CHAPTER II
Chapter II

DISTRIBUTION OF EUCCC

1. Area of Distribution*

The early uninscribed cast copper coins (EUCCC) are found not only in Northern India. But also across the Vindhya range up to Nevasa in Maharashtra. The extent of its distribution is marked by the sites like Taxila in North-west, Nevasa in South-west, Mahāsthānagām in North-east and Sisupālghām in South-east. In locating the area of its distribution, the excavated sites provide direct and reliable clues. Such sites present a detailed picture of the period, types of coins, and of course the area where these coins played a significant role in the economic activities of the people. Sites of the category where the coins have been found in stratified layers along with other antiquities in excavations are, however, not many. Yet they certainly help in fixing the period of its circulation and the cultural context of the area where it circulated. A second type of sites is that where the coins have been found in explorations, surface diggings and collected from local people. These sites are not much

* See Map 1

\[ \begin{aligned}
&\text{\textbf{MO}} \\
&\text{\textbf{TH-847}}
\end{aligned} \]
informative. They just indicate the presence of these coins in a particular locality. However, when the sites of the second type are closely connected by their proximity to the sites of first type they have generally been taken as important from the point of view of its circulation.

In Maharashtra, the EUCCC has been found in a number of sites which suggests its wide spread distribution in the south, i.e. the ancient Dakshinâpatha. Nevasa in Ahmed Nagar district situated on the bank of river Parvasa, a major tributary of the Godavari is the southernmost limit of the distribution of this coinage. At the site the coins found are from stratified layers with other coinages of ancient India like Punch Marked (PMC), Tribal, Sâtvâtanâs and others.1 Nasik is another site of this locality, not far north-west of Nevasa, situated on the bank of Godavari, which is at present a distinct headquarter. It occupied 'a pre-eminent position as it lies on possibly the best route between Central India and the West Coast'. Further the river Godavari itself

provided, one of the most important communication links in the ancient period meeting the Bay of Bengal in a broad fanshaped estuary near Rajmundary on the east-coast.\(^2\) Only eight coins were found in excavation at the site of which five could be identified as EUCCC, PMC and die-struck coins.\(^3\) Towards the north-east of Nasik is the site of Kaundanyapura situated on the western bank of Wardha river in Amraoti district. The coins found at the site are both from surface and excavations revealing the presence of EUCCC and die-struck coins along with PMC silver and copper.\(^4\) In district Bhandra is situated at the site of Pauni where EUCCC occurs in addition to Satavahana and other unidentified coins of an early period.\(^5\) At Bhokherda, the ancient Bhogavardhan, in district Aurangabad were found in excavations coins such as PMC, EUCCC, Satavahana, Gupta and others.\(^6\) However, the EUCCC found at this site are not

---

3. Ibid, p.30
4. M.G. Dikshit Excavations at Kaundanyapur (Bombay, 1968) pp. 134-139
only of later period contemporary with the Satavahanas, but are also closer in affinity to the Satavahana type of coins.

At Kāmrej in Surat district situated on the banks of the Tāpi 25 miles from its mouth in the State of Gujarat were also found EUCCC, PMC, Satavahana, Ksatrapa and other coins.7

In Madhya Pradesh, the twin sites of Maheshwar and Navadatoli in West Nimar district situated on the Northern bank of Narmada, also reveal the presence of this coinage in stratified layers. The site is located in the slight bend of river Narmada at the junction of the river Maheshwari which flows from the Vindhyas. The total number of coins found at the site in course of excavations and explorations are fortyeight, including EUCCC, Tribal, one possibly of the Satavahana and others.3 Towards the north east of Maheshwar lies the site of Ujjain, at present a district headquarter, situated on the bank of sipra a tributary of the river Chambal. The coins found at the


site in excavations are reported to be in "large numbers" but no details of the coins are given.9 But the presence of EUCCC at the site is suggested by the coins collected from Ujjain and discussed by H.V. Trivedi.10 There are other sites in Ujjain district revealing the presence of EUCCC, such as Kayatha situated on the bank of Chōti-Kali-Sindh river, about 25 Km east of Ujjain on Ujjain-Maski Road,11 and Dhangwade where "forty cast copper and PM coins" were found in the course of an exploration.12 In Jabalpur district about 80 miles to the west of Jabalpur is the site of Tripuri revealing presence of EUCCC in stratified layers in addition to PMC, Sātavāhana, Tripuri-Janapada coins and a few unidentified coins of early period.13 The site of Tripuri, known as "Kasambā" is bounded on its three sides by the river Banagangā, a tributary of the Narmada. To the north-east of Tripuri, in Sagar district is the site of Eran from where uninscribed copper coins are reported in excavations, without any

9. Indian Archaeology - A Review (Delhi) 1956-57 p.24 and 1957-58, p.34
10. H.V. Trivedi "Some Interesting Coins from Ujjain" J.N.S.I. 1951 vol.XII pp.209-214
11. N.G. 1964-65 p.18
12. Ibid 1969-70, p.17
13. M.G. Dikshit, Tripuri 1952, pp.121-130
details, but the site revealed the presence of EUCCC in explorations conducted by A. Cunningham. At the site of Bésnagar situated in the fork between the converging rivers Betwá and Bes in Vidisa district were unearthed a number of coins including EUCC, PMC, Tribal, Sātavāhana, Kṣtrapa and others. At Malhar in Bilaspur district were unearthed in course of excavations and explorations EUCCC, PMC, and Tribal coins. The EUCCC and PMC were also collected in surface explorations from villages of Mandsor and Sajpur district, Sararpur in Rajagarh district, Jamuria in Hosangabad district and Padmavati situated at the confluence of rivers Sindh and pārā in Gwalior district.

---

14. n.9 1962-63, pp. 11-12
17. n. 9 1973-74 p.18
18. n. 9 1969-70, p.17
In Rajasthan the presence of copper mines in Khetri Belt, explored in ancient days suggests the economic importance of the area, although not many excavations have been carried out here. The site of Noti in Bharatpur district where EUCCC and PMC have been found in excavations lies to the south-west of a belt of copper mines called Nim-Ka-Thana. At Raibar, in Tonk district, situated on the bank of river Dhil were found EUCCC, Tribal and five hoards of PMC coins in the course of excavations and explorations. At Chandravati situated on both the banks of chandrabhaga river near Jhalrapatan EUCCC and PMC silver were collected by Cunningham.

In Punjab, Haryana and Delhi the number of sites revealing the presence of this coinage is not large. At Rupar presently a district headquarters in Punjab were found EUCCC in addition to Indo-Greek and Kusāṇa coinage. In Haryana at Sugh in Ambala District were unearthed EUCCC, PMC, Tribal and Indo-Greek coins. But at other

22. n. 9, 1965-66, p.38; 1966-67, pp.30-31; 1970-71, pp.31-32; and 1971-72, pp.41-42
23. K.N. Puri, Excavation at Raibar (Jaipur) pp 2-4 and 63-67 and n.9 1972-73, p.57
24. n. 9 1863-64, Vol.II, p.264
25. n. 15, p. LXXVII
26. n.9 1953-54, pp.6-7, plate V.C
27. Ibid 1965-66, p.35.36
sites of Haryana, such as Raja-Kam-Ka-Qila 28 and
Daulatpur 29 both located in Kuruksetra district, the
copper coins are reported but without details. In Delhi
the Purana Qila site, traditionally believed to represent
Indraprastha, associated with the Pandavas of the Mahabharata
epic has revealed the presence of EUCCC in addition to
PMC, Tribal and Kusana coins. 30

In Uttar Pradesh there are many sites where this
coinage occurs. On the banks of river Yamuna at the site
of Mathura, traditionally associated with Krishna story,
this coinage has been discovered along with Kusana coins. 31
In Mathura district there is another site Sonkh situated
some 30 km south-west of Mathura city from where EUCCC
in addition to PMC silver, Tribal, Kusana and Kosatrapa
coins are reported. 32 In Meerut District about 60 miles
in north easterly direction from Delhi is situated the site
of Hastinapura on the bank of river Gangä associated with
Mahabharata tradition from where EUCCC, PMC (silver and

---

28. Ibid. 1971-72, pp.15-16
29. Ibid. 1976-77 (typed copy)
30. Ibid, 1954-55, pp.13-14; and 1969-70 pp.4-6 Plate XII.1
    (Reprinted from German Scholars on India Vol II) pp.79-80
    and n.9 1968-69 p.40, 1972-73, pp.33-35
copper) tribal and the imitation copper coins of Kuśāna were found. The other site related in the Mahābhārata story connected with Pāñcchāḷa is Ahichchhatrā in Bareilley district on the bank of river Gāṅgā from where EUCCC and Tribal coins in excavations were found. In the course of excavation at the site of Srīṅgārīpur in Allahabad district about 35 Km upstream from Allahabad proper were unearthed EUCCC, PMC silver and copper, tribal and Kuśāna coins. At Kuṇḍambi in the same district about 32 miles south-west of Allahabad were discovered in excavations sufficient number of coins including EUCCC, PMC silver and copper and Tribal coins. Near Kuṇḍambi, yet another site is Bhita also in Allahabad district the ancient 'Bitabaya Pattama'. The coins unearthed at the site include EUCCC PMC, Tribal, Kuśāna and a few of uncertain attributions. At Rājghat in Varanasi district situated in the outskirt of Varanasi proper were found in excavations 'a number of EUCCC'. A famous Buddhist religious centre Sāranāth

