The Neolithic Cultures of Northeast India and Adjoining Regions: A Comparative Study

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The neolithic culture of Northeast India forms a distinct identity in the Neolithic cultural tradition of India. E.C. Worman, V.D. Krishnaswami and B.K. Thapar classified the Neolithic cultures of India, whereas A.H. Dani, T.C. Sharma and O.K. Singh discussed the issue of Northeast in a broad spectrum and added more dimensions in solving the neolithic problem of Eastern India. The agricultural origin – the transition to food production and domestication of animals is attracting increasing attention as a topic of enquiry in different parts of the world. Northeast India has not yet provided the basic subsistence economic pattern which includes not only polished stone tools but also other cultural traits like pottery, animal husbandry and process of beginning of agriculture. In this paper, an attempt has been made to highlight the vast repertoire of stone tools and pottery from different states of Northeast and their position in the neolithic status of Eastern India.

Since the first discovery of a Neolithic artifact of blue jadeite stone in Eastern Indian context by Sir John Lubbock in 1867 from Assam (Lubbock 1867), a number of publications have reported the finding of neolithic celts by amateur as well as by professionals (Steel 1870, Barron 1872, Hutton 1924, Cockburn 1879, Godwin Austen 1875, Anderson 1871, Banerjee 1924, Dasgupta 1913, Coggin Brown 1914, Walker 1931 etc.). However, these findings could not be placed in its proper perspective in neolithic cultural context in pre-independence era. With the initiation of problem-oriented research, many excavations were conducted in India which no doubt provided valuable information and proved to be of far-reaching importance and added more dimensions in solving the neolithic problem. Subsequent broad-spectrum studies by E.C. Worman (1949), A.H. Dani (1960), V.D. Krishnaswami (1962), B.K. Thapar (1965, 1974, 1978 and 1985) have placed these neolithic materials in the framework of Indian Neolithic as the earliest farming communities of the Indian sub-continent as happened in rest of the World. The agricultural origins – the transition to food production is attracting
increasing attention as a topic of enquiry in different parts of the World (Fig. 1).

The post-glacial period has witnessed a marked change in human history with the beginning of agriculture which has changed the entire scenario of human adaptation from hunter-gathers to farmers. This shift in the economical basis of the prehistoric societies has been termed as the “Neolithic Revolution” by V. Gordon Childe (1936, 1942). This revolutionary change has led the mobile foregers and hunters to settle down in a place where they could conduct certain farming activities and resulted in surplus food and necessity of storage facilities. Permanently settling down at a place has led to the formation of villages and gradually more complex societies. To understand the neolithic culture as a whole, one must understand the basic traits observable in archaeological context. Upon recognising the basics traits as signatures of those early farming communities, one can safely place the horizon as “neolithic”. Sir John Lubbock termed all the remains of prehistoric man which included the polished stone tools and appeared in the archaeological context before the emergence of metal as Neolithic. The Neolithic has been defined in the Encyclopaedia Britannica (1969: 214) as those archaeological assemblages having (i) polished stone tools, (ii) pottery, (iii) horticulture and/or domestication of animals. In recent years, each of these traits has been individually examined and empirically tested for understanding region-specific origin and growth of the culture. In this line of enquiry, the beginning of farming and domestication of animals has gained much attention for reconstructing the change in basic subsistence economy of prehistoric societies.

In the context of Northeast India (Fig. 2), one may painfully admit that the region
has not yet provided the basic subsistence economic pattern which includes not only stone tools but also other cultural traits like pottery, animal husbandry and the process of beginning of agriculture. In fact, in the beginning main emphasis was given on the discovery of stone tools and pottery but the application of modern studies such as analysis of phytoliths, residual, carbonised grains were not taken into account. These studies will help in understanding the transition from wild species to domesticated
ones, not only confined to animals but also to food items such as rice etc. (Hazarika 2006a, 2006b)

J.H. Hutton (1928) was the first scholar who attempted to give a systematic synthesis of the prehistoric artifacts found in Northeast India. K.L. Baruah (1939), an Assamese scholar, prepared a comprehensive regional synthesis of the celts found in old Darrang and Cachar districts and compared with the adzes found in Burma and Chotanagpur region of India. Other scholars like P.C. Choudhury (1944) and E.C. Worman (1949) made systematic attempts at understanding

Fig. 3: Map of the Neolithic Pattern of India (after Krishnaswami 1962)
the neolithic scenario of this region by considering the stone tools.

E.C. Worman (1949) plotted the neolithic sites found in Indian context which were exclusively in Assam and Bengal and also in central and southern India – south of the Ganga plain and north of Puddukkottai. His conclusion was that there is no positive evidence of the existence of neolithic people before the use of metal and most of the neolithic celts of Indian origin have their cultural affiliation from Southeast Asia at different dates. One can draw the conclusion by his remarks that Indian neolithic celts, may belong to the Chalcolithic phase and India has no neolithic phase as such.

A.H. Dani (1960) who has made a detailed study of eastern Neolithic culture divided Assam and north-eastern states into six zones such as Cachar hills, Sadiya Frontier zone, Naga hills, Khasi hills, Garo hills and Brahmaputra valley zone, whereas he made the classification of tool types under seven categories such as facetted tools, shouldered tools, splayed axe, rounded but axe with broad cutting edge, wedges and grooved hammer stones. On the basis of his analytical study of tool types, he was also of the opinion that Southeast Asian elements came in different waves at different times through Myanmar (former Burma) and a definite chronology could be ascribed “on the basis of a black polished ware associated with the specialised tools of the later complexes of Burma”.

V.D. Krishnaswami (1962: 25-64) divided the Indian Neolithic complex in four provinces (Fig. 3), viz. A – central and western India, B – southern India and D – Kashmir and grouped the East Indian Neolithic complex as Province C – eastern India including two regions, i.e. (i) Assam (Fig. 4) and (ii) Bengal-Bihar-Orissa on the basis of the study made by Dani. He has called the classification of Worman (1949) as ‘purely academic and theoretical’ and presented his classification dictated by geographical factors as ‘each group of tools of a particular region shows a distant kinship in material and form’ although manufacturing technique is common. It may also be mentioned that “as the material was obtained generally in the form of flat slabs from stream-beds, very little chipping or flaking was necessary, battering or hammering and grinding or smoothing being sufficient to produce tools” (Krishnaswami 1962: 51).

B.K. Thapar (1978: 11-22, 1985: 37-43) who has also studied the problem of neolithic, divided the culture into six geographical zones, (i) Northern covering the Kashmir valley, whereas eastern India has been identified as (ii) Belan valley covering the Vindhyan Plateau in districts Allahabad, Mirzapur, Rewa and Sidhi, (iii) Northern Bihar or Mid-eastern covering district Saran, (iv) North-eastern covering Assam and the adjacent sub-Himalayan region, (v) Central-eastern covering Chotanagpur plateau with its Peniplains extending in West Bengal and Orissa and (vi) Southern, covering the Peninsular India. Out of the six regions, he has taken up the northern region
Fig. 4: Surface collection of neolithic stone tools from Assam (Northeast India) (after Krishnaswami 1962: 52-53)

1. shouldered hoe, irregular and broad, 2. shouldered hoe, irregular and long, 3. axe with broad cutting edge, 4. faceted hoe with long parallel sides, 5. faceted hoe curvilinear, 6. shouldered hoe, regular and broad, 7. shouldered hoe, regular and long, 8. shouldered hoe with regular and crescent shaped body, 9. faceted hoe with unifacially ground edge, 10. gouge-adze, 11. rounded butt axe, curvilinear, 12. rounded butt axe with bifacially-ground median edge, 13. splayed axe, 14. tanged axe, 15. faceted hoe with bifacially-ground median edge, 16. rounded-butt axe, unifacially ground edge-bevelled, 17. wedge-blade, 18. faceted tool with side notches
– Kashmir valley and Belan valley where new excavations were carried out in 1960s and 1970s. While talking about the Belan valley he has emphasized that in these regions in neolithic levels, blades, pottery, querns, mullers, sling balls, celts, bone arrowheads, terracotta beads and bones of animals were noticed. The paleo-botanical analysis has revealed rice husks of domesticated variety as a degraisant in pottery. G.R. Sharma put this date to 7th – 5th millennium BCE on the basis of the C14 dates from the neolithic levels at Koldihwa which has so far provided the earliest evidence of rice cultivation in the sub-continent (Thapar 1965: 87-112, 1974: 61-65).

T.C. Sharma (1966) systematically studied the neolithic material from Northeast India kept at various museums in India and abroad and compared with excavated material from Daojali Hading. He strongly believes that the neolithic personality of this region has emerged under a strong influence of Chinese and Southeast Asian Neolithic which has an earlier tradition known as Hoabinhian. Gorman (1970, 1971) while working at Spirit Cave found Hoabinhian tools overlapping with the neolithic pottery and ground stone adzes. Similar situation also existed at Vietnam and in other northern areas where Hoabinhian evolved into a fairly coherent agricultural array of neolithic culture (Bellwood 1985).

