The Analysis

4.1 The Structures and Architectural Techniques at Balathal

Two very distinct methods of construction were noticed at Balathal. They were also seen restricted to specific layers, one type to layers 3 and 4 (Phase I) and one to layers 1 and 2 (Phase II). On the basis of this they have been denoted as 2 different phases.

Phase I

The houses of this phase were either square or round on plan and measured roughly five meters in diameter or five meters square. They were made of wattle and daub, probably with thatched roofs, with silos within and fireplaces outside. The floors of this phase are made of a cowdung plaster or of embedded pebbles, and are repeatedly repaired. The houses often have low circular mud platforms outlined in stone. These are probably storage basket bases. These houses also used a large amount of wood in their construction. This is deduced, in the absence of wooden remains, on the basis of the large number of iron nails and clamps.

Phase II

At the base of layer 1 and resting on layer 2 were found four structures. These are St. 1, St. 12, St. 17, and a possible structure in Tr. E and E1.
These structures are made of stone. Stone has been used to build walls and in the case of St. 12 even for the flooring. This architectural phase also has the only brick structure (St. 12A), with bricks measuring 41 x 17.5 x 8 cm. In the case of St. 17 there is clearly a bath/washroom with stone paving and a terracotta drain.

4.2 Interaction of Artefacts at Balathal

Interestingly even the artefacts seem to reflect two architectural phases.

Amongst the ceramics, the FGW, B&RW, BSW and NBPW are restricted to layers 3 and 4, whilst the RW and GW are common to all the layers, specific shapes are predominant in layers 3 and 4, namely the pear shaped pots (PSP), the carinated pot with inverted tapering rim and rounded base, and the spouted bowl.

All the artefact types show a prominent numerical increase in layer 3. But artefacts like terracotta headscratchers, cast copper coins, and faience beads are seen only from layer 3, as are 4-legged querns. Rotary querns are seen only from layers 1 and 2. Though glass beads are most numerous in layer 3, numbers of glass bangle fragments are highest in layers 1 and 2. Amongst the beads faience, paste, copper and citrine are found only from layer 3 and below, whilst aquamarine, chert, chalcedony, and most of those of shell/bone/ivory are from layers 1 and 2.
Thus, as is evident from the above, the two phases are not just architecturally but also artefactually different.

4.3 Chronology

Altogether seven C14 dates are available from the Early Historic levels at Balathal. These are in order of age:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Lab. No.</th>
<th>Tr.</th>
<th>Ly.</th>
<th>Depth in metres</th>
<th>Date in BP (Half-life 5730)</th>
<th>Date (A.D./B.C.)</th>
<th>Calibrated (Summary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>PRL-1848</td>
<td>C</td>
<td>2</td>
<td>0.50</td>
<td>1820±70</td>
<td>130 A.D.</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>BS-1567</td>
<td>OA2</td>
<td>3</td>
<td>1.38</td>
<td>1900±90</td>
<td>50 A.D.</td>
<td>19 (100) 224 A.D.</td>
</tr>
<tr>
<td>03</td>
<td>PRL-1841</td>
<td>HX2</td>
<td>3</td>
<td>0.84</td>
<td>2110±60</td>
<td>160 B.C.</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>PRL-2403</td>
<td>A3</td>
<td>3</td>
<td>1.05</td>
<td>2230±90</td>
<td>280 B.C.</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>BS-1566</td>
<td>A</td>
<td>3</td>
<td>1.44</td>
<td>2280±80</td>
<td>330 B.C.</td>
<td>405 (379) 2088 B.C.</td>
</tr>
<tr>
<td>06</td>
<td>PRL-1849</td>
<td>C</td>
<td>3</td>
<td>0.90</td>
<td>2290±70</td>
<td>340 B.C.</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>PRL-1983</td>
<td>A</td>
<td>4</td>
<td>1.77</td>
<td>2350±80</td>
<td>400 B.C.</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>PRL-1850</td>
<td>C1</td>
<td>2</td>
<td>0.47</td>
<td>3530±70</td>
<td>1580 B.C.</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>BS-1800</td>
<td>C4</td>
<td>1</td>
<td>0.31</td>
<td>3120±120</td>
<td>1170 B.C.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>BS-1781</td>
<td>C4</td>
<td>3</td>
<td>0.75</td>
<td>7180±180</td>
<td>5230 B.C.</td>
<td></td>
</tr>
</tbody>
</table>

It is obvious that the two dates from Tr. C4 and the date from Tr. C1 are in no way ascribable to the Early Historic and are in fact Chalcolithic dates and must mean an intrusion of earlier charcoal. These dates have thus not been taken into consideration whilst ascribing chronological limits to the Early Historic at Balathal.
It is thus clear from the above table that layer 3 is datable to between 160 B.C. and 400 B.C. uncalibrated, and therefore roughly between 180 and 440 B.C. calibrated (330 B.C. uncalibrated = 379 B.C. calibrated). Layer 2 is thus dated to 130 A.D. to 50 A.D. uncalibrated, probably pushing it back to about 100 B.C. to 100 A.D after calibration.

The C14 dates from Balathal too seem to support the above-mentioned bifurcation of the Early Historic deposit into two phases. Phase II is dated from the 1st century A.D. to the 2nd century B.C., and Phase I to the 3rd and 4th centuries B.C. and possibly to a part of the late 5th century B.C.

4.4 Comparative analysis of the artefactual assemblage from Balathal with those from other Early Historic sites

The comparative analysis of the artefacts from Balathal has been done on a site-wise basis. The artefacts from Balathal have been compared with those from collections from other Early Historic sites in an attempt to locate similarities or parallels. This not only gives an idea of the types of objects of daily use that were prevalent in that period but also shows up chronological markers, which help in establishing a chronology. Establishing artefacts as possible markers of chronology is one of the primary aims of this thesis. The absolute lack of hitherto defined comparative chronological markers as well as the indifferent occurrences of Carbon samples for C14 dating have left a void in the identification of specific excavated strata vis-à-vis their temporal position at many excavated sites. Therefore, the identification of specific artefact types
as cross-cultural temporal markers becomes all the more important. For example, today a Harappan site can be positively identified purely on the basis of its ceramics and its artefactual type fossils like seals, long barrel carnelian beads, typical figurines, etc., and its specific size of construction materials (bricks).

Here an attempt has been made to build a similar set of artefactual markers to serve the same purpose as far as the Early Historic period is concerned.

Comparison of the artefacts from Balathal with those from other Early Historic sites was done in an attempt to see if this was possible.

Comparative analysis serves as a base on which one can weave a tapestry of contact, dissemination and lifestyle, thus displaying a detailed picture of the geographical distribution or spread of the artefacts and artefact types. This goes further to give us an idea of the similarities in the artefactual assemblages from these sites and those from Balathal and the interactions Balathal had with these other contemporary sites.

Therefore, the comparative analysis has shed light not only on the repertoires of the craftsmen of that time but also on the peculiarities, trends and tastes, technology, resources, interactions and the general lifestyle of the people of Balathal in particular and of the other contemporary sites.