---

33. B.B. Lal, "Excavation at Hastinapur and other Explorations in the Upper Ganga and Sutlej Basins 1950-52" Ancient India, 1956, No.10 & 11, pp 5-151 (pp.101-105)
35. n. 9, 1977-78 (typed copy)
37 n 19, Vol. III, pp 46-47
38 n.16, 1911-12, pp.29-94

(foot note 39 contd....)
is another site in Varanasi district revealing the presence of BUCCC, Tribal and Kusāṇa coins in excavations.\textsuperscript{40} The site of Sahet, Mahet the ancient Śrāvasti situated near the border of Nepal, on the bank of river Rāpti is in the districts of Bahraich and Gonda. While Sahet is in the jurisdiction of Bahraich, Mahet lies in Gonda district separated from each other roughly by a distance of about five hundred meters.\textsuperscript{41} In the excavations at the site were found BUCCC, PMC and Tribal coins.\textsuperscript{42} In Basti district, the site of Pipara has also revealed the presence of BUCCC, PMC, silver and copper, Tribal and Kusāṇa coins.\textsuperscript{43} At Sohagura in Gorakhpur district were found in excavations BUCCC, PMC, Tribal and Kusāṇa coins.\textsuperscript{44} At Jajmou in Kanpur district were also found BUCCC in course of excavation.\textsuperscript{45}

There are also a number of sites from where BUCCC have been collected in surface explorations and purchased from local people. At the site of Sankissa in Farukhabad district

\footnotesize{39 (contn.) (The details about the coins found at the site are not available in any of the published three parts of the excavations report).}

\footnotesize{40. n. 16, 1927-28, pp.95-97; and A. Banerji "A few coins of Saranath", JNSI, 1951, Vol. XIII, pp.110-111}

\footnotesize{41. K.K. Sinha, Excavation at Saravasti, 1957-52, p.1}

\footnotesize{42. ibid pp.73-77}

\footnotesize{43. n. 9, 1973-74, pp.27-28 plate XXXVII. B}


\footnotesize{85. Ibid. 1975-76, p.52}
were collected a number of coins including EUCCC, PMC, tribal and Kusana, the earliest being reported by Cunningham in 1875–78 and the latest by Dr B.S. Tiwari of Lucknow University in 1974. At Masaon situated on the bank of Ganges in Gazipur district PMC and uninscribed copper coins are reported in excavations but without any details. However, EUCCC, PMC, tribal and other coinage are reported from the same site (Masaon district) in course of exploration. At Ayodhya in Faizabad district, the site connected with the epic Ramayana EUCCC and tribal coins were collected. At Kannaj also the EUCCC were found in the course of explorations. The site Bhitari, situated on the bank of river Ganges in Gazipur district also presents the finds of EUCCC and other coins. In the same district is the site Bārant, situated on the bank of river Banaganga from where were collected EUCCC PMC, silver, copper and silver coated copper, tribal and

---

46. N. 19, Vol.XI p.25
47. K.K. Thapalyal "Coins from Sankissa" JNSI, 1974 vol. XXXVI. pp.9-19
49. N.19 vol. XXII pp.103-104
50. A Cunningham, Coins of Ancient India (Delhi 1963)pp.59-63 (The recent excavations being conducted at the site may reveal the presence of EUCCC in stratified layers along with other coinages).
51. J. Prinsep Essays on Indian Antiquity (Delhi) p.84
52. N. 19, Vol.I, p.97
others. At Indorkera in Bullandsahar district a large number of coins were also found including EUCCC, PMC, Tribal and others. At Sachankot in the fort located on the bank of Sai river were found the EUCCC, PMC and Kusana coins. Similarly of Karra fort situated on the bank of river Gangā were also found EUCCC, PMC, Tribal and a few unidentified coins of copper. At the village Nigoh in Jaunpur district were also collected EUCCC in addition to PMC and tribal coins in course of explorations. In Bihar, the EUCCC are found on a number of sites which are in continuation of the sites of UP. At the site Pāṭaliputra, situated on the bank of river Gangā, EUCCC have been discovered in excavations in addition to PMC, Tribal and Kusāna coins. At Nalanda the famous ancient University in the district of the same name were found EUCCC in excavation in addition to other coinage of a later period. Rajgir the ancient capital of the Magadha Kingdom

54 Ibid, Vol. XII, pp. 40–41
55 Ibid, Vol. XI, pp. 53–54
56 Ibid, Vol. XVII, pp. 89
57 n. 9, 1964 – 65, p. 72
another site in the district of Nalanda, from where EUCCC are reported in excavations.\textsuperscript{60} The other coins found at the site (Rajgir) are PMC and probably single-die copper coins.\textsuperscript{61} The site of Sonpur situated on the bank of Jamuni river has yielded in excavations EUCCC, PMC, copper, silver, silver coated copper, alloy and probably one die-struck coin.\textsuperscript{62} At Champā situated on the bank of river Ganga in Bhagalpūr district were found EUCCC in excavations.\textsuperscript{63} In the locality of ancient Vaisālī of the Lichchavi Republic situated about 18 miles away from the north bank of river Ganges have been found in excavations EUCCC, PMC copper, silver, silver coated copper and alloy, Kusāna and a few unidentified coins.\textsuperscript{64} At Kataragārh in Muzaf-farpur district were unearthed EUCCC and Kusana coins in the course of excavations.\textsuperscript{65} The site of Chēchar in Hajipūr district situated about 20 km west of Hajipūr on Hajipūr-Mahanār Road, also revealed in excavations a sufficient number of EUCCC.\textsuperscript{66} At the site of

\textsuperscript{60} n. 9, 1974-75, pp 10-11
\textsuperscript{61} A Ghosh "Rare oblong coins from Rajgir" JNSI, Vol.I, 1939, pp 5-8
\textsuperscript{62} B.P Sinha & B.S Verma, Sonpur Excavations, 1956, 1959-62 (Patna 1977) pp 89-98 (The only die struck coin found of early period at the site (Plate XXII.16) is identical with the coins found at Rajgir and discussed by A Ghosh, n.61
\textsuperscript{63} n. 9, 1971-72, p 5, 1972-73, pp 6-7
\textsuperscript{65} n. 9, 1975-76, p 8 and 1976-77 (typed copy)
\textsuperscript{66} Personal communication (kindly supplied by Mr GP Singh, Technical Asstt, Mid Eastern Circle, ASI, Patna)
Chirand in Saran district situated at the junction of old river channel (an old bed of the Ghagra river) with the Gangā, about 7 miles to the south-east of Chapra town were found in excavations EUCCC, PMC and Kusāna coins.\textsuperscript{57}

About 80 Km north-east of Darbhanga town in Madhubani district is situated the site Balirājgarh on the bank of river Kamala revealing the presence of EUCCC in excavations.\textsuperscript{68} Sarad Kel situated on the left bank of river Tajna in Ranchi district is the only site located in south Bihar revealing presence of EUCCC in excavation.\textsuperscript{69} In explorations, EUCCC were also found at village Panr, near Dalsinghsara in Samastipur district\textsuperscript{70} and Pimagar in Monghyr district.\textsuperscript{71}

In Bengal across the boundary of Bihar, there are several sites which reveal the distribution of this coinage in the area. At Chandraketugarh, situated in district 24-Parganas about 23 miles to the north-east of Calcutta were found in excavations and explorations EUCCC and PMC.\textsuperscript{72}

\textsuperscript{57} n.9, 1963-64 pp.6-8; 1964-65, p.7; 1968-69 pp.5-6; 1971-72, pp.6-7 and 1972-73 pp.7-8
\textsuperscript{68} Ibid. 1962-63 pp.3-5 and 1972-73 p.7
\textsuperscript{69} Ibid 1964-65 p.6
\textsuperscript{70} Ibid 1972-73 p.8
\textsuperscript{71} Ibid 1954-55 p.61
tions conducted by a team of Ashutosh Museum of Indian Art, Culcutta, a large number of EUCCC were collected. Berachampa is yet another site in the same district from where EUCCC were collected in exploration. At Tamluk in Midnapur district also excavations and explorations revealed presence of EUCCC at the site. The site is identified with Tamralipi, the famous trading centre of ancient period. At Pokrana in Bankura district were obtained in course of explorations EUCCC and PMC Silver.

In Orissa, Sisupalgarh situated in the bank of river Mahanadi represents the south-eastern distribution limit of this coinage. The coins found here include un-inscribed copper and lead coins, PMC, Kusāna, imitation Kusāna coins and Sātavahana coins.

Across the present boundary of India, there are several sites. Taxila situated in Pakistan is the most prominent site outside India which revealed the presence of both cast and die struck coins in addition to PMC.

