Chapter III

PERIOD OF CIRCULATION*

THE period of circulation of EUCCC is more often bracketed together with PMC which seems to have originated around Circa 600 B.C. But such datings are based more on the physical study of coins than archaeological dates given to these coinages at different sites. Archaeological dates provide for a more scientific base for determining the period of circulation of EUCCC in different localities. However, it is also based on two major dating factors:

Firstly, the dating at most of the sites are based on the date of the period of its occurrence and these do not suggest or reveal the precise date of its appearance at the site. There are, however, few sites where lower, middle or late levels have been indicated as the point of its emergence like Pātaliputra, Sonpur, Vaiśāli, Hastinapur, Sonkh and Ahichchhatra. Thus such indications in terms of levels have been roughly utilized by dividing the period into two or three parts as the case may be for identifying lower, middle and upper levels. This may not be the most scientific observation yet is is probably the best within available information. At site where

* See the plate Nos.I and II
even such indications are not available, a precise dating is very much difficult to work out. Secondly, the EUCCCs occur at almost all sites in association with NBPW, the dating of which is not sufficiently clear in all localities. Though a time gap has been permitted for the travelling of the ware from its nuclear zone, still such gap is not based on a uniform measurement for its occurrence at different sites. Attached with this is the role played by PMC and EUCCC in determining the date of the period at different sites. The PMC copper of heavy type particularly have been found to occur in levels between Circa 200 B.C to A.D. 300, at Sonpur, Vaisali, Chirand and Pataliputra which otherwise has been catalogued by John Allan to belong to Mauryan period. This particular variety of PMC is assigned to Mauryas on the basis of symbols. This reflects that there may have existed a relative time-gap between the appearance of a particular coinage and its origin at the site. Such considerations are lacking in establishing

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2 John Allan, *Catalogue of the Coins of Ancient India* (Delhi 1975) p. LXXIX and pp.110-16, plate XII: 10-12 and XIII.
the chronology of a site with the help of numismatic evidences in excavations. Thus, with certain limitations of available archaeological dating, the period of circulation of EUCCC can be established, though without going into the details of its origin in a zone. The dating of the period does not exactly correspond with the date of the levels in which the coins occurred. As such, only a broad dating of its circulation, mainly based on the dating of the period, is possible here to be determined. A closer attention to its occurrence in excavations may reveal further detail of the period of its circulation.

As it travels along with NBPW, outliving the wares' life may suggest that its introduction emerged from a particular locality which should be identified with the nuclear zone of NBPW. Here it may be added that since the coin emerged in different zones with uniform set of development in the cultural context a single authority might have been responsible for its introduction throughout the area. This may well correspond to the large Empires of Nandas, Mauryas and Sungas covering this area. However, after the break-up of the Empire, some types emerged in different localities, though for a short period, subsequently
giving way to the inscribed cast copper coins of local types known as 'Tribal' Coins.

Details of dating are available only for a limited number of sites. In zone one the sites with such details are Pātaliputra, Sonpur, Vaiśāli, Rājghāt, Tamralipti and to some extent Chirand, Champā, Balirājgaṇh, Śrāvasti, Chandraketugarh and Piparahwa. At the site of Sonpur the EUCCCs appear in the early level of period II datable to circa 650 B.C. to 200 B.C. It continues to occur in the next period (III) also dated up to A.D. 200,3 though it occurs more prominently in period II itself. Thus broadly it seems that from 6th century B.C. to A.D. 200 the coin was in circulation at the site. The earliest occurrence is in early levels of period II while PMC appears in the late level.4 One Die-struck coin is also reported from early levels of Period II.5 The EUCCCs found in period II are of both squarish and round shape, which continue in period III. But the PMCs of copper do not

3. n. 1, pp. 8 - 13
4. Ibid, p. 90, S.No.1, Plate XXII.‡
5. Ibid, p. 94, S No.16, Plate XXII-16. (This coin is identical with the coins found at Rajgir and discussed by Ajit Ghosh as cast coins in JNSI, 1939, Vol.1, pp.5-8 and as single-die coins by S Singh Roy, in "The Coins of Rajgir", Numismatic Supplement No. XLVI (329) p.11
appear in period II. It has been found in period III dated from circa 200 B.C to A.D 200 along with silver coated PMC almost corresponding with the silver coin found in period II, in details of the symbols. The EUCOC found at the site is much more in number than the PMC of silver, copper and alloy. Its continued occurrence in sufficient number seems to suggest that this coinage was more prominently in circulation than PMC and also that it appeared at the site earlier than the PMC. All these indicate that the EUCOC found in excavation originated at the site during the early level of period II which can be dated to the emergence of the Mauryan period and not later. It remained in circulation till the early levels of period III, surviving also in subsequent levels.