The sites have been grouped into a number of zones and have been listed in alphabetical order within the zones. The zones are 1. Mewar, 2.
Gujarat, 3. Central India, 4. The Ganga valley and North India, 5. Punjab and the NWFP (of Pakistan), and, 6. The Deccan

1. Ahar

The site of Ahar lies in the Udaipur District of Rajasthan. It was first excavated by the Department of Archaeology and Museums, Government of Rajasthan (IAR 54-55:14-17; 55-56:11), it was subsequently excavated by the Deccan College, Pune (Sankalia et al. 1969).

The Early Historic phase or Period IIb at Ahar was contemporaneous to that at Balathal (Sankalia et al. 1969: 6). A large variety of artefacts were found to be common with Balathal. These include stone objects, terracotta objects and beads. Among stone objects was a 4-legged quern (Sankalia et al. 1969: 212; Pl. XXIII). Terracotta objects included round bottomed votive tanks with tiny lamps on the rim (Sankalia et al. 1969: 181; Fig. 107.3), skin rubbers (Sankalia et al. 1969: 176-179; Pl. XI. 1,2,3,5; Fig. 105. 5,6,7,9,10,11), and a headscratcher (Sankalia et al. 1969: 179; Pl. XI.6; Fig. 105.12). Beads included etched globular carnelian (Sankalia et al. 1969: 165; Fig. 98.6) and a hexagonal crystal bicone (Sankalia et al. 1969: 165; Fig. 98.10).

2. Bagor

V.N. Misra (1973) of the Deccan College excavated the site of Bagor. It lies on the banks of the Kothari in the Bhilwara district of Rajasthan. It is one of the most important excavated Mesolithic sites in India. Phase III at Bagor has been dated 600 B.C to 200 A.D. by the excavator. It has yielded the typical pear shaped pots of the type seen at Balathal (Misra 73: 103-4, Fig. 25.1).
3. Bairat

Bairat (Sahni [n.d.]) in the Jaipur district of Rajasthan is known for the Asokan edict (the Calcutta-Bairat Edict) found there. It is situated in northern Rajasthan. It has yielded a fragment of a 4-legged quern (Sahni [n.d.]: Pl. IX c) similar to the one found at Balathal. It has also yielded a number of silver punch marked coins wrapped in cloth from a small pot (Sahni [n.d.]: 21-3; Pl. IV c). Though the fragment from Balathal is very small it appears to be of similar construction.

4. Nagari

Nagari is situated on the right bank of the Berach in the Chittaurgarh district of Rajasthan. This site has been excavated twice. The first time was by D.R. Bhandarkar (1920) and subsequently by Soundara Rajan (IAR 1961-62: 19-20). Nagari yielded pear shaped pots (Bhandarkar 1920: 145; Pl. XXIV.72) similar to those found at Balathal.

5. Iswal

The site of Iswal (District Udaipur, Rajasthan) lies about 40 km north of Udaipur. It is an enormous iron-smelting site made up of two large and extensive mounds of smelting debris and slag. The site is located one kilometer away from an ancient open iron mine.

Surface explorations at the site yielded a number of broken tuyeres and a smattering of pottery similar to that from Balathal. Mr. Abhijit Dandekar has identified one of the sherds as belonging to a carinated pot with inverted tapering rim and rounded base in FGW (pers. comm.).

This site was in all probability the primary iron-smelting site supplying the entire region and Balathal during the Early Historic period.
6. Rairh

Rairh was excavated by the Department of Archaeology and Historical Research, Jaipur. It lies in the Jaipur district of Rajasthan. The excavations were started by Daya Ram Sahni and completed by K.N. Puri (1940). The occupation was assigned to the 3rd century B.C. and the Mauryan period on the basis of a Chunar sandstone bowl and a rectangular copper coin bearing an inscription in Brahmi letters of the 3rd century B.C. (Puri 1940: 2-4). Similarities with Balathal include ringwells of an identical type (Puri 1940:14-17; Pl. III a-e), pear shaped pots (Puri 1940: 20-3; Pl. VIII.1,5), ink pot lids (Puri 1940: 20-3; Pl. VIII.24-7), iron spades/axes (Puri 1940: 35-6; Pl. X.1,2; Pl. XX.1), an iron dagger (Puri 1940: 36; Pl. XX.7), iron sickle (Puri 1940: 36; Pl. XX.10), chain link (Puri 1940: 36; Pl. XX.12), an adze (Puri 1940: 36; Pl. XX.16), arrowheads (Puri 1940: 36; Pl. XX.8,9), globular carnelian bead etched with white dots (Puri 1940: 41; Pl. XXI.20), globular beads with interlocking pentagons etched in white (Puri 1940: 41; Pl. XXI.18), carnelian bicones etched with interlocking pentagons in white (Puri 1940: 41; Pl. XXI.18,19), terracotta earstuds (Puri 1940: 41; Pl. XXIII.38), arecanut beads (Puri 1940: 41; Pl. XXIII.37), stone pestles and four legged querns (Puri 1940: 37; Pl. XVIII.5), and a pipe bowl/dropper (which the excavator calls a feeding cup) (Puri 1940: 22; Pl. XI.24).

The site has also yielded a large number of terracotta animal and human figurines. Of the human figurines a couple of moulded figurines (Puri 1940: 27-8; Pl. XII.b,e), and two handmade figurines (Puri 1940: 27; Pl. XII.f,g) are similar to those seen at Balathal. Of the animal figurines the bull figurines (Puri 1940: 32; Pl. XVI.4,6,10) and the broken elephant head (Puri 1940: 32-3; Pl. XVI.2) are identical to those from Balathal.
The site also yielded a piece of cotton cloth wrapped around a hoard of 535 punch marked silver coins (Puri 1940: 39).

7. Sambhar
The site of Sambhar lies in the Jaipur district of Rajasthan. It was excavated by the Department of Archaeology and Historical Research, Jaipur (Sahni 1939). Important iron artefacts similar to those found at Balathal are a cobbler's knife/adze (Sahni 1939: Pl. XIVc) and a socketted arrowhead (Sahni 1939: 39: Pl. XIVf). Sambhar also yielded a biconical carnelian bead with white etched bands of interlinked pentagons (Sahni 1939: Pl. XVm).

8. Dhatwa
The M.S. University, Baroda, excavated the site of Dhatwa on the south bank of the Tapi in the Surat district of Gujarat (Mehta 1975). It was a small agrarian settlement during the Early Historic period. This period is dated here from the 5th century B.C. to the 4th century A.D. Dhatwa has yielded terracotta arecanut beads (Mehta 1975: 22; Fig. 8.2-5) and earplugs (Mehta 1975: 21; Fig. 8.1) similar to those found at Balathal and an iron ploughshare blade/hoe (Mehta 1975: 18; Fig. 7.1) identical to those found at Balathal.