73 Ibid, 1958-59, p.77 and 1959-60, p.78
74 n. 16, 1922-23, p.109
75 n. 9, 1954-55, pp.19-20 and n.10, 1921-22, pp.74-75
76 n. 9, 1960-61, p.7
77 B.B Lal "Sisupalgarh 1948: An early Historical Fort in Eastern India" Ancient India, 1949, p.95-101
Indo-Greek and Kusāṇa coins. In the north-western region Yusufzai country is also reported as rich in such numismatic finds. The EUCCC were also found in the region of Sindh in course of explorations. Thus on the basis of the available information the site of Taxila can be marked as the actual north-western limit of the distribution of EUCCC. At Tilaurakot in Tulhwa district of Nepal EUCCC and PMC silver and copper were found in excavations. The site of Tilaurakot marks the northern most limit of the distribution of EUCCC. The site Bāngār in Dinajpur district in Bangladesh situated on the bank of river Punarbha also represents the finds of EUCCC, PMC copper and silver, both in excavations and explorations. On eastern side the extent of its (EUCCC) distribution is marked by the site Mahāsthāṅgarh situated about 8 miles due north of Bogra town on the bank of Karatoya river in Bangladesh, revealing presence of EUCCC and PMC in excavations.

78 J Marshall, Taxila Vol.II (Delhi) pp 756-763
79 n. 19, Vol.V, p.26
80 A.S.I. Office, New Delhi, Photo Album No.1, Sindh 1902-3, Plate 16
81 D Mitra, Excavation at Tilaurakot and Kodan... (Delhi, 1972) pp.84-89
82 K.G. Goswami, Excavation at Bangarb 1938-1941, pp.30-32
83 Ahmed Nazimuddin, Mahasthan - A Preliminary Report pp.5 and 47
Thus the present investigation reveals that the area of its distribution is not limited to northern India along, but it covers almost the entire Indian sub-continent. On the eastern side of India from north to south the limit of its distribution is revealed by the sites such as Bangarh, Chandraketugarh, Mahasthangarh, Tamluk and Sisupalgarh. On the western side of India from south to north the sites are Nevasa, Nasik, Kamrej, Maheshwar, Namdatoli, Ujjain, Noh, Rupar and Taxila extending up to Yusufzai country. On the north from west to east bordering sites are Taxila, Rupar, Hastinapur, Saravasti, Tilaurakot and Bangarh. The extent of its distribution in the south seems to be marked from east to west by the sites like Sisupalgarh, Pauni, Kaundanya-sur and Nevesa. Within this extent the sites like revealing the presence of EJCC are sufficient in number to show that the coin played an important role in the economic activities of the people. The sites of Maharashtra are in general continuity with other sites of northern India. However, in Punjab, Haryana and Delhi and Rajasthan there are not many sites unlike Madhya Pradesh, Uttar Pradesh, Bihar and Bengal. But this may be due to limited number of excavations conducted in the area. In Orissa there is only one site, i.e Sisupalgarh which marks the extent of its distribution in eastern India.
2. Cultural Context of Distribution

To understand the distribution pattern of this coinage, it is necessary, first of all, to look at the cultural context in which this coinage occurs. Such an investigation is possible only for the sites of first type, i.e. the excavated sites, in which the coins have been found in stratified levels. As said earlier, such sites are not many, but conclusions arrived at on the basis of the study of these sites can be taken as indicative of the general situation in the area under study.

In northern India, the eastern most presence of this coinage is at Bāngārṇ in Bengāl. At the site both the coin types EUCCC and PMC were found in layers from 8.90' to 21' below datum line corresponding with stratum IV and V representing Maurya and Sunga periods. Both these periods at Bāngārṇ reveal urban development. The structural activities of stratum IV consist of the use of burnt bricks for residential buildings, rampant wall (10.8" wide) and drain, cesspits, etc. However,

stratum V assignable to Mauryan period, does not reveal the same building activity, except for the occurrence of ring wells. The northern black polished ware (NBPW) occurs in stratum V and becomes rare in stratum IV. Types of NBPW found at the site are dish, bowl, cup, jug, jar, vase, etc, which survived in the grey pottery and burned red pottery of stratum IV. ²

However, since there is no evidence of commercial and industrial activities of the people except for bricks and pottery making it may be suggested that the site was perhaps of administrative importance.

The next site in this locality is Chandraketugarh on the border of Bangladesh. At the site by first century B.C. occurrence of lumps of agate and quartz together with some unfinished beads indicate the existence of a factory site and suggests some industrial activity. ³ But similar intense activity is not suggested in the earlier period I assignable to pre-Mauryan era. The site reveals the presence of NBPW, thick grey ware, red ware often treated with slip and followed by the ceramic industry of early christian era and Rouletted ware. ⁴

2. Ibid
4. Ibid
The wide range of ceramic industry available at the site indicates the continued importance of the site through successive cultural periods from the Mauryas to the early Guptas. The structural remains revealing fortified township with five successive phases and remains of the polygonal brick structure probably of Gupta period indicate that the site was more a commercial centre than an administrative centre. Occurrence of tile fragments and square wooden structure made of tightly joined horizontal planks suggest that the houses were made of perishable materials and mud of which remains are rare. However, on the planks of the structure a thick layer of paddy husk was found suggesting its use for storing paddy. Thus the site amply reveals its urban cultural context but only after second period datable in 2nd 1st Century B.C. and not earlier. The BUCC occur along with PMC in the earliest period. But PMC are not found in the later periods.

5. Ibid 1956-57, p.30
6. Ibid 1957-58, pp.51-52
8. Ibid 1963-64, pp.64-65
while the EUCC occurred in the subsequent period also. Though, the number and varieties of EUCC at the site are not given still it is clear that a large number of coins were found as indicated in reports from 1956-57 to 1963-64 almost regularly.

Tamluk a site situated to the south-west of Chandraketugarh does not show intense economic activities during 3rd and 2nd Century B.C. But in the same period EUCC are found along with NBPW and 'beautiful Terracotta figurines'\(^9\). In the succeeding period datable to circa A.D. 100 to 200 occurrence of Rouletted ware indicates Roman influence on pottery and together with this the brick built structures, ring wells and soakpits,\(^10\) suggest its urban character certainly in a more developed form than in the earlier period. Thus except for the occurrence of EUCC there is no indication of its representing urban character in the earlier period.

Tamluk, the famous ancient trading post seems to gain importance in the early centuries of the Christian era as the excavated antiquities would suggest and not earlier.

------------------------
9. Ibid 1954-55, p.20
10. Ibid.
Thus it seems that in Bengal the sites present almost similar cultural character and uniformity in the occurrence of EUCCC. The earliest period at these sites reveals presence of EUCCC, except for Tamluk where period I represent neolithic culture. At all these sites PMC has been outnumbered by the EUCCC. This leads to the suggestion that in the locality, EUCCC, were playing a more vital role than the PMC and had a perfect hold over the currency system of the area.11

In Bihar, the sites revealing the presence of EUCCC are mainly situated in the northern part on both the banks of river Ganges. There is only one site in south Bihar, Saradkel representing 'Asura Culture' where the coin has been found in association with the antiquities of the Kusāna period. But the presence of the coin at the site has been preceded by an urban settlement mainly involved in iron metallurgy as the iron smelting ovens with iron slags would suggest.12 Large scale use of baked bricks, massive defence wall, stone anvil, ovens, iron slags and objects would show that

11. The sites like Berachampa and Harinarayanpur both in the same District of 24 Parganas as Chandra-ketugarh may also reveal the same cultural contents in excavations.

12. n. 3, 1964-65, p.6
it was an industrial complex. It seems that the EUCCC reached south Bihar in later period than at the sites in north Bihar. However, as only one site is available in south Bihar, it prevents any generalisation regarding the nature of distribution in the area.

In contrast northern Bihar presents a number of sites with large number of coin finds. At the site Champà in the first phase of the mud rampart was found a 'few copper cast coins' along with Black-slipped ware, grey ware and a few sherds of NBPW. But in the second phase of rampart PMC are also found with silver coating alongwith NBPW and black-and-red wares.\(^{13}\) In phase II brick structure floors and post holes with remains of charcoal and broken tiles were also noticed alongwith EUCCC.\(^{14}\) In phase I-A of rampart the antiquities found like beads of semi-precious stone, stone mould of ornaments, fine female figurine made of ivory, toy carts made of tortoise shell and iron objects\(^ {15}\) would

---

\(^{13}\) Ibid. 1969 - 70, p.2
\(^{14}\) Ibid. 1970 - 71, pp. 4-5
\(^{15}\) Ibid. 1971 - 72, p.5
indicate its urban character with diverse economic activities of the people. In the period I (late NBPW) were also noticed ovens and steps made of bricks which appear to have been utilized for going over the mud rampart of second phase and two parallel walls with 29 and 13 courses of bricks and a brick drain of two courses between the walls.\(^{16}\) Thus at the site coins are found from phase I A of rampart and Period I along with characteristics of urban development.

