Neolithic-Chalcolithic Potteries of Eastern Uttar-Pradesh

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Eastern Uttar-Pradesh (23°51’ N. - 28°15’ N. and which 81° 31’ E – 81° 39’ E) which extends from Allahabad and Kaushambi districts of the province in the west to the Bihar-Bengal border in the east and from the Nepal tarai in the north, to the Baghelkhand region of Madhya Pradesh state in the South. The regions of eastern Uttar Pradesh covering parts or whole of the districts of Mirzapur, Sonbhadra, Sant Ravidas nagar, Varanasi, Allahabad, Kaushambi, Ballia, Gonda, Buhara, Shravasti, Bahrampur, Faizabad, Ambekdar Nagar, Sultanpur, Ghazipur, Jaunpur, Pratapgarh, Basti, Siddharth Nagar, Deoria, Kushinagar, Gorakhpur, Mahamarajganj, Chandauli, Mau and Azamgarh. The entire region may be divided into three distinct geographical units – The Ganga Plain, the Vindhya-Kaimur ranges and the Saryupar region. The eastern Uttar Pradesh has been the cradle of Indian Culture and civilization. It is the land associated with the story of Ramayana. The deductive portions of the Mahabharata are supposed to have got their final shape in this region. The area was the nerve centre of political, economic and religious upheavals of 6th century B.C. It witnessed the emergence of second urbanization in India. Mahavira and Gautam Buddha were not only born in this region, they also delivered their sermons to the people of this area. From 6th Century B.C. onward, the eastern Uttar-Pradesh played a crucial role in the shaping of the political history of India. The changing climatic conditions during early and middle phases of Holocene in the eastern Uttar-Pradesh played a significant role in the evolution of early farming cultures. The excavations and explorations conducted during the last four decades by University of Allahabad, Banaras Hindu University, Deen Dayal Upadhyaya University Gorakhpur, University of Patna, U.P. State Archaeology Department, have furnished a complete cultural sequence of the region-Epipalaeolithic, Mesolithic, Neolithic, Chalcolithic, Early Iron Age, NBWP, Sunga-Kushana, Gupta and Early Medieval Periods. The prominent excavated sites are Sohagaura (IAR 1974-75 : 46-47, Chaturvedi 1985), Narhan (Singh 1994), Imlidih Khurd (Singh 1992-93, 1993-94) Khairadigh (Singh 1987-88), Bhunadih (Singh and Singh 1997-98), Waina (Singh and Singh 1995-96), Lahuradewa (Tewari et al. 2001-2002, 2002-2003, 2004-2005, 2007-2008), Jhusi (Misra et.al. 2002-2003) and Hetapatti (Pal and Pal Gupta 2005) in Allahabad. While Chirand (IAR 1981-82 : 13-14, Verma 1971, Narain 1970, Varma 1998, Sinha 1994, Roy 1989) in Saran, Chechor Kutubpur (IAR 1977-78 : 17-18) in Vaisali, Taradigh (IAR 1984-85 : 9-10, IAR 1986-87 : 23-24, IAR 1987-88 : 9-11) in Gaya, Maner (IAR 1985-86 : 11-12, 1986-87 : 25-26; IAR 1987-88 : 11-12, IAR 1988-89 : 7-8) in Patna and Senuwar (Singh 1990, 1997, 2001, 2004) in Rohtas district in Bihar.

Neolithic –
The Neolithic settlements have been located on the bank of rivers or nalas, generally above the flood plain. In the selection of sites for settlements the main consideration was the availability of land for cultivation, water resource and animals and wild plants in surrounding areas. Flood plains provide fertile fields for agriculture by annual annination which could be cultivated without tilling and irrigation. As the evidence shows the Neolithic people were not dependent on agriculture alone for their subsistence. The explorations conducted in the Eastern Uttar Pradesh over the last five decades have resulted not only identifying Neolithic culture in this region but also in bringing out the salient features of the same. Sites pertaining to the Neolithic Culture have been reported from Basti, Siddharthnagar, Sant Kabirnagar, Gorakhpur, Ballia and Allahabad districts of Uttar Pradesh and Saran, Vaisali, Patna, Gaya and Rohatas districts of Bihar. The entire Neolithic ceramic assemblage, on the basis of surface treatment, has been divided into four wares : (1) Cord impressed ware, (2) rusticated ware, (3) burnished red ware and (4) burnished black ware.