9. Dwarka
The site of Dwarka, in the Jamnagar district of Gujarat, was excavated by the Deccan College (Ansari and Mate 1966). The excavations were very limited and therefore the artefacts uncovered were very few in number. Appliqued glass bangles (Ansari and Mate 1966: 45; Fig. 10; Pl.17) identical to those found at Balathal were discovered at Dwarka (Ansari and Mate
1966: 73-5, 83-4; Fig. 20.79, Fig. 26.127). Dwarka has also yielded bell shaped lids in Red Ware similar to those seen at Balathal phase II. Surprisingly the level yielding these two objects has been assigned on an ad hoc basis to the Early Medieval period.

10. Nagara

Excavations at Nagara in the Kaira district of Gujarat were carried out by the M.S. University, Baroda (Mehta 1968). The only ceramic type similar to that found at Balathal is the bell shaped lid (Mehta 1968: 41; Fig. 22.50-1, 54-5). Common artefacts include plain and appliqued glass bangle fragments (Mehta 1968: 132-3), faceted biconical crystal beads (Mehta 1968: 140) and 4-legged and rotary querns (Mehta 1968: 123-5; Fig. 59.7,11).

11. Timbarva

The site of Timbarva in the Baroda district of Gujarat was excavated by the M.S. University (Mehta 1955). The NBPW levels at the site have yielded pear shaped pots (Mehta 1955: 13; Fig. 8.48,49), carinated pots with inverted tapering rim and rounded base (Mehta 1955: 15; Fig. 9.59) and a headscratcher similar to those from Balathal. The later levels dated from 0 A.D. onwards to 300 A.D. have also yielded pear shaped pots (Mehta 1955: 15; Fig. 9.76,77) (Mehta 1955: 15; Fig. 9.64), skinrubber (Mehta 1955: 23; Fig. 13.30; Fig. 14) and terracotta arecanut beads (Mehta 1955: 18-19; Fig. 11.27,34,56; Fig. 12) similar to those seen at Balathal.
12. Avra

The site of Avra (Trivedi 1963) lies in the Mandsaur district of Madhya Pradesh. It is located south of Balathal in an almost on a straight line between Balathal and Ujjain. Though the excavations were limited Avra has yielded pear shaped pots and part of a 4-legged quern (Trivedi 1963: 23, 28).

One very significant fact is that the Early Historic deposit at Avra also shows signs of large scale burning (Trivedi 1963: 18,19) similar to that seen at Balathal.

13. Kakarehta

The site of Kakarehta (District Jabalpur, Madhya Pradesh) was excavated by the Department of Ancient Indian History, Culture and Archaeology, University of Jabalpur (Sharma and Mishra 1992). It lies very close to Rupnath, the site of Asoka’s famous minor rock edict.

Kakarehta has yielded pear shaped pots and carinated pots with inverted tapering rim and rounded base similar to those found at Balathal (Sharma and Mishra 1992: 78,80; Fig. 18.2, 19.1,2). This site also yielded terracotta skinrubbers (Sharma and Mishra 1992: 123; Pl. XXXb), a headscratchers of the regular and the double compartment types (Sharma and Mishra 1992: 122; Pl.XXVII.) and 4-legged and rotary quern fragments (Sharma and Mishra 1992: 110) similar to those found at Balathal. Hexagonal bitruncated crystal beads and etched globular beads with bands of interlinked pentagons are also seen at both sites. Kakarehta also yielded appliqued and plain glass bangle fragments.
identical to those found at Balathal (Sharma and Mishra 1992: 178-81, Pl. LIII).

14. Kayatha
The site of Kayatha in the Ujjain district of Madhya Pradesh was excavated by the Deccan College (Ansari and Dhavalikar 1975). It yielded terracotta headscratchers (Ansari and Dhavalikar 1975: 137; Fig. 76.2; Pl. XVIII.2), skinrubbers (Ansari and Dhavalikar 1975: 137; Fig. 76.1; Pl. XVIII.1), facetted crystal bicones (Ansari and Dhavalikar 1975: 115; Fig. 70.3; Pl. IX.3) and plain and appliqued glass bangle fragments (Ansari and Dhavalikar 1975: 139, 142; Fig. 79) which are all similar to those found at Balathal.

15. Maheshwar and Navdatoli
The sites of Maheshwar and Navdatoli lie on opposite banks, of an important crossing, of the river Narmada, in the West Nimar district of Madhya Pradesh. They were excavated by the Deccan College (Sankalia et al. 1958). The site of Maheshwar is identified with Kalidasa’s Mahismati. The common artefacts include carinated pots with inverted tapering rim and rounded base (Sankalia et al. 1958: 148; Fig. 75.105) and ink pot lid (Sankalia et al. 1958: 146; Fig. 71.98A), plain and appliqued glass bangle fragments (Sankalia et al. 1958: 217-8; Fig. 106), terracotta skinrubbers (Sankalia et al. 1958: Fig. 103.2, 19,20) and fragments of 4-legged querns (Sankalia et al. 1958: 237; Fig. 115.7). Coins of the elephant and hill type were found from the excavations and the surface of many localities at Maheshwar and Navdatoli (Sankalia et al. 1958: 71; Pl. XIII.15-20).
16. Nagda

The site of Nagda (District Ujjain, Madhya Pradesh) was excavated by the Archaeological Survey of India (Banerjee 1986). The site is located on the banks of the Chambal. It is roughly 35km north of Ujjain. At Nagda two distinct Early Historic phases were identified. These are period II- 750 to 500 B.C. and period III- 500 to 200 B.C. These periods are differentiated on the absence or presence of NBPW, respectively. Nagda is quite close to Balathal as the crow flies and a lot of the artefacts found at Nagda mirror those found at Balathal. These include facetted biconical crystal beads (Banerjee 1986: 213; Fig. 58.16,23), light green glass bangle fragments (Banerjee 1986: 218; Fig. 59.8), terracotta earstuds and arecanut beads (Banerjee 1986: 215; Pl. XXIV), earplugs (Banerjee 1986: Pl. XXV.7,12,14-16), two headscratchers (one with a figure of a spotted deer) (Banerjee 1986: 231-2; Pl. XXVIB), bull figurines (Banerjee 1986: 229-31; Fig. 61; Pl. XXVII), rectangular skinrubbers (all 18 from period III) (Banerjee 1986: 232; Pl. XXVIII A), conical and cylindrical terracotta pendants (Banerjee 1986: 239-40; Pl. XXXB.7-9,12) and a very large perforated terracotta disc with an off-centre perforation (from period III) (Banerjee 1986: 239; Pl. XXXB.3). Iron artefacts include a ploughshare blade/hoe (from period III) (Banerjee 1986: 25; Fig. 63.9) and sickles (Banerjee 1986: 251; Fig. 63.1-7). 4-legged querns are also found common to Balathal and Nagda (Banerjee 1986: 258, 260; Pl. XXXII A). Nagda has also yielded structural remains that used burnt bricks.

17. Tripuri

The ancient site of Tripuri is located about 150km east of Sanchi near the present day town of Tewar in the Jabalpur district of Madhya
Pradesh. It is identified as the capital of the Chedis in the Mahajanapada period and as an independent republic of the Tripuras in the Mahabharata. It was later the capital of the Tripuri Kalachauris in the 9th century A.D. It was excavated by the Department of Archaeology, University of Saugar (Dikshit 1955).