**CHARACTERISTIC CULTURAL TRAITS OF HOABINHIAN CULTURE**

Hoabinhian is a cultural techno-complex of Southeast Asia, both of mainland and island. The term is used to refer to the lithic assemblages from the Terminal Pleistocene and Early Holocene of Southeast Asia characterised by unifacial, centripetal and circumferential cobble reduction and resulting flakes and debitage (Marwick 2008). However, the term Hoabinhian has been under debate (Shoocongdej 2000). The Hoabinhian techno-complex (Bellwood 1978) is defined purely on the basis of tool categories comprising pebble tools, utilised flakes, and a small proportion of edge-ground tools and bone tools, and in the later period pottery and fully ground axes and adzes also occur. The Hoabinhian sites are spread over a broad region from Southern China, North Vietnam, Malaya, Thailand, Laos, Cambodia, Sumatra, and Taiwan. While excavating at Spirit cave, Gorman reported Hoabinhian tools of later period overlapping with the Neolithic pottery.

**DATA FROM EXCAVATED SITES**

Northeast India includes the present day states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The entire area covers several geographical divisions proposed by Singh (1999) such as: Assam valley covering the Brahmaputra plain, Eastern Himalaya, Purvanchal and Meghalaya-Mikir region covering the hilly surroundings of the valley. The region is criss-crossed by several tributaries and streams of the Brahmaputra and Barak rivers. However, most of the Neolithic sites are located on the hilly tracks.
or upland areas suggesting a unique trait of this cultural phase in the region.

The post-independence era has witnessed excavations at a handful of sites carried out by the universities located at Guwahati, Dibrugarh, Shillong etc. and several State departments of archaeology in Eastern India besides Archaeological Survey of India. To discuss the issue of the genesis and growth of the early farming communities in the region, it will be pertinent to address the data gathered from each of the excavated site separately and compare within the framework, which may be termed as “Northeast Indian Neolithic Complex”.

ARUNACHAL PRADESH

Arunachal Pradesh, erstwhile N.E.F.A. (North East Frontier Agency) falls in the division of Eastern Himalaya (Prasad 1999). There are reports on the sporadic finds of neolithic stone artifacts from time to time both in surface context as well as in possession of local inhabitants. Besides the discoveries made by M.C. Goswami and his colleagues (Goswami et al. 1972) from the Kameng district and the joint scientific expedition in the Daphabum area led by the Geological Survey in collaboration with the Anthropological, Archaeological, Botanical and Zoological surveys (IAR 1969-70, Bopardikar 1972), the most noteworthy and extensive surveys were carried out by A.A. Ashraf (1990) in different parts of Kamla and Kurung valleys since 1982. The exploration resulted in the discovery of the stratified Neolithic site at Parsi-Parlo where excavations were conducted subsequently.

PARSI-PARLO

The Neolithic site of Parsi-Parlo, excavated by A.A. Ashraf (1990), is situated on the northern slope of the Terrace I at a height of 12 m from the river bed of Kamla on its right bank. Excavation at Parsi-Parlo during 1982-83, revealed about 50 to 100 cm thick cultural deposit. Scrapers and large cutting tools with the rudiments of pecked and ground techniques characterize phase I at the site. Raw material used for manufacturing tools of this phase was consisted of sandstone and quartzite. Phase II represents the layer (2) and is characterized by the occurrence of pecked and ground stone implements, wasted blade/axe and faceted tools with handmade pottery. It is the continuation of the preceding phase with conspicuous absence of scraper and other large cutting tools and also the emergence of pottery. The tool kit, in general, provides hafting facilities and is mostly agriculture based. At the site of Parsi-Parlo, a small number of potsherds represents square-grid and honey-comb (web) beater-impressed pottery. Lavigation is poor and it contains high percentage of gritty particles. The pottery represents bowl with featureless rim and constricted neck, lipped pot with globular body made for culinary purposes. Again, potsherds discovered at this site of Taba are coarse in texture and these were handmade and comprise plain (thick and coarse) ware, stamped (grid pattern) ware and irregular corded ware.
DAPORIJO

Directorate of Research, Arunachal Pradesh (IAR 1995-96) explored in and around Daporijo around 20 sq km, in 1994-95 and conducted excavations to ascertain the existence of the Neolithic culture of that area, after having found few artifacts on the surface. Fifteen trial trenches of 2 × 2 m were dug to ascertain the chronological setup of the Neolithic culture. The depth of the trial trenches were between 35 to 40 cm, and the artifacts were found in layer (2). All the 11 Neolithic tools are highly weathered and made of soft clay stone, typologically belonging to the Neolithic axe group (IAR 1994-95: 3, IAR 1996-97: 2-3).

ASSAM

Perhaps the most well-known sites of entire Northeast India is Daojali Hading located in a low hillock having an altitude of 1,000 feet AMSL in the North Cachar Hills was discovered by M.C. Goswami (Goswami and Sharma 1963).

DAOJALI HADING

Excavations carried out at the site by M.C. Goswami with the assistance of T.C. Sharma revealed the stratigraphical position of the Neolithic culture of Northeast India for the first time. During the year 1961, a 3.6 × 0.75 m trench was laid out whereas in 1963, 4 regular trenches were dug in the undisturbed parts of the mound at Daojali Hading. The archaeological finds consisted of potsherds and stone implements. The site which has a deposit of 1.5 m revealed three layers as mentioned below:

Layer I. Dark loose earth, approx. 20 to 30 cm thick, archaeologically sterile
Layer II. Dark grey and loose upper half, and light grey lower half, about 75 cm thick, archaeologically rich, bearing stone tools of various types and potsherds
Layer III. Yellowish brown compact earth of about 45 cm

T.C. Sharma (1966) studied the collection of stone artifacts recovered from excavations, road cutting and surface at Daojali Hading (Fig. 5). The artifacts from excavation comprised of 32 edged tool, 22 grinding stones, 4 querns, 6 mullers, 11 quartzite pebbles and fossil wood. The raw materials used are locally available shale, sandstone, quartzite and fossil wood. Shale was used for making edged tools and so also fossil wood; sandstone for grinding stones, whetstones, querns, etc. Artifacts from the road cutting and the surface also show similar nature of composition. The edged tools are made by flaking and grinding. The ground tools falls into two main groups:

1. Edge ground: four specimens
2. Fully ground: They are further sub-grouped as:
   i. Tanged or shouldered celts with three sub-types:
      a. Curvilinear.
      b. North Cachar Hill variety
      c. Rectilinear variety
   ii. Small celts with three sub-types:
      a. Oval
      b. Triangular
      c. Quadrangular
d. Quadrangular adzes

e. Chisels

The pottery from Daojali Hading was classified by T.C. Sharma (1967) into three varieties, i.e., 595 pieces of cord-impressed variety (Fig. 6 & 7), 19 pieces of stamped dull red variety, and 11 pieces of brick red variety. Majority of the potsherds are heavily weathered and broken into small fragments which prevent in identifying the shapes and forms of the vessels. The cord-impressed coarse grey ware is made of coarse and unevenly mixed clay, heavily tempered with large quartz particles. These vessels were prepared by the coil-building method.

The presence of querns and mullers clearly suggests that the available grains were grinded in the querns which provides indirect-evidence regarding the use of food plants in the neolithic society.

As no substantial work has been done in this direction, it is difficult to state whether these plants were wild or domesticated. Future work will shed light on these issues.

SARUTARU

S.N. Rao (1977) carried out an excavation at the neolithic site of Sarutaru in Kamrup district, Assam, during 1967-73, under the auspices of the Department of Anthropology, Dibrugarh University. Sarutaru is a hamlet situated at 25 km southeast of Guwahati, and the Neolithic site lies on the top of a small hillock about 125 m high from the foothill. On the basis of an accidental encounter of a few ground stone celts during the construction
of a farmhouse on the hillock at Sarutaru, the site was selected for excavation for understanding the stratigraphical position of the artifacts. Three trenches, measuring 3 m square each, were laid and dug to a depth of 65 cm. Excavations revealed the cultural horizon at a depth of 20 cm from the surface continuing up to a depth of 56 cm till the sterile layer. Artifacts include ground stone celts and potsherds.

The stone industry of Sarutaru includes 9 ground stone celts made of slate of grey to black colour and sandstone of cream to buff colour. These are manufactured in two stages: chipping and grinding. Celts made on slate are generally flat and require less of chipping. In such cases the stone celts are ground at the working edge only. In the case of sandstone material chipping clearly preceded grinding. The tools that were obtained by chipping and grinding retain the flake scars on the surface in spite of subsequent grinding all over the body. The stone tools are classified by S.N. Rao (1977) into two types: 7 shouldered celts and 2 round-butted axes.

The shouldered celts are made of flat and thin nodules of slate; as a result, both the faces are smooth and the sections thin. The straight and broad cutting edge is sharp due to bifacial grinding, about a cm from the
edge. Two curved shoulders on either side form the tenon at the butt. The shoulders were obtained by making two grooves on either side, first by chipping and then by grinding, possibly with a harder rounded pebble that was no more than a cm long. In one specimen one of the shoulders is finished, almost to the right angle. The edge on one shouldered celt is blunt due to utilization that leaves indentation marks. The round-but axe is ground all over and yet retains a few flake scars due to chipping. It has a medium cutting edge that is sharp and broad. The sides gently taper to make the butt-end rounded and the cross-section biconvex. Numerous potsherds were recovered from the excavations at Sarutaru in association with stone axes. Pottery is handmade and made of clay mixed with quartz particles that show up on the surface. Three ceramic types, on the basis of colour, have been recognized: brown, buff and grey. The ceramic is sometimes decorated with cord-impressions or basket-impressions on the exterior in the form of either parallel or criss-cross lines.