At Sonpur the coins are found in period II (Circa 650 B.C. to 200 B.C.) along with NBPW as the main ceramic industry. The structures found of this period are traces of mud wall and "a platform over a part of which were a few complete pots, while on the another part there lay a saddle quern and four pestles of stone around a probable hearth, the whole picture fitting into that of a kitchen complex. At another place traces of sand pocket

\(^{16}\) Ibid. 1972 - 73, pp. 6-7

Cultural sequence of the rampart is not clear in the report. However, the first phase of rampart may be representing early phase of NBPW i.e. after Circa 600 B.C., as it is represented only by a few sherds. But the second phase represents NBPW as the main ceramic industry. The correlation of the different phases of rampart and period I is not clear in the report.
and short-channels on the floor were located." The urban character of the site is indicated by the following remains: ring wells which were probably used as refuse pits as suggested by their occurrence in a cluster at one place (as much as five) and filled with greenish colour potteries and terracottas along with animal bones, the extensive use of iron in the period for implements like lance, spearheads, daggers, axes, hails, chisels, blades, etc, and copper socketed arrowheads and ornaments like rings, bangles, etc. The use of ring-wells as refuse pits also suggest a civic sense and lack of open space around the settlement for disposal of wastage. A large number of beads found of different materials along with rings and bangles would suggest a developed industry. One crystal human face, resembling Egyptian face with horizontal perforation on the head was also found in this period (II) which has been remarked in the report as an imported material at the site. Thus the period II as a whole can be taken to

18. Ibid
19. Ibid (Plate xvii) (One similarly carved face was also found in excavation at Bitta in Uttar Pradesh)
represent urban cultural context where trade and industry played an important role. In period III of the site we come across burnt brick structures, an added and obvious characteristic of urban settlement till recent times.

At Pataliputra, the coins occur in period I (Circa 600 B.C. to 150 B.C.) and the lower level of period II (period II dated Circa 150 B.C. to A.D. 500) with a few survivals in the upper levels also. The emergence of coinage with NBPW and archaic hand made terracotta figurines suggest that the coins (PMC and EUCCC) were in circulation during the initial stage of the site. The burnt brick structural remains, though without any known definite plan, along with brick flooring and terracotta ring well at short intervals would also show an urban development of the site.

In period II structural activity is more amply revealed with structures of burnt bricks divided into eight sub-structural periods, terracotta ring wells, etc.

Thus it is clear that the site presents urban character during the period of occurrence of EUCCC.

20 Ibid p. 10-11
22 Ibid, p.11
The other sites such as Nālandā and Rājgir also present similar cultural contents revealing an urban cultural context of its circulation in the localities. At Rājgir in period I (dated Circa 300 B.C. to 200 B.C) the coin appears along with stone rubble wall, showing evidence of firing and a rammed floor of two phases, iron nails, knife and beads, etc. This period is marked by the use of NBPW which disappears in period II.23 Thus on the southern bank of Ganges the sites present almost similar cultural remains and a fairly uniform context in which this coinage occurs.

On the northern side of Ganges the eastern most site is Balirajgarh where the coins are found along with NBPW and a brick rampant indicating two phases of construction. The antiquities found at the site include terracotta plaques, figurines, sealings with swastica symbol and balls and beads found in the habitation area. All these would suggest the urban character of the site when BUCCC occurs.24

---

23 n. 3, 1974 - 75, pp. 10-11
24 Ibid, 1972 - 73, p. 7
At chirand the EUCOC were in circulation mainly in period III (circa 600 B.C) along with NBPW, terracotta figurines, beads, iron and copper objects. This coinage continued in circulation, period IV also in addition to Kusāna coinage. In cultural period III the building activity is not much apparent. However, evidence of houses made of perishable materials were encountered. But in period IV (beginning with Kusāna antiquities) increasing building activity was noticed and even the plans of a few houses could be obtained.\(^\text{25}\) Though details are not available the cultural context is still identical with those at sites like Sonpur, Vaiśali, Pāṭaliputra, etc. The antiquity of the site goes back to Neolithic period (starting around 2200 B.C) and it seems that the site gradually changed into urban centre somewhere in period III (starting in Circa 600 B.C) itself as the finds would suggest. The EUCOC and PMC found at the site in this period III may also show that the factors indicating urban process were use of money and trade and commerce.

\(^{25}\) Ibid, 1964 - 65, p.7, 1971-72, pp.6-7 and 1972-73 pp. 7-8
At Vaisālī the EUCOC are found in four successive cultural periods from period II to period V. But PMC are found in periods II, III and V. Period II (dated circa 600 B.C. to 200 B.C.) though devoid of brick structure, presents some urban characteristics like mud rampants, terracotta seals and sealings, wheels, skin-rubber, metal objects like dagger and knife etc. Period III (dated circa 200 B.C. to A.D. 200) reveals a more developed stage of urban growth with burnt brick structure, military barracks and metals in the form of utensils. Thus the appearance of EUCOC and PMC at the site along with NBPW and their survival in subsequent periods almost beyond A.D. 600 shows a long period of circulation. About twelve coins have been found in periods IV and V of EUCOC type. These coins may be considered a survival of the earlier periods, particularly as their symbols reveal characteristics of a local coinage of Vaisālī (discussed in Chapter IV, Cat.I Gr. A. Var. D)

At Katarāgarh also the EUCCG appeared in the first phase of rampart along with NBPW, terracotta figurines, plaques and sealings bearing only symbols. In second phase of rampart it was built of burnt bricks with 'a semi circular watch tower'. Thus the EUCCG seems to have appeared at the site in a developed urban context. So far as cultural context of the occurrence of this coinage at different sites is concerned there is a general uniformity. The coins appear in the period characterised by NBPW and generally outlives the pottery.

Similar cultural traits are found in the sites of U.P. also. The sites are mainly located in the area covered by the Yamunā and Ganga rivers. At Mathurā the coins occur in period II associated with NBPW as the main ceramic industry of the period. The period II is devided into three sub-periods and the coins appear in sub-period II. This sub-period (II) is associated with terracotta ear-ornaments, grey figurine of mother-goddess and elephant figurine with lozenge-shaped eyes, and bodies decorated with punched, stamped or notched circlets and copper antimony rods. However, the preceding sub-period I

---

27 n. 3, 1975 - 76, p.8
reveals the remnants of bamboo and reed huts with scanty baked bricks and ring wells. The succeeding sub-period III reveals a vigorous building activity in baked bricks. The pottery, terracotta and other cultural traits remain similar for all the three sub-periods. But sub-period III shows a qualitative change from the earlier sub-periods revealing industrial development of the site. In this sub-period III, three phases of a coppersmith's furnace and workshop were noticed along with several moulds of coins, copper coins, and beads of shell, glass and crystal.28 The period II at Mathura, thus reveals a cultural context where the gradual change in the intense economic activity is noticed from sub-period I to sub-period III. At this site the EUCCC appeared in sub-period II and seems to have played a role in the development of its urban character.

At Sonkh, a neighbouring site of Mathura, the EUCCC, are found in association with NBPW assignable to Maurya period in layers 33 and 34. However, the site does not seem to have developed during this period, whereas the next period represented by Sunga antiquity

28 Ibid, 1954 - 55, pp.15-16
is much more revealing, particularly in the fabrication and style of terracotta figurines. In Maurya period while only the faces of the figurines were moulded and ornamental bands applied separately, the Sunga faces including the hair decorations were pressed as a whole from the mould. This indicates the process and development in the technological know-how and creative-genius of artists at the site. Here the people knew iron technology during its earliest period represented by painted grey ware (PGW) culture. The localities covered by Mathura and Sonkh, thus indicate a gradual movement towards urban development. The coins were in circulation during the initial stage though in the Sunga period the EUCCCs of the early period were replaced by Mitra coins as reported from the succeeding levels at Sonkh.

At Hastinapura the EUCCCs are found along with PMC in period III (Circa 600 B.C. to 300 B.C.) associated NBPW. This period is characterised by the occurrence of

29 H. Hertel, Sonkh Excavations: A Preliminary Report (Delhi, 1976) (Reprinted from German Scholars on India, Vol. II) p. 79

30 N. 3, 1966-67, pp. 41-43

31 n. 29, fig. 10
houses of mud bricks and kiln burnt bricks along with brick-lined drains, soakage jars and terracotta ring wells. This indicates the urban character of the site during the period of circulation of EUCCG. The developed material culture of the site is reflected in the finds of iron arrow-heads, chisel, sickle, copper nail parer, bangles, rings and beads of crystalline quartz and etched carnelian etc. In this period in the construction of houses, though their exact plans are not available, both mud bricks and kiln burnt bricks are used, whereas in the preceding period II the houses are made of mud, mud bricks and reed walls with mud plaster and in succeeding period IV they are of burnt bricks squarish in shape. This reveals clearly the characteristic development in cultural context and suggests that the EUCCG and PMC played a definite role in the subsequent cultural development in the area.

The cultural breaks noticed at the site succeeding the period III hinders a proper understanding of the process of change in the cultural context. However, the developed cultural context is noticed from period II (Circa 1100 B.C. to 800 B.C) to period III (Circa 600 B.C)

32 B.B. Lal "The Excavation at Hastinapur and other Explorations in the Upper Ganga and Sutlej Basins 1950-52." Ancient India, 1956 No. 10 and 11, p. 12 A
to 300 B.C.) and again from period III to period IV (circa 200 B.C. to A.D. 300). The terracotta animal and human figurines, some of them moulded would also reveal the process of change from period II to III in its material culture. Thus it is clear that the coins appeared at the site during the period when it was witnessing a change. The EUCCC and PMC (two each) also survived in period IV along with the coins of Mathurā rulers, Yauđheyas, and imitation Kuṣāṇa coins. However, in this period these coins are probably the survival of the earlier period as the number of the finds would suggest.