Excavations at Tripuri have brought to light ringwells almost identical to the one found at Balathal (Dikshit 1955: 23; Fig. 4; Pl. XVII, XVIII). Both sites also have pear shaped pots (Dikshit 1955: 59-61, 63, 73-4; Fig. 20.93A,B,C; Fig. 21.100,100A; Fig. 29.162) in common. Beads common to both sites include hexagonal bitruncated barrel beads of amethyst (Dikshit 1955: 86-7; Fig. 35.18; Pl. XXXI.18) and crystal (Dikshit 1955: 86,88; Fig. 35.28; Pl. XXXIIIC), facetted biconical crystal beads (Dikshit 1955: 86,88; Fig. 35.20; Pl. XXXIIIC), terracotta arecanut (Dikshit 1955: 94,95; Fig. 36.48) and crenellated (Dikshit 1955: Fig. 36.49) beads. A small fragment of a headscratcher (Dikshit 1955: 99,100; Fig. 37; Pl. XXX) and a terracotta skinrubber were also found to match those from Balathal (Dikshit 1955: 99; Pl. XXXVI), 4-legged querns (Dikshit 1955: 105-9; Fig. 39) and a coin of the elephant and hill type (Dikshit 1955: 125-6; Pl. XLII.2).

18. Ujjain

Ujjain (District Ujjain, Madhya Pradesh) was the capital of the Avanti Janapada and subsequently of the province of Avanti in the Mauryan period. The Mauryan emperor Asoka is supposed to have been the governor of Avanti, at Ujjain, prior to ascending the throne (Thapar 1961: 21,22). The site of Ujjain was first excavated by the Department of Archaeology, Gwalior State (AARADG 1940).
Excavations yielded a large amount of pottery (AARADG 1940: Pl. XVIII, XIX, XX). Ceramics similar to those found at Balathal included pear shaped pots (AARADG 1940: Pl. XVIII.b) bell shaped lids (AARADG 1940: Pl. XIX.c) ink pot lids (AARADG 1940: Pl. XX.b). The excavations also yielded fragments of 4-legged querns and stone pestles (AARADG 1940: Pl. XXI.c), terracotta arecanut beads (AARADG 1940: Pl. XXVI) and skinrubbers (AARADG 1940: Pl. XX.b) and a large number of coins of the elephant and hill type (AARADG 1940: Pl. XXVIII.a) all similar to those found at Balathal. Ringwells similar to those found at Balathal were also seen at Ujjain (AARADG 1940: Pl. XV.d, XVI).

Ujjain was subsequently excavated by the Archaeological Survey of India (IAR 56-57: 20-28). Excavations revealed four periods of which period II was identified as the Mauryan period. Antiquities from this period similar to those found at Balathal include socketted iron arrowheads, terracotta skinrubbers, coins of the elephant and hill type, faceted biconical crystal beads, carinated pots with inverted tapering rim and rounded base and headscratchers (IAR 56-57: Fig. 11). The headscratcher from Ujjain seems to be identical in shape design and decoration to one of the headscratchers (No. 3463) from Balathal.

19. Ahichchhatra

This site of Ahichchhatra lies in the Bareilly district of Uttar Pradesh and was excavated by the Archaeological Survey of India (Ghosh and Panigrahi 1946). Pottery similar to Balathal includes pear shaped pots (Ghosh and Panigrahi 1946: 42-3; Fig. 1.10a,b), the carinated pot with inverted tapering rim and rounded base (Ghosh and Panigrahi 1946: Fig.1.12), the spouted bowl (Ghosh and Panigrahi 1946: Fig.1.14).
Terracotta mother goddess figurines (Agrawala 1948: 106-8; Pl. XXXI.2,3,4,6,7,8) are also found to be similar to those seen at Balathal. Similar beads include hexagonally facetted bitruncated citrine beads, an irregular citrine pendant (Dikshit 1952:46-47; Fig. 3.70,71) and a globular carnelian bead etched in white with two bands of intersecting pentagons (Sharma 1953: 138-9). The elephant and hill coin seen at Balathal is also present here (Sharma 1953: 138-9).

20. Atranjikhera
The site of Atranjikhera lies on the right bank of the Kali Nadi in the Etah district of Uttar Pradesh. It was excavated by R.C. Gaur (1983). Similar artefacts include globular dotted etched carnelian beads, globular and bicone carnelian beads with etched interlinked bands of pentagons (Gaur 1983: 406, 408; Fig. 117.2, 25, 41), hexagonal bitruncated amethyst (Gaur 1983: 408; Fig. 117.12), hexagonal bitruncated crystal (Gaur 1983: 408,409; Fig. 117.14,39), and trapezoid flat biconical carnelian bead (Gaur 1983: 408; Fig. 117.21).

Similar glass bangle fragments (Gaur 1983: 421) were also found here. Iron arrowheads and spearheads from this site are also similar to those found at Balathal (Gaur 1983: 422-4; Fig. 120, 121). Atranjikhera has also yielded a ploughshare blade or hoe similar to those seen at Balathal (Gaur 1983: 429; Fig. 123.4, 5). Other similar iron objects include clamps, nails, sickles and a knife (Gaur 1983: 432-436).

21. Bhita
The site of Bhita lies on the right bank of the Yamuna in the Allahbad district of Uttar Pradesh. It was excavated by the Archaeological Survey...
of India (Marshall 1915). It has yielded pear shaped pots (Marshall 1915: 82; Pl. XXIX.43; Pl. XXX.94), a terracotta skinrubber (Marshall 1915: 72; Pl. XXII.2) and a fragment of a 4-legged quern (Marshall 1915: 87; Pl. XXXII.24) similar to those found at Balathal.

22. Hastinapura

Hastinapura (Lal 1956) was excavated by the Archaeological Survey of India. It lies on the right bank of an old bed of the Ganga in the Meerut district of Uttar Pradesh. It is one of the most important Early Historic sites in India. It has yielded a number of ringwells similar to those seen at Balathal (Ul 1956: 25; Pl. VIII, IX, X, XIB). It has also yielded pear shaped pots (Lal 1956: 59, 60; Fig.18.XXIa,b,g), the carinated pot with inverted tapering rim and rounded base (Lal 1956: 62; Fig. 19.LI), stamped FGW (Lal 1956: 56-57; Fig. 16.XVIII), and round bottomed votive tanks with tiny lamps on the rim (Lal 1956: 69-70; Fig. 23.2) identical to those from Balathal. Hastinapura has also yielded a handmade terracotta figurine with pinched face (Lal 1956: 84; Pl. XL.13), skinrubbers (Lal 1956: 88; Pl. XLVII.4,5) and a terracotta dabber (Lal 1956: Pl. XLVII.1) similar to those seen at Balathal. This site has also yielded a fragment of the base of a rotary quern (Lal 1956: 90; Pl. LIA) like the one found at Balathal Period II, Phase II. Bangles of glass, plain and appliqued, like those from Balathal were found at Hastinapura (Lal 1956: 90, 91; Pl. LII). Hastinapura also yielded beads similar to those found at Balathal. These include multi-facetted green jasper (Lal 1956: 92; Fig. 29.15), etched carnelian bicones with interlinked pentagons (Lal 1956: Fig. 29.22), hexagonal bitruncated citrine (Lal 1956: Fig. 29.18). At Hastinapura was also found a socketted arrowhead (Lal 1956: 99; Fig. 31.19) similar to the one found at Balathal.
23. Kausambi