At Pataliputra the EUCCs are found in period I and in the lower levels of period II, a few also surviving in the late levels. Period I is dated to circa 600 B.C to 150 B.C. while period II goes upto A.D. 500. As is

6 Ibid, pp. 92-93
7 Ibid, p. 91
8 Ibid, pp.89-98 (68 EUCCs were found at the site; 39 in stratified layers while only 25 PMCs were found 8 in stratified layers).
stated in the report "the Uninscribed Cast Coins were found in association with Punch Marked Coins (from the mid level of period I) and continued down to the lower level of period II, though a few pieces also survived in the upper level of period II".¹⁰ This suggests that the EUCCC was in active circulation till first century A.D, while its survival up to A.D 300 is also indicated. Since the periods of its occurrence covers a long span of time, i.e between Circa 600 B.C. and A.D. 500, the occurrence in late levels should be regarded as survival and not as active circulation. It seems a bit unlikely that the coin could have remained active along with the Kusāṇa and Gupta coinages of the late period. The earliest occurrence in the mid level of period I indicates its origin round about circa 400 B.C. along with PMC which did not survive after the lower level of period II. The precedence of one over the other is not revealed at the site as both the coinages (EUCCC and PMC) are reported to be found together. But at the site EUCCC was probably more prominent in circulation as it occurs in larger number than PMC. This aspect becomes more clear in Kumarāhar

¹⁰ Ibid, p. 48
excavation. In this excavation about twenty PMC of silver were found in period II, dated between circa 100 B.C. to A.D. 100,\textsuperscript{11} and continued to occur up to the early levels of Kusāna period dated to circa A.D. 150.\textsuperscript{12} But no PMC appeared in period I, while the silver coated PMC of copper circulated in period III\textsuperscript{13} and one of the silver PMC probably a survival, was found in the level belonging to period IV.\textsuperscript{14} But the EUCCC appear in sufficient number from period I dated prior to circa 150 B.C. to Period III dated up to A.D. 300. One coin was found in period IV also dated up to A.D. 450.\textsuperscript{15} Thus sufficient number of EUCCC (72 including four of the Lanky bulltype) found in excavations throughout the three successive cultural periods reveals its active circulation up to 2nd-3rd century A.D. While upper limit of its circulation seems to correspond with the Pātaliputra excavation of 1955-56, the lower limit is not established. The period I has been dated here prior to circa 150 B.C. without as-

\textsuperscript{11} A.S. Altekar and V.S Mishra, \textit{Kumrahar Excavations 1951-55} (Patna 1959) p.19
\textsuperscript{12} \textit{Ibid} p. 86
\textsuperscript{13} \textit{Ibid} p.88
\textsuperscript{14} \textit{Ibid}, S. No. I, p. 86
\textsuperscript{15} \textit{Ibid}, pp. 19, 92-96
signing a beginning to the period. But the antiquities found in period I at Kumrāhar may suggest its beginning with the emergence of Mauvras which seems to correspond with the mid level of period I in the subsequent excavation. Thus at Pātaliputra the actual circulation seems to be from circa 400 B.C. to A.D. 100-200.

At Vaiśāli the EUCCCs occur from period II dated from Circa 600 B.C. to 200 B.C. and also continues in circulation in period III between circa 200 B.C. to A.D. 200.16 A few coins were also found in period IV and V, and the later half of period IV and V may be considered as merely a survival and not of active circulation. The coins of period IV and V are identical so far as the arrangement of symbols are concerned, which may indicate that the coinage represents the local variety of Vaiśāli. However, the coins found in Period V dated after A.D. 600 indicate a survival and not of active circulation. Only three coins of this period were found, two badly corroded and one resembling the coin found in earlier period.17

The PMC occurs in period II but in very limited number,


17 Ibid, S No.82, P. 148 (This coin resembles with S No.78 and the other two coins are S No.51, p.144 and S No.66, p.146)
the only finds being three silver, one silver coated and occur two copper. But the EUCCCs in large number about 32 of which about 14 continued in period III also. But in period III there are only two copper PMCs and three in period V. Thus it clearly indicates that at this site the EUCCCs were more prominently in circulation than the PMC and had a firm hold over the currency system of the area through out the three successive cultural periods. It is more significant that in period IV the PMCs are not encountered while the EUCCC in all probability a local type remains in circulation. Thus it becomes clear that at the site prior to the influence of Kusāṇa coinage the EUCCC played significant role in the currency system and had a firm hold over it. This situation is almost similar to its occurrence at Pāṭaliputra, Kumrāhar and Sonpur indicating that the localities in the beginning witnessed the EUCCC acting as the back-bone of currency system. At Rājgir also the EUCCC appears in period I dated from

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18 Ibid, p.134, S No. 1 to 3
19 Ibid, pp.135, 137 - 147
20 Ibid, pp.135 - 36
circa 300 B.C. to 200 B.C. and continues in Period II and III dated up to A.D.100.\textsuperscript{21}

At Chirand also the coins appear in the period datable from Circa 600 B.C. to the beginning of Christian era and a few remains in the subsequent period characterised by Kusāna coins and antiquities.\textsuperscript{22} The PMCs also appear along with the EUCCCs in the same period, some of them are heavy types of copper, similar to those found at Sonpur.\textsuperscript{23} In comparison with the EUCCCs found at the site about 69 in number, the PMC is represented only by a few coins.\textsuperscript{24} It seems that Chirand also shows the circulation of EUCCC in sufficient number in two successive cultural periods. Thus it suggests that in this locality the PMC and the EUCCC appear along with 'youthful NBPW' and continued in circulation even after A.D.200 roughly surviving up to A.D.300.