Cord Impressed Ware –
The cord-impressed ware has been found in Neolithic context at Chirand, Chechar Kutubpur, Maner, Taradigh, Sohagaura, Lahuradewa, Jhusi and Hetapatti in the eastern Uttar-Pradesh that has techno-typological similarity with that the Vindhyas.
The cord-impressed ware has a coarse fabric and porous core. Except a few thin sectioned sherds the section of the pottery generally varies from thick to medium. The functional types in this ware include convex side shallow and deep bowls with everted, thinned, thickened and featureless rim. **Rusticated Ware** –
The clay preparation, surface and core colour, and firing condition of rusticated ware are similar to that of the cord impressed ware, the distinction being only in the treatment of exterior surface. **Burnished Red Ware** –
The pots are coated with a thick red ochrous slip and subsequently burnished. The bowls being slipped and burnished on both the surfaces, have almost smooth and even body. But in cases of jars, the slip and the burnishing are confined to the outer surface alone. **Burnished Black Ware** –
The technique of manufacturing the pottery, firing condition and burnishing are similar to that of the burnished red ware. But the slip is of black colour. The core is black or grey, the fabric is medium and section varies from medium to thin.

<table>
<thead>
<tr>
<th>Name of the site</th>
<th>Ceramics</th>
<th>Excavated by</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Jhusi (Lat. 25°26'10&quot; N; Long. 81°54'30&quot; E)</td>
<td>Cord impressed Ware, Rusticated Ware, Burnished Red Ware, Burnished black Ware and crude Black and Red Ware.</td>
<td>University of Allahabad</td>
<td>Misra et al. 2002-2003.</td>
</tr>
<tr>
<td>Hetapatti (Lat. 25°29'0&quot; N; Long. 81°55'31&quot; E)</td>
<td>Hand made pottery characterized by the cord-impressed ware, Rusticated ware, ordinary Red Ware and occasionally Burnished Red Ware.</td>
<td>University of Allahabad.</td>
<td>Pal and Gupta 2005.</td>
</tr>
<tr>
<td>Lahuradewa (Lat. 26°46' N; Long. 82°57' E)</td>
<td>Mainly coarse variety of Red ware, Black and Red ware which includes hand and wheel turned (slow wheel) varieties. Course variety of Red ware. Black and Red ware with few sherds of grey ware and Black ware.</td>
<td>State Archaeology, U.P.</td>
<td>Tewari et. al. 2002-2003</td>
</tr>
<tr>
<td>Chirand (Lat. 25°45' N; Long. 84°50' E)</td>
<td>Red ware, Grey Ware (in less quantity), Black, Black and red ware (largely handmade and rarely made by turn-table method)</td>
<td>State Archaeology Bihar and Patna University.</td>
<td>S.R. Roy 1989</td>
</tr>
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**Chalcolithic:**
The prominent excavated sites are Sohgaura (IAR 1974-75 : 47), Narhan (Singh 1994), Imlidih Khurd II Khairadih (singh, 1987-88), Jhusi (Misra et.al. 1997-98), Dhuriapar (singh 1991-92) (Uttar Pradesh) and Senuwar (Singh, B.P. 1989-90) (Bihar) in Eastern Uttar Pradesh. The ceramic assemblage of this stage exhibits increase of varieties in terms of wares and pottery shapes. The main assemblage comprises of Black and Red ware, Black slipped ware, Red ware both slipped and unslipped course Red ware (these are plain and as well as painted). **Black and Red Ware (BRW)** –
This group of pottery had been attracting the attention of both Indian and Foreign Scholars. BRW is the principle ceramic industry of Chalcolithic period. It is characterised by two surface colours, black in the interior and on the rim/ neck and red on the exterior body. It was first reported from Arikamedu in 1945 by Wheeler (1947) who first coined the term BRW. The fabric of pottery is generally coarse and section varies from medium to thick some of the pots are coated with a slip. Apparently on account of inverted firing, the slip on inner surface and upper portion on the exterior has turned into bright black. **Red Ware** –
The red ware which is both thin and thick is equally predominant at the site. This ware does not appear to be slipped but has got the red colour because it was fired in oxidizing condition. The thick variety which is coarse is mostly represented by storage jar. The medium thin variety is represented by globular pots without turned rims or rims with flat projection, large to medium size shallow convex bowl, cups with flaring sides, incurved rim and flat base and basins with or without ledge. Shapes which are very rare include deep saucer, loop handle, cup-shaped lids with a big hole in the centre and flat tiles with a hole. The red ware is coated with an ochrous red slip. As the slip itself has been weathered considerably, it can not be confirmed whether there was any tradition of painting. Painted pots have been reported from Chirand, checher Kutubpur, Khairadih, Narahan and Senuwar. The red ware is characterized by rich and varied functional types. Among the noteworthy types, mention may be made of hemispherical bowls, ovaloid, shallow bowls-cum-lids, dishes, shallow and deep basins with collared rim convex base and high concave necked vases, conical vases with tapering profile. **Black Slipped Ware** –
The black slipped ware is made of well levigated clay. The pottery is baked in high temperature and both the surfaces are slipped. Generally, the slip is bright black but in few cases grey slip is also found. The fabric ranges from medium to fine. Main shapes are bowls with varying profiles i.e. carinated, straight sided, convex sided, pedestalalled etc. dishes; convex or straight sided, pedestalalled basins and vases. Paintings executed in white at Taradih, creamish white at Khairadigh and black at Sohgaura on interior or exterior.