**MARAKDOLA**

S.N. Rao (1977) carried out another excavation at the site of Marakdola which was a low mound situated at distance of 1 km from the Neolithic site of Sarutaru to
derive a relative date for the site of Sarutaru. The excavations revealed a single cultural stratum of 1 m thickness with wheel turned pottery of fine kaolin clay. Exterior decoration include among others, cord-impressions on some of the vessels from shoulder to the base. Due to the occurrence of a shouldered celt among the pottery, Rao assigned the site to the Neolithic period. While going through with the details of the excavated material, it is difficult to accept the site as that of neolithic period because it has been observed at many sites that neolithic celts survived as late as 7th century CE and afterwards.

MANIPUR

Manipur is another adjoining state which has been explored and a few sites have been put to excavations. The excavated sites are Nongpok Keithelmanbi, Napachik while the sites of Laimanai and Phunan have been explored. A good number of ground and polished stone tools and pottery (Fig. 8) have also been collected as stray finds in exploration.

NONGPOK KEITHelmanbi

The site of Nongpok Keithelmanbi (Singh 1993) is located on the top of a flattened hill range which projects from the main mountain range towards the end up to the Thoubal river valley. A trial trench dug in 1983 could unearth three cultural sequences in a 74 cm thick slope deposit of fissured clayey loam. A charcoal sample (BS-523) from the corded ware stratum has been dated to 4,460 ± 120 year B.P. No stone artifacts were recovered from the excavation. However two celts, one unfinished made on fine sandstone pebble by flaking at one end on both surfaces with traces of grinding to produce the edge and one pointed butt type of ground celt, were collected from other localities of Nongpok Keithelmanbi area.
The pottery at the site of Nongpok Keithelmanbi (Fig. 11) is mostly the corded ware overlying the Hoabinhian stratum in the cultural sequence. This ill-fired and handmade pottery is heavily weathered and in many cases the corded surface is also eroded. The cord-marks are found in the form of linear and criss-cross patterns. The pottery is made of fine clay and tempered with sand and a few quartz particles. Fine sands were used as tempering material for the plain pottery. The colour of the potsherds includes various potsherds of red and brown, of which light red and reddish brown are the dominant colours. In thickness, the potsherds ranges from 2 to 8 mm, the common being 4 to 5 mm. From the rim fragments, the vessel appears to be shallow bowls with flatly carved base and globular pot with constricted neck.

**NAPACHIK**

The Napachik (Singh 1993) site, discovered in 1981 is a small hillock located on the right bank of the Manipur river at Wangu village, Bishnupur district. A trench measuring 4×2 sq m was dug at the southwestern slope and another trench measuring 5×2 sq m was dug in 1985 at the eastern foothill (Fig. 12). The dominant cultural material collected from the excavations are the potsherds decorated with cord-marks.
Fig. 12: Stratigraphy of Napachik excavation 1985 (after Singh 1997: 68)

Fig. 13: Pottery from excavation at Napachik, Manipur (after Singh 1993)
(Fig. 13) and tripod legs (Fig. 14) in association with pebble and flake tools as well as ground celts. The cord-marks are similar to the ones found at the site of Phunan. Some of the flake tools are very small and resemble non-geometric microliths. Besides, a large number of crystallized quartz with tiny scars at the tip and side, probably for certain uses, and waste flakes are also found in the excavation. The lithic artifacts of the Napachik site include: 3 pebble tools, 51 flake tools, 21 flakes, 27 cores, 7 ground celts and 7 grinding stones. Neolithic celts of triangular variety have almost circular or oval median cross-section. In manufacturing these neoliths, grinding, pecking and grinding techniques were employed.

The lithic artifacts from Laimanai site of Manipur are made of sandstone by applying chipping and grounding techniques. These include triangular hoe blade, small chisels with gouged edge and small trapezoidal celt. In cross-sections the tools have oval and rectangular forms. Tripod legs are also found at the site of Laimanai (Fig. 15).

The tripod wares characterize the ceramic industry of the Napachik site of Manipur. The pottery varieties are 748 pieces of plain ware, 893 pieces of cord-marked ware, 4 pieces of ring footed ware, 64 pieces of tripod legs ware,
etc. The pottery is handmade, fragmentary and fired under low temperature. Decoration is done by beating with cord-wrapped paddle. Most of the potsherds are of fine texture and tempered with sand, vegetables or powdered charcoal. The tripod legs also are mostly reddish brown in colour, a few are grey and dark grey. The legs are solid and made separately. The tripod legs are either long or short. The long legs have conical shape, while the short legs have flat, circular or tapering body with either a nob or flat slanding top to facilitate in lutting.

This three legged pottery has also been found in a burial at Ban Kao, a small inland settlement in Thailand, datable to 2000 BCE (Fig. 16). These pots where extensively used as reported from many sites in western Thailand and also as far as Malaysia (Bahn 2002: 112). This type of pottery has been also reported from the late levels of Lungshanoid culture in South China which is different from the classical Lung-shan cultures dominated by several basic forms namely ting tripod with solid legs and tou with cut-out ring feet and kui type jars etc (Fig. 17). In the beginning, it is handmade but evidence of potter’s wheel has been also noticed towards the end (Chang 1977: 174-180).

Among the tripod legs of Napachik, there is a solid flat leg that resembles the ring tripod type of the late Neolithic of South China (Singh 1993). It could be also interpreted that the region of Manipur possibly worked as the meeting place of the new neolithic impulses from the adjoining region of Southeast Asia.
MEGHALAYA

Garo Hills of Meghalaya could draw the foremost importance due to the discovery of the largest number of prehistoric sites and artifacts (Fig. 18 & 19). Even though the area was known for the presence of Stone Age artifacts in the pre-independence era (Walker 1931), systematic explorations were initiated by researchers (IAR 1963-64) from Gauhati University only during 1963-64. Continuous explorations in Garo Hills have brought to light several sites bearing Neolithic stone implements and pottery. D.K. Medhi (1980, 1990) studied the geological and the geo-morphological aspect of the sites of Garo Hills which reveals that the tools are not found in a stratified context, and the ground and chipped tools are found together. The site of Selbalgiri 2 was brought under excavation.

Selbalgiri 2

M.C. Goswami and T.C. Sharma (IAR 1967-68) collected a good number of artifacts from Selbalgiri 2 and a small trench, measuring 7.7 × 3.7 m was laid to ascertain the stratigraphical sequence of the implementiferous strata. The tentative stratigraphy of the excavation is as follows:

**Layer I:** 22 cm thick, composed of reddish earth mixed with a small quantity of quartz gravel; yielded 6 stone axes, both ground and chipped, 1 scraper and a large number of potsherds

**Layer II:** 20 cm thick, reddish brown in colour containing large number of quartz gravel; and obtained a core, four hammers and several small flakes, besides pottery

**Layer III:** 35 cm thick yellowish in colour bearing less gravel and found numerous microliths, both geometric and non-geometric, with pottery

The pottery from the sites of central and the northern parts of the Garo Hills are handmade and are predominantly grey in
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colour. Impure clay, tempered with quartz grits, was used in manufacturing the pottery (IAR 1966-67). The pottery collected from the excavation at Selbalgiri 2 (IAR 1967-68) was handmade, coarse and gritty in fabric and grey, grey-brown and dull brown in colour, with very rough texture due to the presence of quartz grits in the clay. No decoration could be detected on the potsherds. The pottery found on the surface was relatively thicker and less gritty.

PYNTHORLANGTEIN

L.S. Rao (IAR 1992-93), with his colleagues of the Prehistory Branch of the Archaeological Survey of India took a trial trench measuring 2 × 1 m at Pynthorlangtein (25° 22’ 26’’; 92° 06’ 07’’)) in Jowai Tehsil, with a view to ascertain the nature of the habitational deposit during 1992-93. The trial trench taken up at the highest point of the mound yielded a cultural deposit of 1 m comprising Neolithic cultural milieu (Fig. 20). The tools comprised adzes, axes, chisels, points, blades, scrapers, polishers, penknife, flake-blanks, cores and flakes. Majority of the celts are chipped and a few are partly ground (Fig. 21 & 22). Besides the lithic artifacts, a few potsherds of handmade, coarse red ware pottery with cord-impression (Fig. 23) were collected at a depth of 60-80 cm. Some Neolithic stray tools were also collected from Riat Turein of Jaintia Hills and Rongchugiri of West Garo Hills by them. The Neolithic factory site of Pynthorlangtein (Taher and Rao 2005) did not yield any shouldered celt, a common type of artifacts invariably associated with the Neolithic sites.
Recent explorations carried out by M. Mitri (2005) have yielded neolithic stone artifacts and pottery from Sohpet Bneng Hill of Ri-Bhoi district in Meghalaya. On the basis of the artifacts and the raw material used, he argues that “the people who arrived in the Khasi and Jaintia Hills had already equipped themselves with Neolithic technology which they brought of Northeast India.
from outside” (Mitri 2009: 75). Pottery found at the sites is mostly handmade, fired in low temperature, and has cord-impressions, a common characteristic feature of Neolithic pottery of Northeast India. He suggests that the northern part of the Ri-Bhoi region along the border of Karbi Anglong district of Assam was the entry point to the Khasi and Jaintia Hills for the Neolithic dwellers and the “Neolithic elements of this region are the direct offshoot of the outliner Neolithic from Cachar Hills and Karbi Anglong region” (Mitri 2009: 84).