At ahichchhatrā also the EUCCCs were found in stratum VIII (Circa 300 B.C to 200 B.C) and VII (Circa 200 B.C. to 100 B.C) revealing a material culture some what similar to Hastināpur period III, though not rich in antiquities. The EUCCCs survived in stratum VI also in addition to Pāñchāla coins. In the earliest period I (corresponding with stratum IX dated prior to circa 300 B.C.) no structure was found. But in period II and

33 Ibid
34 Ibid, pp. 101 - 105
35 A. Ghosh and K.C. Panigrahi "The pottery of Ahichchatra District Bareilley, UP. Ancient India 1946, No.1, pp. 39-59
and III (corresponding with stratum VIII and VII respectively) structures were found along with NBPW as the main ceramic industry. The first structures of Kiln burnt bricks were noticed in succeeding levels of period IV of the first century B.C. (Stratum VI) when Panchala coins also appeared at the site. The other antiquities reported from periods II and III (Stratum VIII and VII) are terracotta figurines of mother goddess with applied and punched decorations used freely with variation. At times the collar, the necklace and the girdle are appliqué. Though these figurines are all hand-made and fragmentary, still they exhibit a certain degree of skill in clay modelling. Two types of Mithuna plaques are found at the site in stratum VII and VI. Earlier (Stratum VII) being represented by 'man and woman' type and the later (stratum VI) by 'husband and wife' type known as 'Dampati' types. At the site there is also evidence of concrete road originating in circa 200 B.C. and lasting upto A.D 700 with successive rise in the level. Thus all the evidences

36. Archaeological Remains, Monuments and Museums, Part I (Archeological Survey of India, Delhi) p. 51
37. V.S. Agrawal "Terracotta figurines of Ahichchhatra." Ancient India, 1947-48, No.4, p.106
38. Ibid., pp.109-112
suggest the material culture of an urban nature at the site during the circulation of the EUCCC.\textsuperscript{40}

At Kausāmbi the EUCCC is reported in structural period 5, levels 21 and 22, associated with PGW, roads and Moat number 1, rampart 1 and preceded by burnt brick structure in levels 24 and 25. The coin remains in circulation up to NBPW period in which PMCs also appear.\textsuperscript{41}

\textsuperscript{40} n. 3, 1963 - 64, pp. 43-44

(This excavation conducted at the site near the earlier trench labelled AC V revealed cultural contents more clearly though EUCCC were not found. This excavation revealed the presence of Painted Grey Ware along with Plain Grey and fine Red Wares, spindle-whorls and a clay object fixed with beads of stones in mosaic pattern in period I. Though, structures were not encountered still mud floors with post holes provided an index to housing. Mud bricks were also known and a broken burnt brick (22 cm x 6.25 cm) was noticed along with the objects of copper and iron. The period II started with N.B.P. Ware along with the evidence of burnt bricks and mud floor with multiple ovens. The other associated antiquities of the period are copper rings, nails, pins and remains of iron fragments. The period III revealed the house plan of burnt brick structure along with Panchala, Kusana and the coins of Achyu. Thus, in the light of both the excavations, the material culture of the site reflects one of urban development with the late phase of P.G. Ware itself.)

So far Kausambi is the only site revealing the presence of coin in PGW level datable to circa 885 to 815 B.C. The occurrence of EUCCC in PGW level, much earlier than NBPW and the PMC is not represented at any other site excavated so far and therefore, the evidence available at Kausambi cannot be used for any generalisation related with the earliest occurrence of the coinage. However, the material culture reflected throughout the period of occurrence of the EUCCC at the site is of an urban nature along with the structural remains, tools and weapons particularly of iron. Thus the circulation of EUCCC at the site is within a material culture where widely divergent economic activities of people is reflected from the making of bricks, pottery, terracotta figurines to technologically developed industries like those of iron tools and weapons, ivory carvings, seal incgravings, etc.

The site of Bhita situated near Kausambi presents structural remains starting from Mauryan period upto the Gupta period. The remains of the houses unearthed in the excavations have been named on the basis of the inscribed seals etc, found in the houses or in its foundations. The EUCCC is found at the site above the Mauryan level

42 Ibid, pp 45-56
in an urban context. Antiquities like clay moulds, inscribed seals, terracotta figurines of archaic types in the earliest levels and a number of metal and stone objects reveal that the site witnessed urban character possibly with a break before the advent of the Kusanas. The house plans and the settlement pattern of the different periods reveal the character of a city with some of the houses described as shops in the report on the basis of their construction of rooms in a row facing the street with varanda in the front (Building Nos 12 and 13). Though, the site is situated near Kauśambī, its antiquity does not seem to go beyond the Maurya period. Most of the antiquities found at the site including EUCCC are from first-second century B.C. levels. However, so far as the character of the site is concerned it reflects a developed urban settlement with regular house plan equipped with all available facilities including brick-well.

The site of Sringberpur also presents a somewhat similar cultural context with the use of burnt brick structure in mid circa 300 B.C. levels. But a major

44 n. 3, 1977–78 (Typed copy)
cultural difference between Sríngberpur and Kauśāmbī lies in the fact that while at Kauśāmbī NBPW is preceded by PGW, at Sríngberpur it is preceded by burnished grey ware, black and red ware and Black-slipped ware. The occurrence of baked brick in mid circa 300 B.C. levels indicate a similarity between Bhita structural details and the site of Sríngberpur. The detailed report of the Sríngberpur site is not available. Still the available information reveals the urban cultural context of the site.

At Rajghat, the EUCCGs appear in the mid level of period I.C (circa 400 - 300 B.C.) in association with coarse-Grey ware, Red ware, Black-and-Red ware, and NBPW with deterioration in its quality. The moulded terracotta plaques, showing standing female figures were also found in the period. The structural details found in this sub-period (I.C) include a mud wall with a flooring and terracotta ring-wells. But in the sub-period I.B (Circa 600 - 400 B.C) existence of a wooden plank up to a length of 34 m. indicates that the structure possibly served as a wooden platform during the first structural phase of this sub-period and in the

second-structural phase of this sub-period 'a massive clay embankment was built as a measure against recurring flood in Gangā' along with the construction of a channel or ditch connecting Barā and Gangā. Thus the structural activity in period I.B, preceding the appearance of EUCC (in period I.C) reflects a developed cultural context. The houses of Period I were made of reeds and bamboos as the presence of mud plaster with reed impressions along with a mud wall with regular mud layers and post-holes on the floors would suggest. But in the period II (Circa 300 B.C. to A.D. 100) also associated with the occurrence of EUCC, burnt-brick houses along with mud bricks came into existence. In almost every structure post-holes were found indicating the purpose of posts for supporting the roof. The average site of the rooms during the two structural phases of the period II is not very large, of phase I being 2.56 m x 2.26 m, and Phase II being 1.90 m x 2.92 m. The houses also had sanitary arrangements, some times in form of soakage jars with perforated bottoms and in other

46 Ibid.
47 Ibid, p.23
cases soak pits made of terracotta rings. Period II is associated with coarse grey ware and red ware as the main ceramic industry. Though, the ceramic industry seems to have witnessed a decline, still a large number of terracotta animal figurines mostly in red colour and human figurines along with dabbers, discs, rattles cones and ear-ornaments reveal the industrial output of potter's industries and clay modelling. At Rajghat Period I reveals a process of change in the cultural context towards urban character. Period I A and Period I C are the two sub-periods of totally changed material culture as the evidence of terracotta figurines, structural activity, ceramic industry and use of coins would suggest. But both the sub-periods (I A and I C) are represented in the antiquities found in the intermediary sub-period I B except for the occurrence of coinage. This process of change become apparent in period II at the site which reflects an already developed urban cultural context. Thus period II produced a qualitative change in the material culture and the area of settlement increased as was evidenced by the find of remains of this period over a considerably wider area. The EUCCC appeared at the

48 Ibid, pp. 27-28
49 Ibid, p. 26
site during the initial phase of urban development and a vigorous urban activity is noticed in second period of its circulation. This may also suggest the effective role of EUCCC in the process of change towards urban development.

The EUCCC and PMC appeared at Sohagaurā along with NBPW in period III. At the site the other ceramic industry was characterised by Grey ware, Black-and-red ware, Black-slipped ware and Red ware. The period III seems to have witnessed in its early phase a large scale conflagration as suggested by the fallen debris of a structure. However, the collapsed material indicates that the walls of the houses were constructed of bricks and the ceiling of wooden beams and batons over which kneaded clay mixed with husk was spread. The other antiquities of the period are terracotta inscribed sealings, copper-hooks, rods, nails, iron arrow-heads, bone-styli, beads, etc. 50

Thus, the EUCCC appear at the site along with NBPW and continues in circulation in an urban cultural context. 51

50 n. 3, 1974 - 75, pp. 46-47
51 The EUCCC were also found at the site in period II during 1961-62 excavation which is representing early phase of the period III of 1974-75 excavation. (n. 3, 1961-62, p.56)
The BUCC and PMC found at Sravasti are from period II (Circa 300 B.C to 50 B.C) characterised by Red ware and coarse grey ware with extensive use of iron. In this period houses of burnt bricks and re-used bricks along with ring wells were encountered. The characteristic feature of the period lies in the construction of defence in three phases with mud ramparts, topped by fortification wall of burnt bricks some time after the construction of the original rampart. Presence of lumps of raw stones and unfinished beads suggests, industrial activity at the site. 52 However, period I (550 B.C. to 300 B.C.) at the site representing NBPW and PGW is associated with incised designs of sun symbol and Swastika and use of iron, though copper is the chief metal used in bangles, ear-rings, pins and borers. 53 Thus the coin seems to have at the site in the mature phase of its urban development.