Almost all sites in Bihar, NBPW in its fulness is associated with the occurrence of this coinage and, there-

\begin{itemize}
\item \textsuperscript{21} Indian Archaeology - A Review, 1974-75, pp. 10-11
\item \textsuperscript{22} Ibid, 1963-64, pp.6-8; 1964-65, p.7; 1971-72, pp.6-7 1972-73, pp.7-8
\item \textsuperscript{23} Information personally received from Dr BS Verma, the Excavator of the site at Patna.
\item \textsuperscript{24} The author personally examined the coins found in excavations with kind permission of Dr B.S. Verma at Patna.
\end{itemize}
fore, a date for its origin after 6th century B.C. seems more likely. The emergence of EUCCC along with 'youthful NBPW' suggests a date prior to circa 400 B.C. for the origin of this coinage in the area. This date also seems to correspond with the cultural context i.e urban development in Gangatic valley in which this coinage occurs. The fact that almost at every site it occurred in sufficiently large numbers during its initial stage suggests a time gap between its origin and wide spread occurrence. Hence, a date prior to circa 400 B.C. and after circa 600 B.C. in all probability should be fixed as the date of its origin. As far as comparative dating with PMC is concerned the excavations reveal it not to be later in origin than PMC. But that it was more prominent in circulation in the area (Bihar) seems established by the excavation finds.

So far as the earliest occurrence is concerned the other sides of zone I reveal a slightly later date than at the sites in Bihar. At the site of Rajghat it seems to occur in the period I after circa 400 B.C. It appears at the site in Period I.C, belonging to mid level, the sub-period datable to circa 400 B.C. to 300 B.C.\textsuperscript{25} This con-

tinues in period II dated to circa 300 B.C. - A.D. 100 succeeded by die-struck and tribal inscribed coins in period III. 26 At this site PMC is altogether absent. Here it becomes clear that the EUCCC emerged in sub-period I.C characterised by the occurrence of NBPW in late phases datable to circa 400 B.C. to 300 B.C. At Rājghāt the exclusive presence of EUCCC points to its importance in the currency system of the period upto A.D. 100. The exact number of the coins found at the site is not available in the published reports. However, as its appearance at the site has been described as "rich in the yield of several uninscribed copper cast coins", 27 it seems to have circulated in sufficient numbers.

At Sohagaura in period III datable to third-second century B.C. the EUCCC have been found along with PMC, which seems to correspond with the date of its circulation at Rājghāt. 28

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26 Ibid, pp. 22-35
27 Ibid, p.25
28 N. 21, 1961-62, p.56; 1974-75, pp.46-47
At Śrāvasti EUCCCs appeared in the lower level of period II dated to circa 300 B.C. and remained in circulation throughout the period. One coin was found in period III also.  

29 Thus at the site it seems to originate in 300 B.C. level and remain in circulation up to the end of period II dated circa 300 B.C. to 50 B.C.  

30 The remains of period III were found in a very limited area at the site and as its chronology could not be established, the circulation of EUCCC is only reflected up to 50 B.C.  

31 So far as the appearance of PMC at this site is concerned, it appeared in middle levels datable to circa 200 B.C. 

At Tilaurakot also the evidence of occupation is indicated from 6th century B.C. level but the actual evidence of 'coins are available from phase B of period I datable between circa 300 B.C. and prior to A.D. 100'.  

32 At the site altogether 85 coins were found including local struck and cast types with wheel symbol and EUCCC and PMC. The relative importance of one coinage over the other is not clearly indicated, as the large number of finds come

30 Ibid, p.13  
31 Ibid, S No.22, pp.73, 77  
32 D Mitra, Excavation at Tilaurakot and Kodan, (1972) p.15
from rampart filling and pit 1. However, the coins with wheel symbol seem more prominent than others.\textsuperscript{33} So far as the date of its earliest occurrence is concerned it seems to correspond with the date available at other sites in the locality.

At Bāngarh the occurrence of EUCCC and PMC is recorded from 8.90' to 21' below datum line corresponding with stratum IV and V\textsuperscript{34} ascribable to early Sungas or late Maurya phase, as the date of stratum V\textsuperscript{35} Thus the beginning of its occurrence at the site can be placed in the 3rd or 2nd Century B.C.

At Tāmluk also the EUCCCs appear in period II dated from 3rd - 2nd centuries B.C. upto A.D. 100.\textsuperscript{36} However PMCs are not reported from the site in this excavation.