**NAGALAND**

Nagaland is another area where neolithic artifacts are recorded since long. V. Nienu (1974) has reported the site of Chungliyimati located at a distance of 8 km from the Chare Administrative Outpost from which stone bowls, pestles, grinding stones, balls, hammers, querns, mullers, whorls, knives, handaxes, scrapers, cores, flakes, terracotta and stone smoking pipes were recovered. The Department of Culture, Government of Nagaland also collected a few Neolithic stone celts and terracotta objects from Chungliyimati and Changsang (IAR 1980-81: 84). Later explorations at this site under the direction of T.C. Sharma led to the discovery of polished neolithic celts of shouldered variety, pottery, grinding stones, stone rubbers, pestles, stone earrings, whorls made of stone, etc. The coarse variety, ill-fired handmade pottery from the site, were made by beater and paddle method due to which grooved beater marks are visible on the surface (IAR 1991-92: 83). The site of Chungliyimati was put to excavation recently.

A.K. Sharma (1996) collected some stone artifacts from the areas like Rokimi, Karami, Siromi, Lazimi, Itumi, Lokhimi, Sachema and Kigwema which are presently inhabited by the Sema and Lotha Nagas. The raw materials used are greenstone, a variety of diorite, shale, slate, sandstone and jadeite. As greenstone is a fine grained tough rock, not landing to flaking, the tools are shaped by pecking and the edges are prepared by grinding. As jadeite is not available locally, probability remains that these were obtained from Upper Burma and South China. The common tool type is the rounded shouldered to quasi-tanged axes, similar to the pointed butt axe of South India.

**CHUNGLIYIMATI**

Archaeological excavations at Chungliyimati carried out by a team of the Anthropological Society of Nagaland under the aegis of Department of Art and Culture of the Government of Nagaland, headed by Tiatoshi Jamir of the Nagaland University, have revealed finished and unfinished celts of sandstone and spillite and numerous earth cut storage pits. Besides, buff coloured wheel-made pottery, Ambarni ware, beads of glass, tile, jade, agate, amethyst, carnelian and iron were also recovered indicating inter-regional trade network. Archaeo-botanical remains include *Oryza nivara*, *Oryza rufipogon*, *Oryza sativa*, Siteria sp., *Triticum aestivum*, and *Hordeum vulgare*. The structures at the
site indicate that the houses faced the east with three distinct plans such as roughly rectangular with a frontal semi circular apse, pentagonal plan and an oblong shaped plan having a tapering front. Radiometric samples analyzed by Institute of Physics, Bhubaneshwar, and Birbal Sahni Institute of Paleobotany, Lucknow, assigned a time bracket ranging from 980 CE to 1647 CE for the site. Considering the time bracket, the excavators have assigned the site to post-Neolithic period. Investigations of other Naga ancestral sites have reported remains of cultivated rice and millet, Bos indicus, Bos frontalis, Bubalus bubalis, Sus scrofa, cervus, jungle fowl, barking deer and wild boar. The radiometric samples analysed by Beta Analytic Inc., Miami, Florida, have provided a time bracket of 50 BCE to 1600 CE for these sites (Jamir 2011: 41-44).

Mention be made about another excavation carried out at a cave Ranyak khen (RYK) at Mimi which has yielded edge-grinding tools of serpentinite and limestone made from river pebbles, a few hammer stones, disc shaped scraper tools and bone tools and cord-marked pottery besides a human burial. There appears no evidence of animal domestication and agriculture. Considering the archaeological data, the excavator has the assigned the site to early pre-Neolithic context (Jamir 2012). This new path-breaking study led by Tiatoshi Jamir can be considered as first of its kind in entire Northeast India as far as multidisciplinary approach is concerned.

WEST BENGAL

The neolithic celts and ring-stones were reported from the western upland in association with microlithic assemblage on the surface, especially in the valleys of Tarafeni and Bhairabanki. Mention may also be made about the discovery of neolithic artifacts from the foothill regions of Susunia along the banks of Gandheswari and its tributaries (Fig. 24 & 25). From the banks of Subarnarekha in the district of Midnapur on the border of Mayurbhanj in Orissa several Neolithic tools such as adzes, splayed axes, shouldered celts, bar celts, chisels and

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Fig. 24: Surface collection from Susunia (after Chattopadhyaya et al. 2005)

Fig. 25: Surface collection from Subarnarekha (after Chattopadhyaya et al. 2005)
mace-heads were found. From Darjeeling-Kalimpong area (Fig. 26), neolithic celts were also reported as early as 1904 from hill-slopes on the west bank of Tista river (Chattopadhyaya et al. 2005: 72-73).

**PANDU RAJAR DHIBI**

In the excavations at Pandu Rajar Dhibi in the lowest level (Period I), a few neolithic ground stone tools (Fig. 27), bone tools and microliths along with a handmade grey ware with rice husk impressions, wheel-made painted red pottery and limited quantity of black-and-red ware were encountered. Their date has been assigned to the middle of the 2nd millennium BCE (IAR 1964-65).

**TAMLUK**

The neolithic artifacts along with an ill-fired pottery were also reported in the lower most level at Tamluk in the coastal region of West Bengal.

In West Bengal, neolithic celts have been reported from different areas; however, defining the neolithic in the state is still a problem (Chattopadhyaya et al. 2005: 72-73, Ghosh 1989: 41). Celts and ring stones are widely recorded without much details of the chronological position. In northern Bengal, ground and polished stone artifacts have
been reported from Susunia hill, Midnapore and Purulia area. Excavations at several sites have yielded Neolithic celts in Chacolithic context; i.e. Bharatpur, Haraipur (IAR 1964-5: 46), Pandu Rajar Dhibi (IAR 1960-1: 67, IAR 1962-3: 43, 1963-4: 61, 1964-5: 48, Das Gupta 1964), Tamluk (IAR 1954-5: 19) in association with ceramic industry. Hence, mere association of neolithic polished artifacts can not be considered as traits to designate these sites as pure “neolithic”, as these kinds of artifacts are not uncommon even in early Historical/Medieval sites. Datta (1992) has discussed in details the neolithic artifacts of West Bengal found in different context.

**ORISSA**

Explorations conducted in different parts of Orissa have yielded several neolithic sites and a few of them have been excavated, which placed the neolithic culture of these areas in a chrono-stratigraphical position (Fig. 28). The excavations carried out at Kuchai, Baidipur and Shankarjang (Dhenkanal district) confirmed neolithic celts in association with a coarse grit-tempered red ware. Behera (2000) has extensively explored the Bonaigarh area and located several celt-manufacturing localities and a few sites associated with celts and ceramics. The site of Sulabhdihi must have served as a large scale celt manufacturing centre in the area. Trial trench at the site of Bargaon on the left bank of river Brahmani has revealed a habitational deposit of about 140 cm divisible in to three layers based on cultural material of which the lowest level provides indication of neolithic occupation. Explorations conducted by Basa et al. (2000) in Pallahara area of central Orissa have brought to light neolithic stone artefacts in association with coarse red ware and black-and-red ware.

**KUCHAI**

Surface exploration at the site of Kuchai during the 1950s has yielded typical ground.
Explorations conducted at the site of Golbai Sasan revealed neolithic celts and bone pieces along with Chalcolithic pottery. However, in the excavation, a sequence of three periods was worked out. Period I revealed a clayey deposit of more than a meter and found separated from the Chalcolithic deposit of the succeeding period IIA. In excavation, no stone or bone tools were found in this trench except two pieces of bone with working marks and a handmade pottery showing cord and reed impressions which appears to be made on a slow wheel or turned table techniques. The pots were mostly vases in dull red and grey wares. The neolithic artifacts were found in exploration and one of them, a shouldered celt was reported from mid level of the Chalcolithic deposit identified as period IIA (Fig. 29). The last period IIB has been bracketed with Iron age (Sinha 2000).

**STONE IMPLEMENTS**

Stone implements like axes including a shouldered adze. Thapar during 1961-2 started excavation revealing a 40 to 45 cm of clayey deposit of neolithic culture in association with a coarse grit-tempered red ware, sometimes also slipped and showing in addition incised or finger-tip decoration. The stone industry includes ground stone axes of butt or pointed-end variety, chisels, mace-heads, pounders and grinding stones. From this deposit were also recorded microliths of non-geometric variety represented by blades, points, lunates and various types of scrapers without any evidence of pottery. The time gap between these two levels i.e. microliths and neolithic remains to be ascertained.

This level appears to have resonantly connected with the similar levels noticed at neolithic sites in Bihar (IAR 1961-2: 35).