At Jajmou, also the BUCCs were found along with the appearance of urban characteristics in period I (Circa 300 B.C.) represented by NBPW, terracotta 'Dampatiplaque', sealings, ivory seals with Brähmi legend in character of

52. K.K. Sinha, Excavation at Sarvasti, 1957-59, pp.8-12
53. Ibid, pp.7-8
Circa 300 B.C. The structural activity of this period is represented by the occurrence of two parallel walls of baked bricks 2.20 c.m. in width. 54

Thus, it becomes clear that the EUCCC appear along with the urban characteristics and usually associated with NBPW. The only exception to this seems to be the site of Kauśambi where the EUCCC have appeared in the PGW level.

At the site of Purāṇa Qilā in Delhi the EUCCC appeared in period I (Circa 300 B.C). 55 In earlier excavation conducted during 1954-55, the NBPW level represented by period II (600 B.C to 200 B.C) is also characterised by the occurrence of EUCCC and PMC. In this excavation building activity of this period is revealed by the occurrence of terracotta ring-wells probably used as soakage or refuse pits and kiln burnt bricks. 56 However, it seems that the period II of the earlier excavation (1954-55) is corresponding roughly with the period I and II of later excavation (1969-70) representing

54 n. 3, 1975-76, pp 52-53
55 Ibid, 1969-70, pp 4-6
a cultural context up to Sunga period. It becomes clear that the EUCCC circulated at the site during NBPW period appearing around Circ 300 B.C as the later excavation would suggest and lasting up to Sunga period prior to Kusãñas, Mathurä Kings and Yaudheyas. The antiquities recovered at the site in period II of both the excavations represent a material culture of urban nature. Thus it may be concluded on the basis of the finds that the site presented an urban character during NBPW phase. However, PGW level also reveal rich antiquities particularly copper objects like sickles, nail p•apers, antimony rods, etc. 57 The black-slipped ware and black and red ware is absent at the site, preceding the NBPW phase, suggesting that the original inhabitant of the site were PGW people. So far as the cultural context of EUCCC is concerned, it seems to have appeared at the site during the initial phase of NBPW in the region coinciding with the appearance of urban characteristics.

In Haryana, at the site of Sugh the EUCCC appear along with NBPW and brick-built houses with drain pipes and soak-wells of terracotta in period I B (Circa 500 B.C. to 100 B.C) 58 Thus the settlement pattern in the

57 Ibid, pp 13-14
58 Ibid 1965-66, pp. 35-36
use of drain-pipes and soak-wells reflect an urban characteristic during the period. The other antiquities at the site represented by iron and copper objects, terracotta animal and human figurines, beads of semi-precious stones, ivory points, soap-stone casket coupled with PMC (Silver), Indo-Greek, and inscribed cast coins suggest intense economic activity during the period. However, the industrial aspect of the site is attested in the next period II (Circa 100 B.C to A.D. 500) in the finds of a large number of crucibles suggesting the existence of a metal working industry. The EUCCC were also found in period II. Thus it seems that at the site EUCCC appeared with NBPW succeeding the late phase of PGW and emergence of iron technology.

At Rupar in Punjab, also the EUCCC appear along with NBPW in period III (Circa 600 B.C to 200 B.C) succeeding the PGW culture. The structural activity of the period III is reflected in the occurrence of a 12' wide brick wall upto a length of 250' consisting of more than 12 courses of bricks, 'apparently an enclosure of some important edifice'. The coin remained in circulation

59 Ibid, p.36
60 Ibid 1953-54, 'pp.6-7 Plate V.C
also in the next period. Thus at the site an urban settlement is reflected during the period of its appearance. The sanitary arrangement seems to have consisted of deep soakage wells lined with burnt rings of clay, and once a soakage well was full another was dug up nearby. The other antiquities found at the site also reflect wide range of occupational activities such as - a fine broken stone disc carved minutely, broken upper end of a bronze object with figure, ivory-comb, carved handle, dice, styli, and seals inscribed in Brāhmī and toys of backed clay, carts, animals and birds. However, no traces of such developed settlement is reflected in period II characterised by PGW and it seems that the site present an early phase of PGW with a break in occupation between the two periods II and III. The cultural context of the distribution of EUCCCs at the site reveals a general uniformity in the locality, appearing at the sites along with urban characteristics which is preceded by the PGW people.

In Rajasthan at Noh the EUCCCs appear along with NBPW and terracotta animal and human figurine, copper

-----------------------------

61 Y.D. Sharma "Past Patterns in living as unfolded in Excavations at Rupar", Lalitkala, 1955-56, No.1 and 2, pp.121-129
bangles and rings. The iron technology at the site seems to have preceded the emergence of NBPW, in the form of weapons like spear-heads, arrow-head with a leaf shaped point and a socketed tang and an ax with a broad cutting edge.\textsuperscript{62} The structural activity is characterised by the occurrence of mud bricks\textsuperscript{63} drains of baked bricks and ovens\textsuperscript{64} suggesting the urban nature of the settlement. However, in the next period represented by Sunga and Kusāna antiquities, eight structural phases were recognised, characterised by the use of burnt-bricks, mud-bricks, covered drain and well preserved four armed and two armed hearths.\textsuperscript{65} In this period also the EUCCCs remained in circulation probably in its early phase. The appearance of EUCCC along with NBPW at the site is in a settlement reflecting urban nature. In fact, PGW level, preceding the NBPW level with an overlap of the two cultures, reveals a developed technology in iron manufacturing particularly weapons. Thus with an overlap of the both the wares at the site it seems that the technological advancement achieved during the earlier period resulted in the transformation of its material culture in the next period represented by NBPW and the occurrence of EUCCC.

\textsuperscript{62} n.31964-65, pp.34-35
\textsuperscript{63} Ibid, 1966-67, pp.30-31
\textsuperscript{64} Ibid, 1968-69, p.25
\textsuperscript{65} Ibid, 1965-66, p.38
At Rairh also EUCCCs were found in a flourishing industrial centre characterised by mud houses with tiled roofs. Burnt bricks of large size were used for the construction of platforms. Terracotta soak wells were also used. Shri K.N. Puri remarks in his excavation report about the character of the site as reflecting an urban settlement. "The chief industry of the town was metallurgy of iron... tools and implements... In addition the artisans of Rairh specialised in the manufacture of polished coloured stone beads decorated with etched patterns, conch, ivory, bronze and statite objects."66 Thus the cultural context of the distribution of EUCCCs at the site is reflected within an industrial settlement.

Beyond Uttar Pradesh towards Haryana, Punjab and Rajasthan via Delhi there are not many sites where EUCCCs occur particularly in stratified layers. However, the few available sites do represent similar index of cultural transformation from PGW to NBPW, iron technology appearing in PGW level itself. Thus the occurrence of this coinage in these areas is preceded by iron technology, evidence of which is not available to the same degree in the sites

66 K.N. Puri, Excavation at Rairh (Jaipur) p.36
situated in Gangelic basin of U.P and Bihar. The development of iron technology in the area, prior to the appearance of EUCCC suggests the cultural context in which the coin appears in the locality as invariably an urban nature.

In Madhya Pradesh at Ujjain the EUCCC appears in period II (Circa 500 B.C to 200 B.C) and also remains in circulation during the period III (Circa 200 B.C to A.D 100). The period II is characterised by the occurrence of NBPW and preceded by black-and-red ware, doubled slipped ware, iron objects like knives and blades, mud fortification and the occurrence of road in period I which reveals a developed settlement of urban nature. In period II a much developed settlement is witnessed with public structures of kiln-burnt bricks, one tank made of square sized bricks probably serving the purpose of a reservoir and a brick canal exposed to a length of 185 feet probably connecting the reservoir with water sources. The period also shows evidence of iron smelting along with iron objects of general use and weapons like arrow-heads and

67. S.C. Ray "The Uninscribed Cast Coins: Their Distribution, Age and Other Issues", JNSI 1967, Vol. XXIX (ii) p.6 (The coins found at the site in excavations (1955-56 to 1957-58) are not reported clearly in Indian Archaeology A Review).
spear heads both socketed and solid. In the early part of period III working in beads of agate, chalcedony, onyx and other stones was one of the chief industries. Thus all these remains suggest a developed urban character at the site when EUCCCs appeared along with NBPW. In fact, coins appeared at the site in the developed form of urban settlement when industries started playing an important role in the economic activities of the people.