It is important that in exploration at the site in 1921-22 also while three hundred and fifty EUCCCs were found, PMCs were not obtained.\textsuperscript{37} All these may point not to just a chance occurrence but also relative importance of EUCCC and PMC in circulation.

\begin{itemize}
\item \textsuperscript{33} Ibid, pp. 84-89
\item \textsuperscript{34} K.G Goswami, \textit{Excavation at Bangarh 1938-41}, pp.30-32
\item \textsuperscript{35} Ibid p. 33
\item \textsuperscript{36} n. 21, 1954-55, p.20
\item \textsuperscript{37} \textit{Archaeological Survey of India: Annual Report 1921-22.} pp. 74-75
\end{itemize}
At Chandraketugarh the EUCCCs occur in association with PMC and NBPW datable to 4th-3rd centuries B.C. and continues in the period characterised by the ceramic industry of early centuries of Christian era.38

Thus it seems, that in this locality though only two sites are available with limited amount of information, still the period of distribution of this coinage remains similar to the area covered by Eastern U.P and Bihar. The part of Eastern U.P. almost extending to Allahabad, Bihar and Bengal constitute one zonal character with a few variations in the date of its emergence. Sites like Piprahawa, Sirigberpur, Aydhyā and Bāita in U.P. have not been reported with dates and period wise distribution of antiquities. Thus these sites cannot be considered for a more precise dating of its circulation. Kausāmbi in Allahabad district does not come under any classification of the zones established and at the site the coins occur in much earlier period (850 B.C.) than anywhere else.

Thus, the study of its period of circulation in zone I reveals the date of origin between circa 500 B.C. and 300 B.C. At the sites in Bihar an earlier date is

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38 n. 21, 1963 - 64, pp 63-65
reflected suggesting its origin in levels prior to 400 B.C. while in Eastern U.P (Excluding Kausāmbi), Bengal and Nepal it seems to have spread between circa 400 B.C and 300 B.C. This coinage remained in effective circulation in the locality of zone I upto A.D. 100 though sometimes surviving upto A.D. 200 or even beyond.

The relative occurrence of PMC and the EUCCC shows at different sites that EUCCC acted as the back-bone of the currency system. The PMC, though occurring along with EUCCC never preceding it, but at times succeeding it is seem to be less significant than cast coins in number and frequency of occurrence. The argument that probably it acted as and was needed for heavy transactions and was consequently less in circulation,\(^{39}\) appears a hypothetical explanation without supporting evidence. At all sites a somewhat similar relative occurrence is seen including such important centres as Tāmluk, Champā, Chandraketugarh, Rājghāt, Vaiśāli, Sonpur, etc. The site of Tāmluk a famous seaport, has no PMC which shows that EUCCC had a vital role even in heavy transactions of the period. In this locality the EUCCC may thus be considered as the currency of the period

\(^{39}\) n. 16, p.132
after circa 500 B.C. to A.D. 200. It seems to have survived even after the Kusāṇa influence.

Zone 2 is represented by a wider area of distribution of this coinage, covering the western part of U.P., Delhi, Haryana, Punjab and Rajasthan. More than half of northwestern Madhya Pradesh also constitutes a part of this zone. Here the coinage appears in a more advanced stage of urban growth and is preceded by iron technology. However, the coinage itself seems to have contributed to the stabilization of the urban processes. The main sites providing information regarding the period of circulation are Hastināpur, Ahichchhatrā, Mathurā, Sonkh, Purāṇā Qilā, Sugh, Rupar, Noh, Ujjain, Kayatha and to some extent Tripuri.

At Hastināpur the NBPW, PMC and EUCCC appear in period III dated from circa 600 B.C. to early 300 B.C. In period IV datable from early second century B.C. to late third century A.D. also appear coins of Mathura Kings, Yayudheyas and imitation Kusāṇa coins. However, in period IV it seems that both the early coinage PMC and EUCCC remained

40 B.B. Lal, "Excavation at Hastinapur...", *Ancient India, 1954–55*, Nos. 10 & 11, p. 12 A
as a survival and not in active circulation, as only two coins each were found in these levels. On the other hand, in period IV, five of Mathura Kings, six of Yayudheyas and ten imitation Kusåna coins of Vaśudeva were found, which would indicate that these were in active circulation.41 Thus the period of its circulation seems to be from 6th century B.C. to 3rd century A.D., however, the later phases attesting simply its survival. The total number of coins found at the site is 89 of which only 35 could be identified.42 There are only three PMC among the 35 identified coins, while the EUCCCs are eight in number. The earliest occurrence of the PMC is in period III from an early level, of silver43 and the other two, one of silver44 and the other of copper45 come from period IV extending upto mid-level of the period. Thus so far as occurrence of PMC is concerned only one coin occurs in period III and the other two in period IV. But the EUCCCs occur from early level of the period III to the late level of period IV.