**GOLBAI SASAN**

Stray neolithic finds have been recorded at different region of Bihar and a few of the sites have been excavated. Sites like Taradih and Maner are located in the alluvial tract and Senuwar lies in the vicinity of Kaimur foothills. The discovery of stone bead, neolithic celt, bone arrowhead and point and microliths etc. suggest similar cultural development at the sites of Chirand, Taradih and Senuwar (Narayan 1996).
CHIRAND

The site of Chirand in Bihar (IAR 1962-3, 1963-4, 1964-5, 1968-9, 7969-70, 1970-1, 1971-2, Verma 1970-1) was excavated by the Directorate of Archaeology and Museums, Bihar and revealed five broad cultural period beginning with neolithic till the late historical period. Period I represents a full-fledged neolithic culture characterized mainly by bone tools and decorated pots, besides other neolithic artifacts. Bone and antler implements are the characteristics of Chirand. Bone ornaments are represented by pendants, ear rings, bangles of ivory and tortoise bone, discs and combs. The neoliths include celts, hammers, pestles, querns, balls, etc., usually made of quartzite, basalt and granite. According to the excavators, the microliths characterized by parallel-sided blades, scrapers, arrowheads, serrated points, notched blades, points, lunates, borers and a few geometric microliths generally made of chalcedony, chert, agate, jasper, etc. were also a part of neolithic complex. There is predominance of red ware and lesser frequency of grey, black and black-and-red wares in this period.

The structural remains of the late Neolithic level include a circular floor of about 4 m in diameter, a series of open hearths, a few post-holes near the floor and a few burnt chunks of clay with reed or bamboo impression. There are remains of rice, wheat, barley, mung and masur in a charred condition and a few burnt clay pieces with paddy-husk impression besides bones of animals, birds, fish etc. A relative date of c. 2000 BCE or earlier beginning at this site may be assigned to the neolithic level as the next preceding level Chalcolithic has been dated to 1950 BCE by radiocarbon method.

SENUWAR

Excavations at the site of Senuwar by the Banaras Hindu University have recorded four cultural periods from neolithic onwards till the Kushana period. Period I has yielded polished stone axes, hammers, rubber stones, pestles, sling balls, sharpeners, discs, beads of agate, chalcedony, faience and steatite besides pottery (Fig. 30). The other lithic assemblage consisted of marginally retouched bladelets, partly backed bladelets, flakes, blades and cores of chalcedony and chert. The bone tools are comprised of borer, point, chisel and arrow-head, both socketed and tanged. Archaeo-botanical investigations have provided evidence of rice (Oryza sativa), barley (Hordeum vulgare), dwarf wheat (Triticum sphaero coccum), bread wheat (T. aestivum), sorghum millet or jowar (Sorghum bicolor), chickpea (Cicer arietinum), green gram or mung (Vigna radiata), field pea (Pisum arvense), lentil (Lens culinaris), horse gram (Dollhos biflorus), grass pea (Lathyrus sativus), oil seeds belonging to sesame or til (Sesamum indicum) and linseed (Linum usitatissimum) (Singh 1988-89).

TARADIH

Excavations at the site of Taradih near Bodh-Gaya in the flood plains of the river Phalgu by Ajit Kumar Prasad have revealed
Fig. 30: Cord-impressed pottery, period IA, Senuwar (after Singh 1995-96)

Fig. 31: Cord-impressed and Rusticated ware, Mahagara (after Sharma and Mandal 1980)

Fig. 32: Neoliths from Mahagara (after Sharma and Mandal 1980)
Fig. 33: Microliths from Mahagara (after Sharma and Mandal 1980)

Fig. 34: Cord-impressed pottery, Koldihwa (after Sharma and Mandal 1980)

Fig. 35: Microliths from Koldihwa (after Sharma and Mandal 1980)
neolithic cultural material at the lowest level which has been subvivided in the Phase A and B on the basis of ceramics. Phase A is characterised by handmade pottery of red ware, burnished red ware, cord-impressed ware and rusticated ware. The burnt clay pieces with reed impression indicate construction of house of wattle-and-daub nature. Other features include neolithic tools, microliths and bone tool. Besides continuation of the pottery of this phase, burnished grey ware appears in Phase B along with neolithic tools, microliths, bone tools, terracotta objects, stone beads, carbonised grains, bones of domestic as well as wild animals such as cattle, goat, pigs, buffalo, sheep, deer and stag. Carbonised grains suggest growing of crops like rice, wheat, barley, lentil etc. (Prasad 1989).

Among the division of the Neolithic cultures of India recognised by Thapar (1985), the division of Northern Bihar or Mid-eastern district Saran and Central-eastern covering Chotanagpur Plateau with its peni-plains extending in west Bengal and Orissa need more detailed discussion while addressing the neolithic situation of Northeast India as these regions are geographically situated adjoining to our study area. The sites from mid-Ganga plain namely Lahuradewa, Jhusi, Hetappati, Sahgaura, Imlidih Khurd, Dhuriapar, Bhanudih etc. and from Vindhyan hills, the sites like Tokwa, Mahagara (Fig. 31, 32 & 33), Koldihwa (Fig. 34 & 35), Pachoh, have been also excavated but we found it difficult to connect the neolithic culture of Northeast India except the cord-impressed pottery (Hazarika 2012a). Further field work is required to address this issue by identifying the food plants, domestications of animals and the economy of neolithic people. However, the issue of connection of microlithic using people and neolithic ones in Bihar, Vindhyan hills, West Bengal and Orissa appears to be a common finding in the lowest level, whereas in Northeast except at Garo hills and Napachik, in no other areas have microliths been found (Table 1 & 2).
**Table 1:** Comparative data of neolithic sites from Eastern India with details of the material remains