At Kayatha, a site situated in the same locality within an antiquity going back to proto-historic phase, EUCCC appears in the 'early historic phase' represented by period IV, (Circa 500 B.C to 200 B.C). In this period a few sherds of PGW and NBPW were found along with the main ceramic industry of red ware, black-and red ware and coarse red ware. The metal objects found at the site are copper rod with triangular nail head and a clamp round in section. The fragment of an iron spear-head and sickle and a thick rod of iron, round in section were also found. The structural activity of the period

-------------------------

68 N.R. Banerji "Excavations at Ujjain" Indoegen Tagung (Delhi 1959) pp.74-76
70 Ibid, p.151
was characterised by the use of burnt bricks. The coins also continued in the next period (V) characterised by "a large structure consisting of several rooms with a bath room having arrangements for draining out water, a burnt brick wall and foundation of a wall built of coarse rubble set in mud mortar". The site was reoccupied in period IV in which the EUCCCs appeared at the site, after a long gap of about seven centuries by people trained in metal and clay working as is suggested by a large number of finds which reflect urban cultural context. A somewhat similar metal working activity is reflected at the site as noticed at Ujjain, though the settlement does not represent comparable urban advancement.

71 n. 3, 1967 - 68, pp.24-25
72 Ibid p.25
73 N. 69, P.8
74 In the excavations conducted by Shri VS Wakanker at the site, a number of EUCC were found. In this excavation were also found PGW in the levels overlapping with the occurrence of NBPW. The report published in The Vikram, 1969, (Vikram University journal) could not be consulted due to its nonavailability which could have provided more details for the study of comparable urban development with Ujjain.
At Tripuri in the excavation during 1952, EUCCC was found in stratum III (Circa 300 B.C to 100 B.C.), layer 5, associated with Buff slipped ware and Red glazed ware, preceded by the NBPW in association with Buff slipped ware. In stratum III mud brick houses with stone foundations reflect their building activity.\(^7\) In subsequent excavations at the site, the EUCCC are found associated with the late phase of NBPW, fine Red ware with shining surface, Black and red ware, Coarse Red ware and whitish slipped ware.\(^7\) Thus it becomes clear that the coins at the site were preceded by the presence of NBPW. However, at the site PMC and 'Tripuri' inscribed cast coins also appeared earlier than the EUCCC. The building activity at the site during this phase is reflected by the use of baked bricks, tile pieces and ring-wells, undressed stones used in the foundation of the walls.\(^7\) Iron objects, figure of a bull in copper, rammed mud floors and fire pot along with fragments of tile pieces seem to have preceded the occurrence of coinage at the site.\(^7\)

---

75 M.G. Dikshit, *Tripuri 1952*, p. 129
76 n. 3, 1966-67, p. 17-19
77 Ibid.
78 Ibid
Details of the associate finds of this period characterised by the occurrence of coinage are not available from the subsequent excavations conducted during 1966-67, to 1968-69. But it is clear that the coin appeared at the site in late phase of NBPW characterised by brick structures with stone foundations. This reveals the character of its material cultural as urban but diverse economic activity is not fully reflected in the available reports, as the antiquities mentioned are without proper reference to their respective period of occurrence.

At the twin sites of Meheshwar and Navadatoli, the EUKCCs appear in early historic period IV (Circa 400 B.C. to 100 B.C.) associated with NBPW, red-slipped ware and the Black-and-Red ware. The structural activity of this period (IV) is attested by the remains of a Stupa found at Navadatoli, made of bricks, some inscribed in characters of Circa 300 B.C. The other antiquities at the site consist of terracotta birds, animals, discs, votive tanks, skin-rubbers, copper rods, curved wire pieces, needle with one end painted and other thick and perforated, iron arrow heads - leaf shaped and tanged, and a unique type of hoe.


80. Ibid.
A glass seal with symbols similar to those found on EUCCC and PMC and bone, ivory and stone objects was also found. All these remains suggest that at the site EUCCCs appeared in an urban cultural context along with NBPW. The NBPW, however, is not the main pottery of the period as only 20 sherds were found which suggest its arrival at the site probably from the Gangatic valley. The diversified use of iron at the site also suggests a developed material culture. The existence of stupa may also suggest the religious significance of the site.

In continuation of the sites of Madhya Pradesh this coinage has also been found in Maharasthra. At Kaundanyapur the EUCCCs along with PMC are found in period III dated between circa 300 B.C. to 100 B.C. in association with NBPW. "this phase marks the first emergence of coins and sophisticated jewellery in the form of elaborate beads and ear-plugs". The occurrence of square barrel crystal beads, the disc shaped short cylinders and ear-rings and polished jasper etc suggest a developed cultural context at the site.

---

81 Ibid.
82 M.G. Dikshit, Excavations at Kaundanyapur (Bombay, 1968), pp.27-28
At Pauni also the EUCCCs associated with NBPW and PMC appear in the early phase of Jagannath Tekdi Stūpa (Circa 300 B.C. to 100 B.C.) complex. The early phase of the stupa reveal elaborate pradakśina paths made of lime and mica flakes flanked with wooden posts, the railing and the gateways, sunga sculptures, art motifs and inscriptions in early Brāhmi characters. The ceramic industry of the period is represented by NBPW, black-and-red ware, and slipped and unslipped red ware. The EUCCCs were also found at Chandakapur Stūpa (Circa 100 B.C. to A.D. 200) which was probably erected in the late phase of Jagannath Tekdi Stūpa. The site reveal an urban cultural context of religious significance.

At Nasik the EUCCCs are found in layer IV associated with NBPW and Black-and-Red ware in period 'early historic B.II' (3rd and 2nd century B.C.). The structural activity of the period is revealed by the occurrence of mud wall houses with ring wells and soak pits. "The walls were made of brownish clay and an even firm floor of green murm. This rested right on the black-soil, The roofs of these huts were probably supported by wooden poles and

---

83. S.B.Deo and J.P.Joshi, Paunj excavations, 1969-70 (Nagpur.1972) p.21
84. Ibid. p.96.
rafters. But whether it was covered by tiles, kept in position by iron nails cannot be said, for though, no such tile was found a number of long nails were recovered at this depth". Thus the discovery of a large number of iron nails and use of ring-wells and soak-pits may suggest that the settlement was of an urban nature though no brick structures were encountered.

The other antiquities of the site include copper and iron objects, terracotta skin rubber and wheels, stone objects and beads. These suggest diverse economic activity of the people in field of metal working, pottery, stone, and beads.

Similarly at Nevasa the EUCC appears in period IV (Circa 150 B.C. to 50 B.C.) and remains in circulation in period V (Circa 50 B.C. to A.D. 200) also. Period IV is associated with the appearance of NBPw, Black-and Red ware and coarse red ware coupled with multiple use of iron in day-today life. The diversified use of iron in tools, weapons and utensils suggest the cultural context of the site and indicates urban growth. The site Nevasa represents the south-western limit of the occurrence of this coinage in India.

86. Ibid p.21
87. Ibid p. 7
88. HD Sankalia, SB Deo, ZD Ansari & Sophie Ehrhardt, From History to Pre-History at Nevasa, 1954-56 (Poone, 1960) p.64-70.
The comparable south-eastern boundary in Sisupalgarh in Orissa where the uninscribed copper coins occur in Period II (AD 50 to 125). The site presents a fortified city much earlier than the occurrence of uninscribed copper coins. "The defences were erected at the beginning of the second century B.C. In Phase I they consisted of a clay-rampart some 25' high and over 10' wide at the base; in phase II, a 4-6' thick covering of laterite gravel was added on to the top of clay rampart, while phase III and IV the clay-filling was retained by baked brick revetments on either side." Period II represented by layers 20 to 7 is divided into two sub-periods A and B. The sub-period II A (Layers 20 to 11, in which uninscribed copper coins occur) present the first occurrence of rouletted ware. Thus the circulation of uninscribed copper coins in Period II A is coupled with the presence of rouletted ware which reveals Roman contact at the site. The antiquities found of this period (II A) presents the 'Sisupalgarh culture in its full bloom'. The bright Red-polished

---

89 B.B. Lal "Sisupalgarh 1948: An early historical Fort in Eastern India" Ancient India, 1949, No.5, p.97
90 Ibid, p.67
91 Ibid, Fig. 2, p.69
ware was predominant. Black and red ware also appeared at the site in the beginning of this period. Structures constructed of large chiselled laterite blocks have been noticed without, however, the details of plan. Ringwell surmounted by stone-slab was also noticed.\(^9^2\) Period II B characterised by the occurrence of Kusāna and imitation Kusāna coins showed a stage of decline and transition in Sisupalgarh culture.\(^9^3\) As such it becomes clear that the uninscribed copper coins appear at the site in the late phase of period II A preceded by Rouletted ware's emergence. The cultural context during the appearance of this coinage is represented by an urban settlement 'in the full bloom of the cultural occupation of the fort', the site being of some politico-administrative importance.

The study of the cultural context at different sites throughout the area of its distribution has revealed mainly three features:

1. The emergence of EUCCC at all the sites is in association with NBPW, which however, always precedes the occurrence of this coinage.

\(^{92}\) Ibid p.68

\(^{93}\) Ibid
The gap in the appearance of the ware and coins varies from locality to locality or site to site. But in most of the cases the gap is negligible as both emerge in the same period. The exception to this is the site of Kauśāmbī. At Kauśāmbī the BUCCs appeared in PGW level, preceding the appearance of NBPW. As Kauśāmbī is the only site with the occurrence of coinage in PGW level, it is not possible to deduce anything from it, particularly when the sites situated in the same locality, such as Śrīṅgberpur and Bhita do not seem to conform to Kauśāmbī evidence.