G.R. Sharma of the Department of Ancient Indian History, Culture and Archaeology, University of Allahabad excavated Kausambi (Sharma 1960). It lies on the banks of the Ganga in the Allahabad district of Uttar Pradesh. It is a very important site vis-à-vis the Early Historic period and northern India. It was one of the original urban settlements of the second urbanization of India. Ceramics common to Balathal and Kausambi are pear shaped pots (Sharma 1960: 150,152; Fig. 21.44,45,44B-44F,46), carinated pots with inverted tapering rim and rounded base (in NBPW, GW & BSW) (Sharma 1960: 136, 138-9, 143; Fig. 14.LI, 15.X, 17.XLV), ink pot lids (Sharma 1960: 155-6; Fig. 22.90,) and spouted bowls (Sharma 1960: 162-3; Fig. 25.35). Small finds common to both sites include terracotta skinrubbers (Sharma 1960: Pl. XLVIIIA.2), glass bangle fragments, both appliqued and plain (Sharma 1960: 96; Pl. LVII.18), globular carnelian beads etched with white dots (Sharma 1960: 106; Pl. LXI.28) and bands of interlinked pentagons (Sharma 1960: 106; Pl. LXI.15) and hexagonal bitruncated barrel beads of amethyst and a facetted irregular crystal pendant (Sharma 1960: 109, 110; Pl. LXII.32,35,45). Kausambi also yielded four coins of the elephant and hill type, two of these are twin coins joined with a tongue (Sharma 1960: 83; Pl. LIII.12,13,14).

24. Kumrahar

The site of Kumrahar (Altekar and Mishra 1959) is one of the localities of the ancient city of Pataliputra (modern Patna), the capital city of the Mauryan empire. It lies on the south bank of the Ganga and is a part of the modern city of Patna the capital of Bihar. It was excavated by the K.P. Jayaswal Institute, Patna. It has yielded pear shaped pots (Altekar
and Mishra 1959: 65-6, 79; Fig. 24. 33,37 & Fig. 33.6), carinated pots with inverted tapering rim and rounded base (Altekar and Mishra 1959: 73; Fig. 29.1,2,6) and the inkpot lid (Altekar and Mishra 1959: 73; Fig. 29.14) are the same as those seen at Balathal. Other finds similar to those from Balathal are coins of the elephant and hill type (Altekar and Mishra 1959: 93,94; Pl. LXXXA.14), a hexagonal bitruncated amethyst barrel bead (Altekar and Mishra 1959: 133; Pl. LXXX.17), terracotta skinrubbers (Altekar and Mishra 1959: 126; Pl. LXVIII.1,2) and globular carnelian bead with etched white dots (Altekar and Mishra 1959: 134; Pl. LXXXI.13).

25. Pataliputra

Pataliputra was the capital of the Mauryan Empire. The Buddhist text the *Mahaparinirvana sutra* says that the Buddha visited the site when it was only a village called Patali. He prophesied that Pataliputra would become a great city famous for its busy marts and emporia. Ajatasatru, the king of Magadha and a contemporary of the Buddha built a fortified city here. His son Udayi moved the Maghadan capital here after his death. Magadha then became part of the Sisunaga Empire. The Sisunagas in turn were overthrown by Mahapadma Nanda in 372 B.C. and the city then became the capital of the Nandas. After their overthrow by Chandragupta Maurya, sometime around 321 B.C., Pataliputra became the capital of the Mauryan Empire (Sinha and Narain 1970: 1).

The site is situated on the south bank of the Ganga within the precincts of the city of Patna. Pataliputra has been excavated repeatedly, by L.A. Waddell in 1892, P.C. Mookherjee in 1897-98, by D.B. Spooner of the Archaeological Survey of India in 1912-13, by the Archaeological Survey
of India (again) in 1926-27, and, by the K.P. Jayaswal Institute (Kumrahar), Patna in 1951-55 (Sinha and Narain 1970).

Pataliputra was subsequently excavated by the Directorate of Archaeology and Museums, Patna (Sinha and Narain 1970). Two Early Historic phases were identified, period I (600 to 150 B.C.) and period II (150 B.C. to 500 A.D.). These excavations yielded a number of artefacts similar to those found at Balathal. These are pear shaped pots (from period I and II) (Sinha and Narain 1970: Fig. 14.79: Fig. 17.116-7), spouted bowls (from Period I) (Sinha and Narain 1970: Fig. 14.77), FGW with stamped concentric circles (from Period I) (Sinha and Narain 1970: Pl. IX.5), terracotta earstuds (Sinha and Narain 1970: Pl. XXVA.4,7-8), facetted biconical crystal beads (from Period I) (Sinha and Narain 1970: 54: Pl. XXVB.10) and a coin of the elephant and hill type (from a lower level of period II) (Sinha and Narain 1970: Pl. XXIV.7).

26. Prahladpur

Prahladpur, in the Varanasi district of Uttar Pradesh, was excavated by the Banaras Hindu University, Varanasi (Narain and Roy 1968). The site has yielded ringwells similar to those at Balathal (Narain and Roy 1968: 11,12; Pl. VIII.A,B).

27. Rajghat

The site of Rajghat (Narain and Roy 1976), which is part of present day Varanasi, was excavated by the Banaras Hindu University, Varanasi. It lies on the banks of the Ganga in the Banaras district of Uttar Pradesh. Varanasi is known in ancient Indian literature as Kashi and has been renowned as a seat of learned and has been an important pilgrimage
centre since time immemorial. The pear shaped pots (Narain and Roy 1976: 41-2; Fig. 11.19) and carinated pots with inverted tapering rim and rounded base (Narain and Roy 1976: 39,40; Fig. 10.10) are similar to those found at Balathal. Artefacts similar to those found at Balathal include hexagonal bitruncated barrel beads of crystal (Narain and Roy 1976: 33; Pl. IV.6,9) and amethyst (Narain and Roy 1976: 25; Pl. III.1) and biconical carnelian beads with etched white dots and bands of interlinked pentagons (Narain and Roy 1976: 28; Pl. III.5,6,7).

28. Sonkh

The site of Sonkh (Hartel 1993) was subjected to intensive and extensive excavation. It is very close to modern day Mathura, which lies north and east of Balathal, on the banks of the Yamuna in the Mathura district of Uttar Pradesh. Mathura is renowned as the birthplace of Lord Krishna.

