of the region would embark on these least explored dimensions to better understand the region’s past. It is with high expectations that the present commemorative volume in honour of one of the most distinguished archaeologists of the region will bring together some of these issues from...
Northeast India to the current mainstream anthropological, sociological, historical and archaeological discourse.

**Publications by Prof. T.C. Sharma**

**Articles in Journals & Proceedings**

1983. The Indo-Mongoloids and their contributions to the Culture and Civilization of India, *Bulletin of Tribal Research Institute, Assam* I (1):
1986. Researches into the Prehistoric Archaeology of the North Cachar Hills, *Bulletin of Assam State Museum, Guwahati* IX:
1986. Recent Archaeological Development in North East India, *Proceedings of SAARC Archaeological (Memo)*.


Book chapters


### Popular articles (English)


Books (Author & Editor)


1972. (in Assamese) *Nritattva Parichaya* (Part-I) (Chapters 8-12), Text Book for Pre-Degree Courses in Anthropology. Gauhati University: Text Book Committee.


### Invited Lectures

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Lecture-I: Rise of Archaeological Thoughts.

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