2. Its presence seems to be coupled with the characteristic development in the material culture reflecting urban growth at all the sites. However, here also sites in different localities reflect different traits in their background and this coinage appears in different stages of their transformation.
Though it seems to occur with PMC in most of the sites, still it emerges as an independent coinage and not as playing a secondary role in the currency system of the area. In fact a large number of sites show less number of PMC which lasts comparatively for a short duration. This reveals the prime importance of EUCCC in the area during its period of circulation. But this aspect needs a more serious investigation of the comparative occurrences of both the coinages and the area and period of distribution.
3. **Pattern of Distribution**

The study of the cultural context at different sites suggests that the pattern of distribution of EUCCC can conveniently be divided into four zones on the basis of the two observations made earlier, i.e., its association with NBPW, and its appearance at different sites in different stages of their transition from rural to urban. The spread of EUCCC in a vast area suggests a 'uniform pattern of copper currency' and 'a close association perhaps of political and definitely of a commercial nature'.¹ This is basically revealed by the different stages of cultural development at which the coinage reaches a particular zone. This is also supported by the evidence of NBPW.

At most of the sites in Bihar this coinage appears in the beginning of the cultural transformation from rural to urban development. The sites like Sonpur and Chirand present a picture of transition in the first phase of its occurrence, which seems to be well established in the next period. At Sonpur the use of ring-wells as refuse pits, occurrence of a large number of beads and

¹ S.C. Ray "The Uninscribed Cast Coins: Their Distribution, Age and Other issues", JASI 1967 Vol. XXIX (Part II) p.16
and extensive use of iron reveal its urban nature at the point of emergence of EUCCC. Similarly at Pātaliputra and Vaiśāli the EUCCCs occur in the initial stage of urban development at the sites. At all the sites in Bihar the NBPW is in its fullness at the point of emergence of EUCCC.

At Rājghāt in eastern U.P. the coin appears during the declining phase of NBPW. This phase, however, is preceded by the occurrence of wooden planks, used probably as platform. Thus, at Rājghāt while the coins appear after considerable gap of the occurrence of NBPW, it seems to have accelerated the pace of cultural transformation. The period II immediately succeeding the appearance of EUCCC witnessed the urban characteristics in fully developed form. At Śrāvasti also a similar cultural index is witnessed by the EUCCC appeared in the next period of the appearance of NBPW and this period is comparable with the period III of Rājghāt.

Similarly at the sites of Bengal (Bāṅgarh, Chandraketugarh, Tāmluk and Mahāsthāṅgarh) the EUCCCs along with the NBPW are found during the initial stages of transforming cultural context and thus correspond with the sites
of eastern U.P. and Bihar. At Bānagarh the EUCCs appear in Stratum V along with NBPW accelerating the pace of urban development which is apparent in the antiquities found of stratum IV. At Chandraketugarh also the EUCCs appear along with NBPW and in the next period a developed urban cultural context is reflected at the site.

Thus it becomes clear that this coinage makes its appearance in the corresponding stages of cultural development, in Bihar, Bengal and eastern UP. In this locality it appeared during the transition to urban character which gives an impression of causal relationship with urban development. But such causation has not been established and the coinage may be an outcome of growing economic activity of the people. The transforming cultural index of the sites in Bihar, Bengal and eastern UP roughly reveals a similar picture and therefore it may be called as zone-one of the area of its distribution.

Some important aspects in the settlement pattern, making of terracotta objects and extensive use of iron invariably characterise its (EUCCC) appearance at different sites in western UP., Delhi, Haryana, Panjab, Rajasthan and part of Madhya Pradesh. Therefore, the sites situated in this locality may be considered as representing zone-two of its area of distribution.
While in zone-One the EU CCC seems to have contributed in the transformation process, in zone-two it appears as a consequence of such developmental process. In Western U.P. appearance of NBPW and EU CCC seems to be simultaneous as the gap between the emergence of pottery and the coinage is negligible. The EU CCC probably reached these sites in an already changed or at the beginning of the changed cultural context. At Hastināpur the NBPW and EU CCC appear in an urban cultural context and there does not seem to be any gap between the appearance of the two. (Only a few sherds of NBPW were found below the occurrence of PMC and EU CCC in the same layer of period III). At Mathurā and Sonkh also a somewhat similar stage of cultural development is reflected. While at Mathurā the sub-period II does not present much evidence of urban characteristic in which the coin appears, the next sub-period III reveals a transformed occupational activity of the people from sub-period I. Thus period II which is divided into three subperiods reveal the appearance of EU CCC at the beginning of the changed cultural context of urban nature. Purāṇā Qilā site in Delhi also can be said to be similar in this context to Hastināpur, Mathurā
and Ahichchhatrā. At Purāna Qilā the appearance of EUCCC is in a cultural context represented by Kiln-burnt bricks, terracotta ring-wells used as refuse pits and diversified use of copper. However, the transformation in cultural equipment seems a little pre-mature at Purāna Qilā during the appearance of EUCCC and NBPW than at Hastināpur.

A similar cultural context is also reflected at the sites of Sungh, Rupar, Noh, Ujjain and Kayatha. At Sugh the EUCCCs appear along with NBPW in an urban cultural context characterised by brick built houses, with drainpipes and soak-wells. The iron technology was already known at the site in PGW level itself. Thus it is clear that the EUCCC appeared in an already transformed cultural context. Similarly at Noh in Rajasthan also the emergence of EUCCC and NBPW is preceded by the occurrence of iron technology in PGW level in the form of weapons like spear heads, arrow head, axe, etc. In Madhya Pradesh at Ujjain and Kayatha the emergence of EUCCC and NBPW is in the developed form of urban settlement characterised by iron technology and when industries started playing an important role in the economic activities of the people.
At all these sites in zone two the NBPW and the EUCCC appear almost simultaneously in an already transformed cultural context and the presence of this coinage is preceded by developed iron technology of the area.

The third zone of its distribution area on similar basis seems to include sites of Maharashtra and part of Madhya Pradesh. In zone three the appearance of NBPW and EUCCC is simultaneous except at Tripuri. But in this zone the appearance of EUCCC and NBPW is in the mature phase of developmental process. In this zone the cultural contents do not reveal any apparent process of change at the point of the appearance of the two (EUCCC and NBPW) The diversified use of iron suggests that EUCCC and NBPW reached the area when iron became a thing of common use. At Nasik a large number of long iron nails were found, suggesting their use in roofing to hold the tiles in their position. Similarly at Nevasa, Maheshwar and Navadatoli the diversified use of iron in tools and weapons, suggests a mature cultural context. At Pauni, Maheshwar and Navadatoli, the existence of stūpa in the period characterised by the appearance of EUCCC and NBPW indicates a marking stage of development and the religious significance
of the site. Thus at Navasa, Nasik, Paunimagh Maheshwar and Navadatoli the cultural contents do not reveal any process of change at the point of the appearance of EUCCC and NBPW. At Tripuri a site situated in this zone, the EUCCC appears during the late phase of NBPW at the site. However, here also the material culture is reflected in an already established stage. It seems from the available evidence of the occurrence of 'Tripuri' coins and PMC in the earlier level than EUCCC that the latter played a secondary role at the site. This is also suggested by the fact that the site presents its own inscribed cast copper coins. Thus it becomes clear that in zone-three the EUCCC and NBPW appear in the mature phase of urban development of the period.

Sisupalgarh in Orissa does not correspond with the already established zones, and here the EUCCC seems to have been preceded much earlier by a few sherds of the NBPW. The coin here is associated with Rouletted ware in the mature stage of urban development. In fact the uninscribed copper coins appeared at the site in a different cultural context starting with Indo-Roman contacts. However, it seems necessary to add here that the uninscribed
copper coins found at the site do not come strictly under the classification of cast coins and are of doubtful attribution. The site of Saradkel in south Bihar seems to be identical with this site, so far as the late occurrence of this coinage is concerned. At Saradkel the appearance of EUCCC has been preceded by the development of an iron smelting industry, which continues during the period of its distribution. This site also reveals a fortified settlement and roughly is of the same period as that of Sisupalgarh. Thus these two sites may be bracketed in zone-four, though with marked cultural difference.

The pattern of distribution of EUCCC thus shows that it reacted different areas at different points of cultural development. In zone-one it seems to have contributed to the developmental process towards urbanism. In this zone the 'youthful NBPW' is invariably associated with its (EUCCC) appearance. Thus the appearance of EUCCC in zone-one gives an impression of causal relationship with urban development while in zone two the EUCCCs appear along with NBPW in the changed phase of cultural context where iron technology was already in use and was preceded
by the PGW people. In zone three a more diversified use of iron is revealed at the point of its emergence. In this zone the cultural context reveals a mature phase of urban development characterised by the construction of stupa etc. In zone four a different cultural context is reflected at Śiśupālagām starting with Indo-Roman contacts immediately after the appearance of EUCCC. Thus it becomes clear that the EUCCC appeared throughout the area of its distribution at different points of urban development. This suggests that probably EUCCC originated with the beginning of urbanism, and spread in different localities later on.

The urban development began with the advent of iron technology and the EUCCC appeared in successive zones in a respectively developed technological context. This may suggest that trade and commerce were probably mainly responsible for the spread of EUCCC in different localities. Trade and commerce throughout the entire region developed later on probably coinciding with the emergence of Mauryan empire.