41 Ibid, pp. 101-5
42 Ibid, p. 101
43 Ibid, S No. 1, p. 102
44 Ibid, S No. 2, p. 102
It occurs in period III, two in the early level,\textsuperscript{46} three in the later level\textsuperscript{47} and one each in the early and late levels of period IV.\textsuperscript{48} Thus out of the total of eight EUCCs found at the site, a fairly even distribution would show its active circulation upto the end of period III and the beginning of period IV. So far as the emergence of this coinage at the cite is concerned along with PMC, the early level of its appearance would suggest a date prior to circa 400 B.C. which would form the mid level of the period. Thus the site reveals a date identical with the date of zone I particularly sites in Bihar. It remained in circulation upto A.D. 300, probably as a survival after 2nd century A.D. This is reflected by the appearance of Tribal and Kusāṇa imitation coins at the site from the beginning of period IV. However, its active circulation from 5th - 4th century B.C. to 2nd - 3rd century A.D. seems to represent the life span of this coinage in the area covered so far. No doubt at Rajghat, Sravasti, Tilaurakot, etc, the beginning is revealed as 4th-3rd century

\begin{verbatim}
\textsuperscript{46} Ibid. S Nos. 3 and 5, p. 102
\textsuperscript{47} Ibid, S Nos. 1, 2 and 4, p.102
\textsuperscript{48} Ibid, S Nos. 6, 8, p. 103
\end{verbatim}
B.C. which does not seem to be in conformity with its association with NBPW and the available date of Hastināpur. Presently the evidence suggests identical dates at the sites of Bihar and Hastināpur, while the sites lying in between, i.e the area of Eastern U.P. reveal a later date.

At Ahichchhatra a neighbouring site of Hastināpur the EUCCCs were found in stratum VIII (Circa 300 B.C to 200 B.C) and stratum VII (Circa 200 B.C to 100 B.C). The coinage also continued in the subsequent period but along with Pānchāla coins in stratum VI and V datable to circa 100 B.C. - A.D. 100. At this site EUCCC are not found in the level prior to 300 B.C., but appears in the level dated from 300 B.C. and remain in circulation upto A.D. 100. No PMCs have been found at the site.

At Mathura no clear dating of the different periods is made in the available reports. The cast copper coins appear in sub-period II and III of period II characterised by the NBPW, which came to an end around 2nd Century B.C. Period I devoid of any numismatic find, has been dated back to circa 600 B.C. Thus, it is clear that at the site

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49 A. Ghosh and K.C. Panigarhi, "The pottery of Ahichchhatra", Ancient India, 1946, No.1, p.39

50 Ñ.24, 1954-55, pp.15-16
period II is to be dated after 6th century B.C., somewhere in 5th - 4th century B.C., and sub-period II of period II in 3rd century B.C. and not earlier. The copper coins are also found in period III along with Kusāna coins\textsuperscript{51} which seem to represent a date prior to A.D. 100, as period IV is said to be identical with the period dated to A.D. 100 - A.D. 350 at Ahichchhatra\textsuperscript{52}. Thus the dating of different periods seems reasonably established and the circulation of EUCCC seems to occur at the site in the level of 3rd century B.C. The maximum duration of its circulation at the site seems to be clearly indicated up to circa 200 B.C. only, while the copper coins found in period III along with Kusāna coins are not properly identified in the reports.

At Sonkh the EUCCCs are reported to appear along with silver PMC in levels 34 and 33 dated to circa 400 B.C.\textsuperscript{53}. The PMC is reported in the subsequent levels 32, 31, 30 and 29 while in the upper region of level 29 die-struck

\textsuperscript{51} Ibid. p. 16
\textsuperscript{52} Ibid.
\textsuperscript{53} H. Hertal, \textit{Sonkh Excavation - A preliminary Report} (Delhi, 1976), p. 79, fig. 10.
copper coins appear followed by inscribed coins in level 28.54 The EUCCCs do not seem to continue in subsequent levels after 34 and 33, i.e. after the Mauryan period. At this site alone, of the sites studied so far PMC seems to be playing an effective role, more prominent than EUCCC, in the currency system of the period. However, both the coinages appear in the same level and do not suggest any thing about the precedence of one over the another.

At Jajmau the occurrence of EUCCC in period I along-with NBPW can be assigned a date earlier than circa 200 B.C. on the basis of the 'Dampati Plaque' in association with NBPW, and inscribed ivory seal in Brahmi character of about the 3rd century B.C.55

At Purana Qila the emergence of EUCCC and PMC is reported from period II dated circa 600 B.C. to 200 B.C.56 But in the subsequent excavation at the site the level has been more precisely dated as representing the Mauryan period datable to circa 300 B.C.57 Thus, the appearance

54 Ibid, pp. 79 - 80
55 n. 21, 1975-76, pp 52-53 (The date of the plaque is based on the observations made by Dr VS Agrawal published in Ancient India, No.4 P.113).
56 n. 21, 1954-55, p.14
57 Ibid, 1969-70, p.4 Plate XII.1
of the coinage at the site seems to be around circa 300 B.C. some time crossing the limits on either side. However the exact period of its circulation at the site cannot be determined as it occurs only in this period. Thus, a maximum duration up to a date not later than 200 B.C. can be assigned for this coinage as at Sonkh.

At Rupar the EUCCC has been found in period III continuing also in period IV.\(^{58}\) While the period III has been dated circa 600 B.C. to 200 B.C. the beginning of period IV is in the 2nd century B.C.\(^ {59}\) At this site the coin was in circulation even after circa 200 B.C. However, a more precise date for its beginning, i.e., after circa 600 B.C. cannot be given on the basis of available details.