<table>
<thead>
<tr>
<th>Region</th>
<th>Site</th>
<th>Tool types &amp; other antiquities</th>
<th>Pottery</th>
<th>Structures</th>
<th>Plants</th>
<th>Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arunachal Pradesh</td>
<td>Parsi-Parlo</td>
<td>Pecked and ground stone tool</td>
<td>Square-grid, honeycomb (web) and beater-impressed pottery</td>
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<td></td>
<td>Daporijo</td>
<td>Neolithic axe</td>
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<tr>
<td>Assam</td>
<td>Daojali</td>
<td>Edged tool, grinding stones, querns, mullers</td>
<td>Cord-impressed variety, stamped dull red variety, and brick red variety</td>
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<td></td>
<td>Hading</td>
<td>Ground stone celts</td>
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<tr>
<td>Sarutaru</td>
<td>Ground stone celts</td>
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<tr>
<td>Marakdola</td>
<td>Shouldered celt</td>
<td>Wheel turned pottery of fine kaolin clay</td>
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<tr>
<td>Manipur</td>
<td>Nongpok Keithelmanbi</td>
<td>No stone tools from excavation, but ground celt from adjoining areas</td>
<td>Ill-fired and handmade pottery with corded surface in linear and criss-cross patterns</td>
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<tr>
<td>Napachik</td>
<td>Pebble and flake tools, ground celts, some of the flake tools are very small and resemble non-geometric microliths, grinding stones</td>
<td>Plain ware, cord-marked ware, ring footed ware, tripod legs ware</td>
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<tr>
<td>Meghalaya</td>
<td>Selbalgiri 2</td>
<td>Ground and chipped stone axe, scraper, microliths, both geometric and non-geometric</td>
<td>Handmade grey colour pottery</td>
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<tr>
<td>Pynthorlangtein</td>
<td>Adzes, axes, chisels, points, blades, scrapers, polishers, penknife, flake-blanks, cores and flakes</td>
<td>Coarse red ware pottery with cord-impression</td>
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<tr>
<td>West Bengal</td>
<td>Pandu Rajar Dhibi</td>
<td>Ground stone tools, bone tools and microliths</td>
<td>Handmade grey ware with rice husk impressions, wheel-made painted red pottery and limited quantity of black-and-red ware were</td>
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<tr>
<td>Region</td>
<td>Site</td>
<td>Tool types &amp; other antiquities</td>
<td>Pottery</td>
<td>Structures</td>
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<tr>
<td>Orissa</td>
<td>Kuchai</td>
<td>Ground stone implements like axes including a shouldered adze from exploration and ground stone axes of butt or pointed-end variety, chisels, mace-heads, pounders and grinding stones, microliths of non-geometric variety represented by blades, points, lunates and various types of scrapers from lower level of excavation</td>
<td>Coarse grit-tempered red ware, sometimes also slipped and showing in addition incised or finger-tip decoration</td>
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<td></td>
<td>Golbai Sasan</td>
<td>Neolithic celts and bone pieces in exploration</td>
<td>Handmade pottery of dull red and grey wares, showing cord and reed impressions</td>
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<tr>
<td>Bihar</td>
<td>Chirand</td>
<td>Neoliths include celts, hammers, pestles, querns, bone tools, microliths characterized by parallel-sided blades, scrapers, arrowheads, serrated points, notched blades, points, lunates, borers</td>
<td>Red ware and lesser frequency of grey, black and black-and-red wares</td>
<td>Circular floor of about 4 m in diameter, a series of open hearths, a few post-holes near the floor and a few burnt chunks of clay with reed or bamboo impression</td>
<td>Rice, wheat, barley, mung and masur</td>
<td>Bones of animals, birds, fish</td>
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<td></td>
<td>Senuwar</td>
<td>Polished stone axes, hammers, rubber stones, pestles, sling balls, sharpeners, discs, beads of agate, chalcedony, faience and steatite, retouched bladelets, partly backed bladelets, flakes, blades and cores of chalcedony and chert, bone tools comprised of borer, point, chisel and arrow-head, both socketed and tanged</td>
<td></td>
<td>Rice, barley, dwarf wheat, bread wheat, sorghum, millet or jowar, chickpea, green gram or mung, field pea, lentil, horse gram, grass pea, oil seeds belonging to sesame or til and linseed</td>
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<td>Region</td>
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<tr>
<td>Uttar Pradesh</td>
<td>Taradih</td>
<td>Neolithic tools, microliths and bone tool</td>
<td>Handmade pottery of red ware, burnished red ware, cord-impressed ware</td>
<td>Burnt clay pieces with reed impression indicate construction of house of</td>
<td>Carbonised grains of rice, wheat, barley,</td>
<td>Bones of domestic as well as wild animals</td>
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<td>wattle-and-daub nature</td>
<td>lentil</td>
<td>such as cattle, goat, pigs, buffalo, sheep,</td>
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<td>Koldihawa</td>
<td>Rounded celts with flat sides and rectangular cross-section and microliths, parallel-sided</td>
<td>Cored and incised ware of thick fabric, plain red ware and</td>
<td>Burnt clay pieces with wattle and daub impressions indicates</td>
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<td></td>
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<td>blades, blunted blades and scrapers, the microlithic artifacts</td>
<td>ill-fired crude black-and-red ware, rice husk is embedded in the clay</td>
<td>construction of huts</td>
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<td>in some of the potsherds</td>
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<td></td>
<td>Mahagara</td>
<td>Microliths, consisting retouched blades, backed blades, lunates, scrapers, borers,</td>
<td>Corded-impressed, rusticated, burned red, and burnished black ware</td>
<td>Hutments, the floors are circular or oval on plan, burnt clay lumps with</td>
<td>Rice husk and rice grain in pottery as</td>
<td>cattle (sheep/goat, deer horse tortoise</td>
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<td></td>
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<td>triangles, trapeze etc; rounded celts and bone arrowheads, querns, mullers, hammers,</td>
<td></td>
<td>wattle-and-daub impression indicates the use of mud plaster on the screen</td>
<td>degraissant, domestic rice in charred</td>
<td>wild boar and fish</td>
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<td>sling-balls, sharpeners, ring-stones, perforated shell objects (ornaments), clay,</td>
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<td>walls of these huts</td>
<td>condition</td>
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<td>dabber, terracotta beads and perforated pottery discs</td>
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<td></td>
<td>Pachoh</td>
<td>Ring-stones, rounded celts and microliths consisting of fluted cores, retouched blades, backed</td>
<td></td>
<td>Light burnt clay lumps</td>
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<td></td>
<td>blades, scrapers and points</td>
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<td>Region</td>
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<td>Tool types &amp; other antiquities</td>
<td>Pottery</td>
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<tr>
<td>Uttar Pradesh</td>
<td>Jhusi</td>
<td>Microlithics include various types of blades, scrapers, triangles, trapeze, points, drills and lunates made of chart, chalcedony, carnelian and quartz, micro disc beads and cylindrical beads made of paste material like steatite, bone tools comprised of simple arrowheads</td>
<td>Handmade cord-impressed ware, rusticated bone, burnished red ware and crude black-and-red ware</td>
<td>Circular huts having walls of bamboo and reeds</td>
<td>Barley, jowar, bread wheat, rice, lentil, pea, grass pea, horse gram and black gram together with fruit remains of awala, grapes and ber and oil-seeds comprising til or seasame</td>
<td>Cattle, sheep, goat, boar, barasinga, etc. fish, turtle and birds</td>
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<td>Domestic animals such as cattle and goat, wild mammal such as gaur, nilgai and black-buck, birds, fish and molluscan species</td>
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<td></td>
<td>Hetapatti</td>
<td></td>
<td>Handmade cord-impressed ware, rusticated ware, ordinary red ware with jar, shallow and deep bowls and basins</td>
<td>Hut floors with burnt clay lumps with reed marks suggest wattle-and-daub structures</td>
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<td></td>
<td>Sohgaura</td>
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<td>Cord-impressed ware made of gritty clay mixed with rice husk, straw, rusticated ware, plain red ware</td>
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<tr>
<td>Location</td>
<td>Features</td>
<td>Finds</td>
<td>Notes</td>
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<tr>
<td>Lahuradewa</td>
<td><strong>Period IA</strong> - Coarse variety of hand-made red ware and black-and-red ware industry often displaying cord-impressions on exterior surface</td>
<td>Wattle-and-daub dwelling indicated by post-hole and burnt mud clots with reed-marks</td>
<td>Wild and domestic variety of rice and foxtail grass</td>
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<td><strong>Period IB</strong> - Appearance of some new shapes in pottery such as beaker, perforated vessel, spouted vessel and dish or bowl-on-stand, continuation of Black-and-red ware terracotta and stone beads, and a few micro steatite beads</td>
<td></td>
<td>Charred and un-charred bones showed cut marks</td>
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<tr>
<td>Imlidih Khurd</td>
<td>Micro beads of steatite, other beads of terracotta, agate and faience, bone points and pottery discs</td>
<td>Handmade cord-impressed pottery, plain red ware</td>
<td>Rice, barley, wheat, jowar, millet and bajra (pearl millet), lentil, field pea, grass pea and green gram or mung, sesame, til, jujube, anwla and grapes</td>
<td></td>
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<tr>
<td>Bhunadih</td>
<td>A few micro beads of steatite, terracotta and pottery discs</td>
<td>Cord-impressed red ware, plain red ware with spouted vessels, beakers, and vases</td>
<td>Wattle-and-daub houses represented by burnt clay lumps bearing reed marks</td>
<td>Domestic cattle, sheep/goat and presumably pig and wild animals such as horned deer, canid, freshwater turtle, fish, and freshwater mollusc</td>
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</table>
Table 2: Comparative Data of neolithic sites from Eastern India including earliest evidence of agriculture

<table>
<thead>
<tr>
<th>Region</th>
<th>Site</th>
<th>Polished Axe</th>
<th>Microliths</th>
<th>Bone tool</th>
<th>Pestles, querns, ponderos</th>
<th>Pottery</th>
<th>Structures</th>
<th>Plants</th>
<th>Animals</th>
</tr>
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<tbody>
<tr>
<td>Arunachal Pradesh</td>
<td>Parsi-Parlo</td>
<td>√</td>
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<td>Assam</td>
<td>Duojali Hading</td>
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<td>Marakdola</td>
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<tr>
<td>Manipur</td>
<td>Nongpok Keithelmanbi</td>
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<td>Napachik</td>
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<tr>
<td>Meghalaya</td>
<td>Selbalgiri 2</td>
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<td>√</td>
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<td></td>
<td>Pynthorlangtein</td>
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<tr>
<td>West Bengal</td>
<td>Pandu Rajar Dhibi</td>
<td></td>
<td>√</td>
<td>√</td>
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<tr>
<td>Orissa</td>
<td>Kuchai</td>
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<td></td>
<td>Golbai Sasan</td>
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<tr>
<td>Middle Ganga Plain</td>
<td>Chirand</td>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
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<tr>
<td>(Bihar and Uttar Pradesh)</td>
<td>Senuwar</td>
<td></td>
<td>√</td>
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<td></td>
<td>Taradih</td>
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<td></td>
<td>Sohgaura</td>
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<td></td>
<td>Lahuradewa</td>
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<td></td>
<td>Jhusi</td>
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<td>Hetapatti</td>
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<td>Imlidih Khurd</td>
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<td>Bhunadih</td>
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<tr>
<td>Vindhyan Hills</td>
<td>Koldihawa</td>
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<td></td>
<td>Mahagara</td>
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<td>Pachoh</td>
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<td>Tokwa</td>
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</table>
Table 3: Some Important Radio-Carbon dates of Neolithic culture from Eastern India

<table>
<thead>
<tr>
<th>SL. N.</th>
<th>State</th>
<th>Site</th>
<th>Lab. N.</th>
<th>C14 Dates</th>
<th>Cal. Dates in BCE</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assam</td>
<td>Dibru valley</td>
<td>PRL 1234</td>
<td>2210 ± 140 BCE</td>
<td></td>
<td>Saikia 1988</td>
</tr>
<tr>
<td>2</td>
<td>Assam</td>
<td>Kanai Gaon Reserve</td>
<td></td>
<td>1440 ± 80 BP</td>
<td></td>
<td>IAR 1992-93: 118</td>
</tr>
<tr>
<td>3</td>
<td>Manipur</td>
<td>Nongpok Keithelmanbi</td>
<td></td>
<td>4,460 ± 120 years BP</td>
<td></td>
<td>Singh 1993</td>
</tr>
<tr>
<td>4</td>
<td>Manipur</td>
<td>Napachik</td>
<td></td>
<td>1450 BCE</td>
<td></td>
<td>Singh 1993</td>
</tr>
<tr>
<td>5</td>
<td>Tripura</td>
<td>Haora and Khowai river valley</td>
<td></td>
<td>1500 BCE</td>
<td></td>
<td>Ramesh and Rajagopalan 1999: 13-30</td>
</tr>
<tr>
<td>6</td>
<td>Bihar</td>
<td>Chirand</td>
<td>TF - 1035</td>
<td>1270 ± 105 BCE</td>
<td></td>
<td>Agrawal 1982: 271-72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1127</td>
<td>1375 ± 100 BCE</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1125</td>
<td>1515 ± 155 BCE</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1033</td>
<td>1540 ± 110 BCE</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1034</td>
<td>1570 ± 115 BCE</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1030</td>
<td>1580 ± 100 BCE</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1031</td>
<td>1675 ± 140 BCE</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TF - 1032</td>
<td>1755 ± 155 BCE</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>Mid Ganga Plan</td>
<td>Lahuradeva</td>
<td>BS - 1967</td>
<td>6290 ± 140 BP</td>
<td>5464, 5298, 5059 BCE</td>
<td>Tewari et. al. 2001-02: 55-56</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 1951</td>
<td>5320 ± 90 BP</td>
<td>4220, 4196, 4161 BCE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 1966</td>
<td>6290 ± 160 BP</td>
<td>5258 BCE</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>ERL - 6442</td>
<td></td>
<td>6442 – 6376 BCE</td>
<td>(AMS)</td>
</tr>
<tr>
<td>8</td>
<td>Mid Ganga Plan</td>
<td>Jhusi</td>
<td>BS - 2526</td>
<td></td>
<td>7477 BCE</td>
<td>Pal 2007-08: 277</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 2524</td>
<td></td>
<td>5837 BCE</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 2525</td>
<td></td>
<td>6196 BCE</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Vindhyan region</td>
<td>Koldihwa</td>
<td>PRL - 224</td>
<td>6570 ± 210 BCE</td>
<td></td>
<td>Sharma et. al. 1980: 199-200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PRL - 100</td>
<td>5440 ± 240 BCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PRL – 101</td>
<td>4530 ± 185 BCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Vindhyan region</td>
<td>Tokwa</td>
<td>BS - 2417</td>
<td></td>
<td>6591 BCE</td>
<td>Pal 2007-08: 277</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 2464</td>
<td></td>
<td>4797 BCE</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>BS - 2369</td>
<td></td>
<td>5976 BCE</td>
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</tr>
</tbody>
</table>