Table 2 : Showing the Main Ceramics and shapes of Chalcolithic stage in Eastern Uttar Pradesh

<table>
<thead>
<tr>
<th>Name of the site</th>
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<th>Shapes</th>
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<tbody>
<tr>
<td>Jhusi (Lat. 25°26' 10&quot; N; Long. 81°54' 30&quot; E)</td>
<td>Black slipped ware; Black Burnished ware, Red Ware and Black and red ware.</td>
<td>Bowls with varying profile i.e. pedestalalled, convex sided and hemispherical splayed out rim; lipped vessels and footed and perforated vessels etc.</td>
<td>University of Allahabad</td>
<td>Misra et al. 2002-2003.</td>
</tr>
<tr>
<td>Lahuradewa (Lat. 26°46' N; Long. 82°57' E)</td>
<td>Plain and Painted Black slipped ware, Red ware, Black and Red Ware and Black and grey ware.</td>
<td>Increasing number of dish on stand, bowl on stand, pedestal bowl, perforated legged vessel, lipped vessel, disc based bowl, button based lids and spouts.</td>
<td>State Archaeology, U.P.</td>
<td>Tewari et. al. 2002-03</td>
</tr>
<tr>
<td>Khairadigh (Lat. 16° 10’ N; Long. 83°51’ 30” E)</td>
<td>Black and Red ware, Black slipped ware, Red ware (slipped and unslipped), and Black ware.</td>
<td>BRW : various types of bowls, vases, basins and dishes BSW : Corrugated bowl, flat base bowl, flanged bowl, straight sided bowl, hemispherical bowl and convex sided bowl. RW : bowl, deep and shallow basins.</td>
<td>Banaras Hindu University</td>
<td>Singh.P. 1987-88:33</td>
</tr>
<tr>
<td>Chirand (Lat.25° 45’ N; Long. 84° 50’E)</td>
<td>Black and Red ware, Black slipped ware and Red ware.</td>
<td>Dish-on-stand, long-necked jar, lipped bowl, basin, bowl on ring-base, spouted vessel, per-forated pot, lipped jug etc. lotas with high neck and corrugated shoulder.</td>
<td>State Archaeology, Bihar and Patna University</td>
<td>S.R. Roy 1989.</td>
</tr>
<tr>
<td>Senuwar (Lat. 24°56’ N; Long. 83°56’ E)</td>
<td>Black, slipped ware, Burnished Black ware (Both are plain as well as painted). Slipped Red ware.</td>
<td>Dish-on-stand, bowls, straight sided deep bowl, vases with vertical featureless long rim and bulging body, splayed out rim; various Kind of dishes, basins, tubular spouted vessels etc.</td>
<td>Banaras Hindu University</td>
<td>IAR 1986-87 : 26-28</td>
</tr>
<tr>
<td>Agahor (Lat. 25° 13’ 52” N; Long. 82°38’ 41”E)</td>
<td>Black slipped ware, Red ware, Black and Red ware.</td>
<td>BRW: bowls, storage jar, dish-on-stand BSW: deep bowls, shaped vessels and pedesdall bowls. Red ware: bowl vases and base</td>
<td>Banaras Hindu University</td>
<td>P.Singh, Tripathi and Upadhyay 2009 : 52-53</td>
</tr>
</tbody>
</table>