At the neighbouring site of Sugh the EUCCC appears in the period I B, datable from circa 500 B.C. to 100 B.C. along with PMC and Indo-Greek coins. The EUCCC continued in period II also datable to circa 100 B.C. to A.D. 500.\(^ {60}\) However, its emergence at the site has not been finally


\(^{59}\) Y.D Sharma, "Past Patterns in Living as Unfolded in Excavation at Rupar", \textit{Lalit Kala}, 1955-56, No. 12, pp. 121-

\(^{60}\) N. 21, 1965-66, pp. 35-36
dated.

At Noh the EUCCC emerged along with the NBPW in period IV. Period V is characterised by the emergence of Kusāna antiquities at the site.\(^{61}\) The emergence of typical Kusana antiquities in period V suggests a date much earlier than 1st century A.D. for period IV. The period has been dated to circa 600 B.C. to 300 B.C. level and period V to early 200 B.C. to late A.D. 300, in which cast copper coins were also found.\(^ {62}\) Thus at the site EUCCC seems to be circulating in period IV and V dated together from circa 600 B.C. to A.D. 300.\(^ {63}\)

At Ujjain, coins were found in period II dated between circa 500 B.C. and 200 B.C.\(^ {64}\) and also in period III and IV.\(^ {64}\) However, the levels and the exact nature and types of the coins found are not reported, but available information about the site reveals the circulation of EUCCC in period II surviving in period III assigned to circa 200 B.C. – A.D. 100.\(^ {65}\) Thus a more precise dating

\(^{61}\) Ibid. 1964 - 65, pp. 34-35; 1971-72, pp.41-42
\(^{62}\) Ibid, 1966 - 67, pp. 30-31
\(^{63}\) Ibid, 1956-57, p. 24; 1957-58, p.34
\(^{64}\) Ibid, 1957 - 57, p. 36
\(^{65}\) n. 58, p.6
for its appearance in Ujjaini is not possible. The date of the two periods are broadly from circa 500 B.C. to A.D. 100 which can be accepted as the date of its circulation at the site. It is not possible to make a comparative study with PMC as the finds mentioned do not specify the types of coins.

At the site of Kayatha only one EUCCC was found in the early level of period IV. The other three coins found in the excavation from period V include one PMC, while the remaining two could not be identified. Period IV is dated between circa 600 B.C. and 200 B.C. and period V to circa 200 B.C. to A.D. 600. Thus the EUCCC seems to occur at the site in the early levels of period IV while PMC appear after circa 200 B.C. levels in period V. However, in another excavation at the same site EUCCC was found along with typical Sunga terracottas in period IV, revealing its circulation at least up to 2nd century B.C. This coinage was also found in period V dated to circa 200 B.C. to A.D. 600 thus extending its circulation even

66 Z.A. Ansari and M.K. Dhavalikar, Excavation at Kayatha (Pune 1975) p.151
67 Ibid., Lll, 5, p. 8
68 n. 21, 1964 - 65, p. 19
after circa 100 B.C.\(^{69}\) The EUCC appeared in period IV and continued in period V, while PMC appeared in period V alone. So far as a comparative study with PMC is concerned it appeared at the site after the emergence of EUCC, with a long gap between the appearance of the two. As the site of Kayatha is situated in ujjain district a fairly similar period of circulation may be taken to be true for Ujjain also.

At Tripuri the PMCs appear in stratum II\(^{70}\) and continues up to stratum V, but EUCCs appear in stratum III succeeding the occurrence of Tripuri Janpada coin in the same layer 5.\(^{71}\) Stratum II has been dated to circa 400 B.C. to 300 B.C. while stratum III consisting of layers 5 and 6 to circa 300 B.C. to 100 B.C. This suggests the occurrence of EUCC at the site after circa 300 B.C. preceded by PMC and NBPW in stratum II.\(^{72}\) In stratum III the coins of Tripuri Republic and Satavahanas were also found. No doubt at this site PMC seems to be more prominently in circulation surviving up to stratum V dated to A.D. 200 to 400. In the subsequent excavation:

\(^{69}\) Ibid, 1967-68, p.25
\(^{70}\) M.G. Dikshi, Tripuri 1952, p.123
\(^{71}\) Ibid, pp. 121-130
\(^{72}\) Ibid, p.18
tions at the site, the circulation of EUCCC is also revealed from period II dated circa 300 B.C. to 100 B.C. and period III dated 100 B.C. to A.D. 200 along with PMC and 'Tripuri' coins in earlier period with the addition of Satavahana coins in the later period. Thus circulation of the EUCCC at the site seems to be from circa 300 B.C. to A.D. 200. However, at this site probably EUCCC acted, as a secondary coinage in the currency system to PMC in the earlier period and to the local 'Tripuri' and Satavahana coinage in the later period. This site, also presents a feature different from that of the sites of zone 2 where the NBPW and EUCCC appear without much time gap. At this site the EUCCCs appear in the late phase of NBPW. However, this does not constitute a significant difference in the cultural context of zone-2.