The above radio-metric dates from Northeast India provide a time range bracket from circa 2500 – 1500 BCE whereas the dates from Vindhyas and mid Ganga plains pushed the antiquity to the middle of the 7th – 6th millennium BCE which are at quite variance with Northeast. In fact, more data is required to understand the source of neolithic inspiration because till date there appears to be no direct connection either from Yangtze valley or an indigenous transformation from local hunter-gatherer stage.
DISCUSSION

From the above survey, it appears that in the adjoining region of Northeast India, the areas of North Bengal, North Bihar and mid Ganga plain and Vindhyan region, there we find flourishing early farming cultures of Neolithic/Chalcolithic stature and the recent archaeo-botanical investigations from Lahuradeva pushed back the antiquity of rice on the basis of two conventional radiocarbon dates of wood charcoal to 6th – 5th millennium BCE (Tewari et al. 2008, Singh 2010) (Table 3). But there too is a problem to connect the archaeological material of such an early age; whether it is the continuation of Mesolithic avertedly evolved in the later period with food production or they adapted themselves the neolithic tradition from the regions which are still not satisfactorily explored or interpreted. The excavators have connected them with Period IA yielding red and black-and-red ware pottery bearing cord-pattern which is assigned with the neolithic in this region.

The survey of excavated sites of Northeast India suggests that most of the uplands yielding sites are located on the southern bank of the Brahmaputra river (Hazarika 2008a, 2008b and 2011). The cord or basket impressions on the exterior of the pot clearly suggest the neolithic folk were making basketry utensils. Shifting cultivation practiced by the present day tribal population residing in the hilly areas has been regarded as a continuation of Neolithic tradition (Sharma 1981: 50). A comparative study made by S.K. Roy (1981) on the Neolithic tools from Garo Hills and artifacts used in shifting cultivation reveals homogeneity in function of both these modern and ancient artifacts. The use-wear patterns of the present day as well as prehistoric artifacts suggest similar kinds of use. Similarly, Pratap (2000) has correlated the shifting cultivation system of the Paharias of Santal Paraganas with the archaeological record. Kingwell-Banham and Fuller (2012) suggests that shifting cultivation may have been a widespread economic system during the neolithic period, in both the Ganga valley and the Deccan plateau of South India. Against this background, a discussion on the shifting cultivation prevalent in Northeast India will be pertinent.

SHIFTING CULTIVATION

Slash and burn or shifting or Swidden practice of clearing forest for cultivation, locally known as jhum is the most common agricultural practice in Northeastern tropical hilly regions (Fig. 36). It is the reflection of ecological adaptation and is ideal for understanding man-environment relationship in high altitudes. This type of agriculture requires limited tools and equipment and entirely depends on climatic or environmental situation for which it can be considered as a very primitive agricultural practice. Sharma (1990) is of the opinion that some agricultural pattern similar to that of the shifting cultivation was prevalent during the Neolithic period in Northeast India. For most of the tribal people, this cultivation has been in vogue for centuries and still remains
a major land use practice, which provides a basis for subsistence farming, maintenance of cultural values and social stability for the people living in low population density (Aier and Changkija 2003: 367). On the basis of the technology and indirect archaeological data, shifting cultivation can be regarded as a distinct stage in the evolution of agriculture.
and modern land husbandry practice, a transitional stage between nomadic hunting-gathering and sedentary agriculture. The practice of shifting cultivation has evolved through the struggle of small human societies to supplement their hunting and food gathering in the forests by the then newly discovered technique of raising food crops by planting (Satapathy and Sarma 2002: 122-123).

This unique human ecological relationship in high altitude landscapes, first involves clearing of forest cover and vegetation on chosen hill slopes by cutting, slashing and subsequently burning the dried biomass, before the onset of the monsoon (Fig. 37). The ash from the burnt vegetation acts as fertilizer for the crops to be sown (Fig. 38). Digging sticks made of bamboo or simple iron hoes are used to prepare the soil for sowing. A variety of crops are sown at appropriate periods (Fig. 39). Inevitable loss of soil fertility after successive crops and topsoil denudation then compels shifting of cultivation to a new hill slope after two-three years; hence the epithet ‘shifting’ cultivation. Shifting of the jhum fields frequently necessitates shifting of the human settlements as well. This kind of agriculture does not require any machinery input and involvement of animals. Mixed cropping is one of the important aspects of this cultivation which provides alternatives, if a crop fails due to climatic, environment or any other factors. The whole process is done on a community basis. A variety of crops are presently grown in jhum land such as

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**Fig. 37:** Preparation of the *jhum* field by cutting, slashing and burning the dried biomass

**Fig. 38:** With digging sticks and simple hoe made of Iron and bamboo, seeds are sown in these *jhum* land

The practice of *jhum* has overwhelmingly influenced population mobility, material culture and settlement history among the many hill tribes of India’s Northeast and represents a unique human-environment relationship in high altitude landscapes which continues to adapt, evolve and define traditions among its practitioners. It has a special significance in the ethos of tribal societies and has great value in their social relationships, culture and mythical beliefs.

The shifting cultivation of Northeast India is a continuous process and survives till date in the hilly landscape along with the changed terrace cultivation especially in Arunachal Pradesh and Nagaland. The antiquity of lowland cultivation in the area is yet to be established; however, the emergence of urban societies has been recorded only from the fourth/fifth centuries CE in which lowland rice cultivation must have played a vital role. In this conjecture, it is suffice to state that from the end of neolithic to the beginning of historical period there is a cultural gap in the region which requires more sustained work in order to understand this “Dark Age” of the history of Northeast India. It may not be out of context to record that in Sri Lanka, the Mesolithic continued for a pretty long time till it was not taken over by the Iron Age. While discussing the early farmers, one must understand the difference of the population living in the hilly area and plains because the cultural development were open to plains but not to the hilly areas who were possibly living in isolation and this fact, one can substantiate with the present day analogy.

**ADJOINING AREAS OF NORTHEAST INDIA WITH CHINA AND OTHER SOUTHEAST ASIAN COUNTRIES**

To understand the neolithic material complex of Northeast India which is believed to be a larger part of South Chinese and Southeast Asian complex, one must understand the
neolithic chronology of both the above mentioned areas. It has been observed that the Chinese river civilisation like Yellow and Yangtze continued for a longer time and the role of copper and bronze made a very late intrusion in the life of common man and if one may see that in this part of Asia, cities developed very late whereas from Euphrates to Indus there were many fortified urban centres between 4th – 3rd millennium BCE.

Several cave sites of East Asia have yielded very early evidence of pottery since late Pleistocene period and the Jomon culture of Japan has provided a radiometric time bracket of 13,000-12,000 BCE for the beginning of pottery (Yasuda 2002: 119-142) and interestingly earliest pottery of southern China is comparable to these dates. Radio-metric dates suggest an emergence of pottery making technology in the southern China, the Japanese Isles, and Russian Far East during around 14,000 BP and 13,000 BP (Kuzmin and Kealley 2001) (Fig. 40). The southern part of China, particularly the Yangtze valley has been considered as one of the ‘primary’ centre for origin of a number of plants including rice, whereas the northern part of yellow river is favoured for millets such as Setaria indica and Panicum miliaceum. Rice domestication must have been during 4500-4000 BCE with pre-domestication beginning by 5500-5000 BCE (Fuller et al. 2008: 41).

Recent studies on the neolithic culture

![Fig. 40: Some important sites yielding early evidence of pottery in East Asia (The base map of East Asia is downloaded from www.wikipidia.com)](image-url)
suggest a distant past of early farming cultures in two different zones of Asia, West Asia and Monsoon Asia characterised by different domesticates such as wheat and barley in the West and rice and millet in the East, settlement and economy. For situating the neolithic context of Northeast India, a larger view of the emergence of early farming communities in two of the best studied regions is essential for a holistic understanding of the multi-directional cultural diffusion from these two regions and because of the process of domestication and agriculture also as they gave birth to some of the world’s oldest urban civilisation.