Amongst the terracotta figurines from Sonkh, No. 230, 231, 234, 236 and 246 (Hartel 1993: 155-6, 158-9) are reminiscent of the hand-made terracotta human figurines with pinched faces from Balathal. The terracotta elephant figurine No. 4-7(Hartel 1993: 164-5), and 29(Hartel 1993: 168, 171) and the bull figurine No. 9 (Hartel 1993: 164, 166), 43 and 47 (Hartel 1993: 169, 173-4) are also similar to those found at Balathal. The round bottomed votive tanks with tiny lamps on the rim from Balathal are identical to the ones seen here. At Sonkh these (Nos. 1-3) are called votive tanks (Hartel 1993: 195, 197.1-3). These occur in the early Sunga levels. Terracotta toy cart-frames (Hartel 1993: 203,204.9), arecanut beads and earstuds (called spindles by the excavator) (Hartel 1993: 215-21), skinrubbers (Hartel 1993: 222-25), dabbers (Hartel 1993: 226, 227.2,6), earplugs (reels) (Hartel 1993: 230, 231.1-3, 5,6), incised
terracotta balls (Hartel 1993: 236, 237.18), perforated conical and cylindrical objects (pendants) (Hartel 1993: 239, 240, 241.2-8), oversized perforated terracotta disc bead/pendant (Hartel 1993: 243.2) from Sonkh are identical to the same from Balathal. 4-legged querns (Hartel 1993: 267, 270.1-5), rotary querns (Hartel 1993: 267-8, 272.13-16), a pestle of red sandstone (Hartel 1993: 268, 274.27) from Sonkh are also identical to those found at Balathal. Socketted iron arrowheads from the Mauryan and Sunga levels (Hartel 1993: 283, 288.6, 289.12), a broken cobbler’s knife/adze (Hartel 1993: 283, 288.7) from the Mauryan levels, clamps and nails (Hartel 1993: 283-4, 289.25, 291.51) from Sonkh are also all identical to those from Balathal period II, phase I.

Hexagonal bitruncated crystal and amethyst barrel beads, faceted biconical crystal beads (bi-pyramid hexagonal/truncated bi-pyramid), agate leech beads, faience spheroids, black glass spheroids with white bands, globular carnelian bead etched with white bands of interlinked pentagons, and copper spheroids (Hartel 1993: 298-302) are all similar to the beads found at Balathal.

The pear shaped pot called the pyriform jar at Sonkh, period II (Mauryan) (Hartel 1993: 358.84, 363-5, 383.II.23,24, 385.II.58, 386.II.83,84,91), dish with stamped concentric circles in F&G (Hartel 1993: 363, 383.II.31), ink pot lid (Hartel 1993: 365, 386.II.88) and bell shaped lid (Hartel 1993: 375, 407.VI.84) are the ceramic types common to both sites.
29. Sonpur

The site of Sonpur (District Gaya, Bihar) was excavated by the Directorate of Archaeology and Museums, Government of India, Patna (Sinha and Verma 1977). The excavators identified three periods. Of these period II is NBPW and period III is post-NBPW. The site has yielded pear shaped pots from period II (Sinha and Verma 1977: 69,70; Fig. 31.16) and from period III (Sinha and Verma 1977: 71, 74; Fig. 32.13,15), carinated pots with inverted tapering rim and rounded base from period II (Sinha and Verma 1977: 38,39; Fig. 17.13) and ink pot lid from period II (Sinha and Verma 1977: 69,70; Fig. 31.15). These are similar to those found at Balathal. Sonpur has also yielded terracotta skinrubbers (Sinha and Verma 1977: 122-3; Pl. XXXVII.3-6) from periods II and III, headscratchers from period II (Sinha and Verma 1977: 123; Pl. XXXVIII.1-3), hexagonal bitruncated amethyst barrel beads from period II (Sinha and Verma 1977: 102; Pl. XXV; Fig. 41.7), fragment of a 4-legged quern from period III (Sinha and Verma 1977: 140; Pl. LIIIA) and four coins of the elephant and hill type from period II (Sinha and Verma 1977: 68; Pl. XXIII.15-18). These too, are similar to those found at Balathal.

30. Sravasti

Sravasti is one of the most important Buddhist sites in northern India and is a major pilgrimage centre too. It lies in the Gonda and Bahraich districts of Uttar Pradesh. This is a place where the Buddha preached extensively. The site consists of the twin mounds of Sahet and Mahet. The mound of Sahet was identified as the Jetavahana monastery and Mahet as the city of Sravasti by Cunningham as early as 1876 (Cunningham [reprint]1968: 78). The site was later excavated by Vogel
Marshall and Sahni then continued excavations (Marshall 1914). Sravasti was then excavated by the Banaras Hindu University, Varanasi (Sinha 1967).

The ceramics common to Sravasti and Balathal are carinated pots with inverted tapering rim and rounded base in RW and BSW (Sinha 1967: 45, 47; Fig. 14.xxvi, 16.10), dishes of F6W with stamped concentric circles at the centre (Sinha 1967: 46; Fig. 16.3) and spouted bowls (Sinha 1967: 37; Fig. 9.xxviii). Sravasti has also yielded hexagonal bitruncated crystal barrel beads (Sinha 1967: 64; Fig. 19.35), agate leech beads (Sinha 1967: 62; Fig. 18.1,2) plain and appliqued glass bangle fragments (Sinha 1967: 72; Pl. XXV.6) and ringwells (Sinha 1967: Pl. VII, VIII) similar to those found at Balathal.

31. Tilaura-kot

Tilaura-kot is situated in the Nepalese terai and was identified as Kapilavastu, the capital of the Sakyas and the paternal home of the Buddha (Mitra 1972: 7). This site was excavated by the Archaeological Survey of India at the behest of the Department of Archaeology, His Majesty's Government of Nepal (Mitra 1972). Though three periods were identified in the course of excavations they were contiguous with no gap or break. They were dated from the 3rd century B.C. to no later than the 3rd century A.D.

Artefacts from this site which also occur at Balathal include pear shaped pots (Mitra 1972: 61: Fig. 16.CXXV, CXXVa-c, e-k), carinated pots with inverted tapering rim and rounded base in RW (Mitra 1972: 57-9; Fig. 15.CXVIII, CXVIIIa,b,f) and in F6W (Mitra 1972: 34: Fig. 7.XXII), ink
pot lid (absolutely identical to the one from Balathal) (Mitra 1972: 48; Fig. 12.LXIV), spouted bowl (Mitra 1972: 41; Fig. 9.XLII), coins of the elephant and hill type (Mitra 1972: 90,98; PI. XXVI.18) and a fragment of a 4-legged quern (Mitra 1972: 120; Pl. XLIIIA).

The beads common to both sites are globular carnelian beads with white etched dots (Mitra 1972: 133; Fig. 25.1,2,3), truncated carnelian bicone with white etched bands at both ends and lines of dots in between (Mitra 1972: 133; Fig. 25.10), black glass spheroids/oblates with white bands/spirals (Mitra 1972: 135; Fig. 24.16,17), cylindrical disc in shell (Mitra 1972: 137; Fig. 26.40), hexagonally facetted barrel disc in crystal (Mitra 1972: 137; Fig. 26.45), truncated crystal bicone (Mitra 1972: 137; Fig. 26.46), hexagonal bitruncated amethyst (Mitra 1972: 137; Fig. 26.48), and crystal barrel (Mitra 1972: 137; Fig. 26.49) and multi-facetted green jasper (facetted standard double pentagon) (Mitra 1972: 139; Fig. 27.17). Terracotta earstuds and arecanut beads similar to those found at Balathal were also found at Tilaura-kot (Mitra 1972: 139, 141; Fig. 28).