In zone-3, the appearance of the coinage along with NBPW coincides with comparatively stabilized urban cultural context. At Maheshwar and Navadatoli the PMC and EUCCC appear in period IV dated between circa 400 B.C. and 100 B.C. which continues in period V dated to

73 n. 21, 1966-67, pp. 17-19
circa 100 B.C. to A.D. 100 or 200, with the addition of tribal coins of mainly Ujjain and Taxila in the later period.\textsuperscript{75} Thus the date for its circulation at the site seems to be in period IV and V i.e. circa 400 B.C. to A.D. 100 or 200. The EUCCC at the site does not seem to occupy a very prominent place in the currency system, as PMC and tribal coins also seem to circulate in an equally effective manner. Though the occurrence of Tribal coins in period IV is not discussed in the report still a depthwise study of the coins found in trench II at Maheshwar indicates a mixed representation of coins at different levels. PMC silver first appear at a depth of 37' 6"\textsuperscript{76} in trench II followed by PMC copper at a depth of 33' Ujjain copper at 29'\textsuperscript{77} and 27' 8"\textsuperscript{79} EUCCCs appear at a depth of 25' 4"\textsuperscript{80} and 18' 1" to 19' 6"\textsuperscript{81}

This sort of depthwise study indicates that at the site the PMC appeared earlier than EUCCC, and that a particular period was not characterised by a single type of coin.

\textsuperscript{75} Ibid, Fig. B.1, pp 22-23
\textsuperscript{76} Ibid, S No.1 p 68, plate XII.1
\textsuperscript{77} Ibid, S No.12, p.70, Plate XII.12
\textsuperscript{78} Ibid S. No.30, p.74, Plate XIV.30
\textsuperscript{79} Ibid. S No.29, p.73, Plate XIV.29
\textsuperscript{80} Ibid, S No.14, p. 70, Plate XIII.14
\textsuperscript{81} Ibid, S No.15, p. 71, Plate XIII.15
At the site EUCCC seems to begin in the later half of the period IV and early period V as the depth and layer of its occurrence would suggest. This reflects the circulation of this coinage at the site after circa 200 B.C and probably extending up to circa A.D. 100.

At Kaundanyapur the PMC and the EUCCC appear in layer 7 assignable to Mauryan period dated from circa 300 to 100 B.C. At the site very few coins were found including two PMCs and two EUCCCs in stratified layers. One of the PMC, however, was found in layer 4 also, ascribable to late Satavahana period. Thus at the site the circulation of the EUCCC is indicated in period III alone, dated between circa 300 B.C. and 100 B.C. The PMC is also found in period V dated to circa A.D. 200 to 250, which may indicate only a survival of the earlier period. However the EUCCC and the PMC emerged at the site in the same level.

Similarly at Pauni the EUCCC and PMC appear in period II, i.e. in layer 4 of trench E 1 at Jagannath, Tekdi, assigned to late Maurya and Sunga period. This

82 MG Dikshit, *Excavations at Kaundanyapur* (Bombay 1968) pp 27-29, 134-39
83 Ibid, p.136, No.148, plate XL.A.3
would suggest the emergence of coinage at the site in circa 200 B.C. But at Chandakapur Tekdi both the coinages (PMC and EUCCC) are found in levels belonging to circa 100 B.C. to A.D. 200, comparable with period III at Jagannath Tekdi complex. 85

Thus at the site PMC and EUCCC seems to appear in circa 200 B.C. and continue up to A.D. 200. However, the upper limit of circulation can be further brought down to A.D. 100 as the coins found are limited in number and do not show distribution throughout the period.

At Nasik also very few coins were found in excavation, of which only five could be identified. There are two EUCCCs from layer 4 dated to 3rd and 2nd Century B.C. in the early historic B, period II, the layer dated largely on the basis of pottery and the coin itself. 86 At the site PMCs are not represented and the coins probably of Satavahanas come from late levels.

However, Nevasa, the southernmost limit of the occurrence of EUCCC reveals the presence of PMC in period IV, the layer dated to 2nd-1st Century B.C. 87 EUCCC also appear in period IV itself and continues in period V along

85 Ibid, pp. 96-98
87 H.D Sankalia, SB Deo, ZA Ansari & Sophie Ehrhardt, From History to Pre-History at Nevasa, 1954-56 (Poona 1960) p.163
with the PMC.\textsuperscript{88} At the site period IV dated to circa 150 B.C. to 50 B.C. and period V dated to circa 50 B.C. to A.D 200 also represent the coins of Satavahanas, Tribal and a few unidentified coins.\textsuperscript{89} Thus at the site the EUCCC seems to be in circulation from circa 150 B.C. to A.D. 100. The occurrence of PMC at the site is represented by only two coins, one belonging to period IV with silver coating\textsuperscript{90} and the other to period V, which represents a cast PMC.\textsuperscript{91} Thus at the sites in zone-3 the circulation of this coinage is reflected in levels assignable to circa 200 B.C. along with other tribal coinage. As its prominent circulation is in levels after 2nd Century B.C. to other coinage also plays an effective role in this period.