WEST ASIA

As already mentioned, the study of Neolithic culture in India started by the reporting of Neolithic celts, whereas other considerations like domestication of animals, agriculture and introduction of pottery are later phenomenon. In fact, towards the end of the Ice age and the beginning of Holocene especially in the region of Near East including northern part of Africa, especially Egypt, the Natufians which was a more widespread Mesolithic industry gave rise to incipient Neolithic way of life in the form of settlements by the people who had begun farming but not yet started to make pottery. The Natufians of southern Levant occupied the caves and the terraces in front of the caves whereas excavations have yielded clusters of round building made on stone foundations (Bar-Yosef 1998).

In the arly Natufian levels at the Abu Hureyra site, archaeo-botanical investigations have provided evidence of exploitation of wild plants such as wild barley, wild einkorn wheat and wild rye (Hillman 2000). In subsequent phase, during Pre-Pottery Neolithic A (PPNA) and Pre-Pottery Neolithic B (PPNB) the sites became more larger and the architecture got elaborated. The transition from round structures of PPNA to rectilinear structure of PPNB is best attested at Jericho and Jerf el Ahmar (Kuijt and Goring-Morris 2002). There is sizable amount of data clearly suggesting domestication of wheat and barley in the Near East during these cultural periods (Colledge 2001). Flannery, Binford and Braidwood provided a sort of composite cultural picture, a foundation of the beginning of food production in the Near East. This story is to be seen in other parts of Near East especially in Turkey and Iraq. This happening in the whole of the region around Caspian and adjoining region may have started somewhere from 10th millennium BCE (Fig. 41).

The important excavations in the Neolithic context although the aims were different conducted at Jericho, Catal Huyuk, Cayonu Tepesi, Can Hasan, Hacilar, Jarmo, Hassuna, Karim Shahir, the Kermanshah group provided a continuous sequence starting from pre-pottery Neolithic to the emergence of Chalcolithic culture and further cultural development in the area. To assess these earlier excavations the other works carried out at Abu Hureyra in north Syria and Ain Ghazal on the outskirts of
Oman, Gilgal in the Jordan valley, Grittile in southeastern Turkey, Umm Dabaghiyah in Iraq and Ganj Dareh in the Kangavar region of the central Zagros Highlands further provides the developmental stages and for example, the excavation at Ain Ghazal confirm a close cultural link with contemporary Jericho. Mentioned be also made about Abu Hureyra which starts with a Mesolithic settlement which was deserted as reoccupied by Aceramic Neolithic. It was perhaps the largest amongst all the archaic settlements in the Levant. The residents practised agriculture and their economy rested on cereals and pulses. They used a new variety of wheat called emmer (Moore 1983, Singh 1974).

**MONSOON ASIA**

While talking about West Asia, we should not forget Monsoon Asia, which is characterised by its temperature and wet climate which was ideal for the growth of forest and other representative features of monsoon Asia. Monsoon Asia covers a large area of the Asian continent such as India, southern foot of the Himalaya, Southeast Asia, south China east of Sichuan and Yunnan provinces.

Fig. 41: Farming began at these sites of West Asia between 11,000 to 7,000 BCE (after Bahn 2002: 57)
in the eastern margin of the Tibetan Plateau, north China east of the Shianxi and Liaoning provinces located east of the Dahinganling mountains and the Pacific coastal regions south of Sakhalin where rice is grown as a dominant representative crop besides others like foxtail millet, broomcorn millet, sorghum etc. The areas of Ganges, Yangtze and Mekong flowing in Monsoon Asia have yielded evidence of ancient civilisations characterised by rice cultivation, hunting and fishing (Yasuda 2004: 12-19). From about 5000 BCE, settled agricultural communities based on cultivation of rice spread slowly through Yangtze river system to different parts of Southeast Asia including Northeast India (Fig. 42).

As seen that the comingling of agriculturist and pastoralist resulted in the population concentration in the great river valleys up to Indus whereas in north China the Yellow river civilisation and in south China, Yangtze river civilisation were also thriving and this process continued in Monsoon Asia whereas west Asia gave rise to great civilisations like Mesopotamian, Egyptian and Indus. The cultural traits of these civilisations have been freely noticed in the Persian Gulf and also on the eastern shore of the South Arabia and other Gulf countries like Oman and Bahrain.

In Monsoon Asia, in the eastern part

Fig. 42: From about 5000 BCE, settled agricultural communities based on cultivation of rice spread slowly through Yangtze river system (after Bahn 2002: 113)
of India including mid Ganga plain, it is noticed that cities came up not before the beginning of the first millennium BCE. What were the factors responsible for it? Was it entirely environmental or climatic is difficult to explain in the present academic scenario. It is suffice to suggest that more work is required in this direction to understand the origin of Neolithic in east India regarding the existence of skeletal remains of wild and domesticated animals and carbonised grains which are indicative of the process of transition from the food gathering to food producing economy as earlier excavations are silent on these vital issues. For this the field work in the adjoining areas/countries be taken up in a cultural programme either at the university level or at the national/international level.

While discussing the influence of East Asian Neolithic complex on the northeast Indian Neolithic through the eastern corridor of the Himalaya, it will be pertinent to address the Neolithic data from Kashmir in the foothills of western Himalaya which forms a distinct entity in the early agro-pastoral scenario of the Indian subcontinent. The recent excavations at the site of Kanishkapura (Kanispur) have provided invaluable cultural material as well as pushed back the antiquity of Kashmir Neolithic to the last quarter of the 4th millennium BCE. The discovery of emmer wheat (*Triticum dicoccum*) of west Asian origin at the site has shed light on the long distance connections of Neolithic farmers. The excavator of the site (Mani 2008: 235) believes that the Central Asian Neolithic tradition entered the Kashmir valley in the 2nd half of the 4th millennium BCE when the neolithic people resided in the western part of the valley around Kanishkapura and then moved towards central Kashmir somewhere between 2881 BCE and 2347 BCE and moved towards Gufkral in the south-eastern part of the valley.

Earlier excavations at the sites of Burzahom (IAR 1960-61 to 1970-71, Khazanchi 1977, Khazanchi and Dikshit 1980) have indicated strong connections with the East Asian Neolithic complex. Dikshit (1982) has opined the movement of integrated neolithic culture from the area of North China to Kashmir. There are several typological affinities of the Yang Shao phase with the Kashmir Neolithic in terms of structures, bone and stone tools. The stone knives-harvesters with perforation recorded in north and central China with Yang Shao and Lung Shan complex and Jomon phase of Japan and Korea along with other traits anticipates strong cultural connection between Kashmir, China and further east in the Monsoonal Asian context.

Interestingly, explorations in the Djangu area of north Sikkim in the Himalayan foothills have recorded typical harvesters in association with other Neolithic artifacts like celts with single or double perforation and adzes etc. (Fig. 43) suggesting affinities with south Chinese Neolithic complex (Sharma 1981, 1985). The Kashmir Neolithic has its own characteristics along with several borrowed Neolithic traits from adjoining regions (Thapar 1985: 41).
From the discussion, one can draw parallels in the tool typology but as far as the carbonised grains are concerned the Northeast Indian sites could not provide any substantial evidence. It may also be mentioned that the Northeast Indian sites are located mostly in the hilly areas whereas in the plains, archaeological chronology is considerably very late; 5th-6th century CE. But in the context of mid-Ganga plain, where most of the sites are in the plains especially near ox-bow lakes, carbonised grains have been found and also dated to an earlier period.

In the monsoon Asian context, the eastern part of India including mid Ganga plain has yielded a good number of sites with indication of early beginning of agriculture, especially based on rice. However, there is no concrete evidence of early agriculture in the Northeast India. As suggested earlier by many scholars that the neolithic of Northeast India has its genesis in South China which has evidence of early agriculture. Attention should be given to more detailed comparative studies of the typo-technology of the stone artefacts found in the region with south China and other Southeast Asian counties which show certain morphological similarities (Hazarika 2012b) (Fig. 44).

**CONCLUSION**

Fig. 43: Surface collection of neolithic perforated tools from North Sikkim (after Sharma 1996)

Fig. 44: Shouldered and bar celt from Southeast Asia (Displayed at the Museum of Indian Archaeological Society)
The presence of microliths, non-geometric and geometric especially in Vindhyan hills and also in mid-Ganga plain including West Bengal and Orissa appears to be forerunners of the emergence of neolithic culture in some parts of Eastern India whereas Northeast Indian neolithic culture was definitely in close connection with the northern Southeast Asian neolithic which was also a derivative of the south Chinese neolithic culture present in the Yangtze valley.

While dealing with the early farming cultures of Northeast India, it appears that the region can stand alone as a separate and distinct developmental case in the context of East Indian Neolithic tradition. The development of agriculture in this region could be considered keeping in view the geographical, temporal and cultural isolates. According to one group, it has been argued that in the area where food production is not based on the domestication of local or indigenous plants and animals, the farming tradition might have been imported from neighbouring areas where indigenous agriculture has been substantially recorded (Smith 2001: 204). The expansion of neolithic traits in the northeast part of India from the Yangtze corridor may not be direct but through other Southeast Asian neighbouring countries as the Northeast Indian Neolithic complex appears to be quite late as per the available radio-metric dates.

References


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