32. Vaisali
The ancient site of Vaisali has been identified with the modern village of Basarh in northern Bihar. The Buddha is supposed to have visited Vaisali often and the city is intimately associated with his legend. The mound itself lies outside modern Basarh and is called Raja Vishal ka Gadh. It was excavated in 1903-04 by Bloch and then by Spooner in 1913-14, their excavations revealed a number of seals engraved with the name of the city of Vaisali thus identifying the mound with the city (Deva and Mishra 1961).
The site was systematically excavated by the Vaisali Sangh in 1950 (Deva and Mishra 1961). The excavations yielded pear shaped pots (Deva and Mishra 1961: 38, 42; Fig. 17.57-8) carinated pots with inverted tapering rim and rounded base (Deva and Mishra 1961: 43, 45; Fig. 19.80, 80a) and hexagonal bitruncated citrine barrel bead similar to those found at Balathal. The site also yielded a number of mother goddess terracotta figurines (Deva and Mishra 1961: Pl. XII, XIII) terracotta heads (Deva and Mishra 1961: Pl. XV) similar to those found at Balathal.

The site was re-excavated by the Directorate of Archaeology and Museums, Bihar from 1958-1962 (Sinha and Roy 1969). Ceramics similar to those found at Balathal included pear shaped pots (Sinha and Roy 1969: 58-9, 87-8; Fig. 27.18, 40.25) carinated pots with inverted tapering rim and rounded base (Sinha and Roy 1969: 55-6; Fig. 26.15) and spouted bowls (Sinha and Roy 1969: 56; Fig. 26.17). Beads common to both sites include hexagonal bitruncated amethyst barrel beads (Sinha and Roy 1969: 172-3; Fig. 50.1-3, 6,7; Fig. 52.3; Pl. LXIII.3), globular carnelian beads with white etched dots (Sinha and Roy 1969: 176; Fig. 52.3), hexagonal bitruncated crystal barrel beads (Sinha and Roy 1969: 178,180;Fig. 53.2-6), hexagonally facettted barrel disc of crystal (Sinha and Roy 1969: 180; Fig. 53.20), cornerless crystal cube (Sinha and Roy 1969: 181; Fig. 53.20), multifaceted green jasper beads (Sinha and Roy 1969: 183; Fig. 54.18,19,22) and crenellated terracotta beads (Sinha and Roy 1969: 185; Fig. 55.2,6). Terracotta headscratchers (Sinha and Roy 1969: 203-4; Pl. XCIIV2,3) skinrubbers (Sinha and Roy 1969: 204) dabbers (Sinha and Roy 1969: 204; Pl. XCV) and coins of the elephant and hill type (Sinha and Roy 1969: Pl. XXXVIII.49-51) were also seen at both sites. The terracotta mother goddess figurines from Vaisali (Sinha and Roy...
Vaisali also yielded a large terracotta pendant (Sinha and Roy 1969: Pl. LXXXIV.5) and bells of copper/iron (Sinha and Roy 1969: Pl. LXXXV) identical to those from Balathal.

33. Rupar

The site of Rupar (District Rupnagar) on the left bank of the Sutlej, one of the few excavated sites of the Early Historic period in Punjab, was excavated by the Archaeological Survey of India (Sharma 1953). Pear shaped pots (Sharma 1953: 125; Fig. 4; 5.16,19) carinated pots with inverted tapering rim and rounded base (Sharma 1953: 125; Fig. 4: 5.17) and round bottomed votive tanks with tiny lamps on the rim (Sharma 1953: 128; Fig. 6.30) from Rupar are all similar to those found at Balathal. Rupar also yielded coins of the elephant and hill type (Sharma 1953: 125; Fig. 4).

34. Taxila

Taxila is the present name of the site of Takhasila, the capital of eastern Gandhara. It lies in the North-West Frontier Province of Pakistan. It was probably established by the Achaemenids who ruled Gandhara during the reign of Darius I (522-486 B.C.) (Raychaudhuri 1950: 240). It formed part of the conquests of Alexander the Great and subsequently became part of the kingdom of Seleucus Nikator who ceded it in turn to Chandragupta Maurya sometime around 310 B.C. It later became a viceregal seat of the Mauryan Empire. After the Mauryas it came under the sway of the Bactrian Greeks, Scythians, Parthians and Kushanans, till the Hunas laid it waste in the 5th century A.D. (Sharma 1953:131-4).
Taxila was excavated by the Archaeological Survey of India in the 1930s (Marshall 1951). From Marshall's findings at Taxila objects similar to those found at Balathal include pear shaped pots (Marshall 1951: 410; Pl. 122.32), carinated pots with inverted tapering rim and rounded base (Marshall 1951: 412; Pl. 122.49), round bottomed votive tanks with tiny lamps on the rim (Marshall 1951: 463; Pl. 136s), coins of the elephant and hill type (Marshall 1951: 760-1; Pl. 235.20-22), terracotta headscratchers of the single compartment type from the Mauryan levels (Marshall 1951: 426; pl. 126.174) and the double compartment type from the Greek period (Marshall 1951: 426; Pl. 126.171), terracotta skinrubbers (Marshall 1951: 425; Pl. 129x), fragment of a 4-legged quern (Marshall 1951: 486, Pl. 143.c), and an iron cobbler's knife/adze (Marshall 1951: Pl. 169.195).

Selected beads from Marshall's excavation at Taxila were studied in detail by H.C. Beck (1941). Beads common to Balathal and Taxila include globular carnelian beads with white etched dots (spot eye beads) (Beck 1941: 46; Pl.II.26,27), flattened leech beads of agate (Beck 1941: 47-8; Pl. III.5,6,37), hexagonal bitruncated carnelian barrel beads, dated at Taxila to the 7th/6th century B.C. (Beck 1941: 49; Pl. IV.2), trapezoid carnelian pendant dated to the 3rd century B.C. (Beck 1941: 49; Pl. IV.19), hexagonally faceted barrel disc of crystal dated to the 1st century B.C. (Beck 1941: 51; Pl.V.12), hexagonal bitruncated amethyst barrel beads dated to the 3rd century B.C. (Beck 1941: 53; Pl.VI.2,3,5,12), multifaceted green jasper (double hexagon/icohexahedron with square and triangular surfaces) (Beck 1941: 54; Pl. VI.37,40) and black glass spheroids with white bands/spirals (Beck 1941: 59,60; Pl. IX.2,31).
The Sirkap (Indo Greek) mound of Taxila was subjected to excavation by the Archaeological Survey of India (Ghosh 1948). A globular carnelian bead with white etched dots (Ghosh 1948: 74; Pl. X.2) similar to those seen at Balathal was found from the lower levels. These levels have been dated to the Mauryan period.