Analysis & Comparison –

The Neolithic culture of the Eastern Uttar-Pradesh is marked by a rich and varied ceramic Industry. The available evidence indicates that in the early stage of the culture as indicated at Chirand, Lahuradewa, Jhusi and Hetapatti, people were using hand made pottery but subsequently the slow wheel appears to have been used for the purpose. The ceramic assemblage includes cord impressed w are, ordinary red ware, lustrous red ware, burnished ware (red, black and grey), rusticated ware and crude black-and-red ware and the clay used for manufacturing the pots is not well levigated. It contains girts, husks and chaff as degraissant. Pots are generally ill fired and have blackish grey core. Pottery types including bowls with varying profile, vases, vessels, basins, miniature jars, handis etc. suggest that these were used for storing, cooking and also kitchen wares. A large number of vases with rustication and soot mark on outer surface indicate that these were for cooking, possibly for boiling rice. Bowls basins and vases also have sometimes spouts, suggesting consumption of liquid or semi-liquid food. The cord-impressed pottery is a distinguishing feature. Sometimes rustication or burnishing is done on the cord impressed surface. A variety of pattern in cording has been found at Jhusi and Hetapatti.
Chronology –
Some Important excavated Neolithic sites of the eastern Uttar Pradesh have furnished C-14 dates also, on the basis of which a reliable Chronology of the culture can be worked out. The sites in question are : Chirand, Senuwar, Lahuradeva and Jhusi. Two dates obtained from Chirand read 1760 ± 150 B.C. and 1680 ± 135 B.C. These dates push the beginning of the Neolithic culture at the site around 2000 B.C. from the overlap phase (Neolithic and Chalcolithic) of Senuwar four dates reading 1770 ±120 B.C., 1660 ± 120B.C., 1500 ± 110 B.C. and 1400 ± 110B.C. have been obtained. Three 14C dates have come to light from recent excavations at Lahuradeva in the middle Gangetic Plain, which read as 5320 ± 90 BP (BS 1951) (Cal B.C. 4220, 4196, 4161) and 6290 ± 160 BP (BS 1966) (Cal BC 5298) (Tewari et.al. 2001-2002, 2002-2003). Recently three relevant 14C dates have been obtained from Tokwa. When calibrated these read 6591 BC (BS-2417), 5976 BC (BS-2369), 4797 BC (BS-2464). An AMS 14C date for a carbonized domesticated rice would push the antiquity of the Neolithic culture at Lahuradeva in 7th millennium BC (Tewari et. al 2004-2005:40). From the Neolithic horizon of Jhusi three 14C have been obtained. These dates when calibrated, read 7477 BC (BS-2526), 5837 BC (BS-2524) and 6196 BC (BS-2525). The earliest date obtained from the site would put the beginning of the Neolithic culture of the site 8th millennium B.C.
The two sets of evidences archaeological and radio carbon dates available so far suggest a long history of the Chalcolithic culture of the study region (possehl, G.L. 1988). The sites in question are : Jhusi, Senuwar, Shringverpur, Narhan, Khairadih, Chirand Sonpur and Sohgaura. Two dates obtained from Jhusi read 1340+90 B.C. and 830 ± 90 B.C. Three dates obtained from Senuwar read 1500 ±110 B.C., 1660 ± 120 B.C. and 1440 ± 120 B.C., one date obtained from Shringverpur 750 ±134 B.C., two dates obtained from Narhan 1123 ± 110 B.C. and 1133 ± 110 B.C. two dates obtained from Khairadih 1120 + 90 B.C., 1130 ± 160 B.C. and 940 ± 150 B.C., seven dates obtained from Chirand 1655 ± 103 B.C., 1585 ± 103 B.C., 1540 ± 93 B.C., 1050 ± 88 B.C., 770 ± 98 B.C., 715 ± 105 B.C. and 845 ± 125 B.C., one date obtained from Sonpur 635 ± 103 B.C and two dates obtained from Sohgaura 1375 ± 113 B.C. and 1235 ± 134 B.C.
Thus on the basis of Cumulative evidence of Chalcolithic culture of the Eastern Uttar Pradesh may be placed with in the time range of 1800 B.C. to 700 B.C.

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MAP OF EASTERN UTTAR PRADESH SHOWING LOCATION OF SITES
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