The Zone-4 comprises only two sites. These two sites are not identical in their cultural context, but as the coinage appears in the last levels of both sites, these two can be bracketed together. At the site Saradkel (south Bihar) the EUCCC appears only in period II datable

\begin{itemize}
\item \textsuperscript{88} Ibid, pp. 161-88
\item \textsuperscript{89} Ibid, pp. 64-70, 189-204
\item \textsuperscript{90} Ibid, pp. 162-63 (No. 2849)
\item \textsuperscript{91} Ibid, pp. 163-64 (No. 4012)
\end{itemize}
to A.D. 100 to 200 in an iron industrial complex dominated by Kusāna antiquities. The EUCCC is the only coin found at the site. But at Sisupalgarh (Orissa), the other site of zone four, the uninscribed coins appear in period II dated to circa A.D. 50 to 125 along with PMC. They also occur in the succeeding period III datable upto A.D. 200. Thus at the site it seems that the uninscribed coins appear in latter half of the first century A.D. and continue upto 2nd century A.D. level succeeded by Kusāna and imitation Kusāna coins. However, the uninscribed copper coins, nine in number, are of doubtful attribution and these may be of the die-struck variety.

Thus an investigation of the occurrence of this coinage in different zones reveals clear picture of its period of circulation. It seems to originate at different sites, succeeding NBPW (except Kausāmbi) which fixes the earliest date after circa 600 B.C. which is accepted date of the origin of NBPW. In zone-1 its earliest date

92 n. 21, 1964 - 65, p.6
94 Ibid, p.98
of occurrence seems to be between 450 B.C. and 300 B.C.
In zone 2 where a precise dating is possible, it does not go beyond circa 300 B.C. except for two sites, i.e., Hastināpur and Kayatha. At Hastināpur, the earliest occurrence of EUCCC and PMC is to be dated between circa 500 B.C. and 400 B.C. and at Kayatha between circa 400 to 300 B.C. In zone 3 this coinage seems to be in circulation by circa 200 B.C., though at Kaundanyapur and Maheshwar and Navadātoli, this coinage appeared around circa 300 B.C. In zone 4 this coinage seems to appear after circa A.D. 50. Thus the date of its earliest occurrence does not seem to go beyond circa 500 B.C. The association of NBPW in its fullness of development would also suggest a somewhat similar date for its origin. Thus the origin of this coinage can be fix between circa 500 B.C. and 400 B.C.

A time gap for its appearance in different zones seems to have existed revealing economic relationship between different zones of its distribution. It circulated within the zone itself for considerable time and then spread out to another zone. As in zone 1 an area A can be identified where it appeared earlier like Vaisālī,
Sonpur, and Paṭaliputra in circa 450 B.C to 350 B.C. From area A it seems to have spread out to Eastern U.P region (Rājghāt, Śrāvasti, Tilaurakot) between circa 350 B.C and 275 B.C which can be identified as area B of zone-I. At sites in Bengal it appeared between circa 300 B.C to 250 B.C identified as area C of zone I. Thus the time gap in the appearance of this coinage in different areas indicates that in the earliest phase of its occurrence it slowly gathered importance and momentum with the development in the commercial activity of the area. Such time gap within the established zone is not found in other zones. In zone 2 and 3 it appeared in circa 350 B.C to 250 B.C. However, at Hastinapur and Kayatha probably it appeared earlier. Thus it seems that while this coinage took a little time to circulate in zone 1, it appears that in other zones it spread out by circa 250 B.C. and by circa 200 B.C. it covers almost all sites under study except zone 4.

This seems to coincide with the establishment of Mauryan empire which provided the structure needed for a quickened pace in the development of trade and commerce throughout the sub-continent. No doubt the available evidence indicates the emergence of ĒUCCC prior to the advent
of Mauryas, probably during their reign of Nandas. But its spread in different localities began with the flourishing trade conditions existent under the Mauryas. The coinage in the area of distribution shown above survived even after the Sunga period.

The period of circulation seems to extend up to A.D. 100-200. However at a number of sites the date by which it ceases to circulate is not precisely revealed. For example at Vaisali the EUCCC is found in period V also (only three) dated after circa A.D. 600. Similarly at Pataliputra also EUCCCs occur in period II dated between circa 150 B.C. and A.D. 500. But at Pataliputra it is found in lower levels of period II and therefore a date prior to A.D. 250 seems more likely for its circulation. At other sites of zone-1 it seems to have been in effective circulation up to early centuries of the Christian era. No doubt in zone 2 as well, the period characterised by EUCCC is dated up to A.D. 600 (at Rupar and Kayatha), but its precise limits of circulation do not seem to go beyond circa A.D. 200. In zone 3 and 4 the upper limit of the period of circulation is restricted to A.D. 200.
Thus excluding the site of Vaiśālī its circulation does not seem to go beyond A.D. 250, while at a maximum number of sites its main period of circulation is restricted to A.D. 100. The EUCCC thus found between circa A.D. 100 and 300 may be considered as survival of the issues of an earlier period.