35. Kaundinyapura
The site of Kaundinyapura, situated on the left bank of the Wardha in district Amravati, Maharashtra, is a very important Satavahana site (Dikshit 1952). It has also yielded pre-Satavahana layers with the presence of NBPW. Artefacts common to Kaundinyapura and Balathal are hexagonal bitruncated crystal beads (Dikshit 1952: Pl. XXXII.11, 15), 4-legged querns (Dikshit 1952: Pl. XLIXB,C) and terracotta skinrubbers (Dikshit 1952: 106-7; XXXVIIIB.2, 3).

36. Kolhapur
Kolhapur was excavated by the Deccan College (Sankalia and Dikshit 1952). It lies on the left bank of the Panchganga, in the eastern part of the city of modern Kolhapur, Maharashtra. The Early Historic deposit at this site was identified as belonging to the Indo-Roman period. Facetted biconical crystal beads and 4-legged quern found here are similar to those found at Balathal (Sankalia and Dikshit 1952).

37. Nasik
Nasik (Sankalia and Deo 1955), a very ancient city on both banks of the Godavari, in the Nasik district of Maharashtra, was excavated by the Deccan College. The ceramics similarities from Nasik and Balathal extend only to the pear shaped pots (Sankalia and Deo 1955: 52; Fig. 7. T1c; Pl.
XI.2,3). Despite this there are many artefactual similarities. Nasik has yielded hexagonal bitruncated crystal barrel beads (Sankalia and Deo 1955: 88; Fig. 45.2), facetted biconical crystal beads (Sankalia and Deo 1955: 88; Fig. 45.8) and biconical carnelian beads etched in white with interlinked pentagons (Sankalia and Deo 1955: 88; Fig. 45.18). Nasik has also yielded plain and appliqued glass bangle fragments (Sankalia and Deo 1955: 88; Pl. XXI). Terracotta skinrubbers (Sankalia and Deo 1955: 101-2; Fig. 48.1-4; Pl. XXIII.4,6) and headscratchers (Sankalia and Deo 1955: 101-3; Fig. 48.5-8; Pl. XXIII.1,2,3,5) were also found to be common to both sites. Infact one of the headscratchers (Fig. 48.8) is decorated in a fashion identical to that of one from Balathal (No. 3463). Nasik has also yielded 4-legged querns (Sankalia and Deo 1955: 117; Pl. XXVIII) similar to those found at Balathal.

38. Nevasa

Nevasa (Sankalia et al. 1960) is an important Early Historic town on the banks of the Pravara in the Ahmednagar district of Maharashtra. It was an important trading centre during the Indo-Roman period. At Nevasa were found plain and appliqued glass bangle fragments (Sankalia et al. 1960: 446-51; Fig. 193) identical to those found at Balathal. It has also yielded a piece of a rotary quern (Sankalia et al. 1960: Fig. 199.5a) similar to those found at Balathal. The bangle fragments are ascribed to the Muslim-Maratha levels of the site.

39. Pauni

Pauni (District Bhandara) was an important Early Historic site of the Satavahana period in the Vadarbha region. It was excavated by S.B. Deo and J.P. Joshi (Deo and Joshi 1972). The site has yielded evidence of a
pre-Satavahana/Mauryan period. From this site was recovered a single coin of the elephant and hill type which is similar to those found at Balathal (Deo and Joshi 1972: 32-3; Pl. XLVI.4). This is, till date the southernmost discovery of this coin type and may represent an important regional boundary during the Mauryan period.

40. Prakash
The site of Prakash lies at the confluence of the Tapti and Gomai rivers in the Dhule district of Maharashtra. It was excavated by the Archaeological Survey of India in 1955 (Thapar 1967). It was an important chalcolithic site with an equally significant Early Historic phase. The site bore clearly defined Mauryan levels (Pd. II). From these strata were found pear shaped pots (Thapar 1967: 83; Fig. 26.40, 40a), carinated pots with inverted tapering rim and rounded base (Thapar 1967: 83; Fig. 26.41), ink pot lid (Thapar 1967: 77-9; Fig. 23.8a), a terracotta headscratcher (Thapar 1967: 120; Pl. XXVIA.11), terracotta skinrubber (Thapar 1967: 120; Pl. XXVIB.12), plain and appliqued glass bangle fragments (Thapar 1967: 113-4, 117; Pl. XXIIIIB.4; Fig. 37.21,23) and 4-legged quern fragments (Thapar 1967: 106; Pl. XX.1,3; Fig. 35.1,3) which are all similar to those found at Balathal.

4.5 Comparative analysis of specific artefacts from Balathal with those from other Early Historic sites

In order to better understand the above organisation of the distribution of artefacts from Balathal found at other contemporary sites in the Early Historic period they have been organised again according to the
artefact types. This has been done in order to show clearly how each artefact type stands as far as its geographical distribution at that time is concerned. Do any trends become visible? Is there a preference among groups of sites or particular sites for a single artefact or group of artefacts?

It was hoped that this exercise would also help in proving the hypothesis that specific artefacts can be regarded as markers for specific points in time in the history of Man. That is to say that particular artefacts could be said to be representative of very specific chronological time periods or episodes. To put it in the simplest words, can artefacts be used as a tool for dating cultural assemblages, especially in cases where other more traditional methods of dating are unavailable?

Here it must be noted that only artefacts of specific types have been considered. Artefacts which are unique in design and function rather than mundane are usually restricted to a specific chronological period. That is to say that they do not occur across the board like the more general objects of daily use. These artefacts thus become type fossils. This excludes those artefacts of such common shapes and types that are used even to this day and are non specific by nature, for example, iron knives, arrowheads, spearheads, terracotta discs, cylindrical objects, etc. There are also objects totally non-indicative in any nature, such as, hammerstones, iron lumps and fragments, etc. All such objects have been excluded from this comparative analysis as they have no relevance whatsoever on the present study.
To simplify an otherwise cumbersome list, the list has been presented in a tabular form. Specific references are available in the preceding passage.

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**Key to the Table**

1 = Pear shaped pots
2 = Carinated pots with inverted tapering rim and rounded base
3 = FGW dishes with central stamp.
4 = Spouted basins in RW
5 = Bell shaped lid
6 = Ink pot lid
7 = Votive tank with lamplets on rim

A = Copper cast coin of elephant and hill type
B = Iron Adze
C = Iron hoe/ploughshare blade
D = Hexagonally faceted bitruncated crystalline bead

G = Terracotta skinrubber
H1 = Globular carnelian bead with dots etched in white
H2 = Globular carnelian bead with a band of intersecting pentagons etched in white
H3 = Biconical carnelian bead with a band of intersecting pentagons etched in white
I = Plain and appliqued glass bangle fragments
J = 4-legged quern
K = Rotary quern
L = Handmade terracotta female figurine
L1 = Moulded terracotta female figurine

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4.5.1 A note on the 'Elephant and Hill' type of coins

Elephant and hill type coins identical to those from Balathal have been found from the excavations at Ahichchhatra (Sharma 1953: 138; Fig. 9), Kausambi (Sharma 1969: 83; Pl. LIII.12,13,14), Kumrahar (Altekar and Mishra 1959: 93-4; Pl. LXXA.14), Maheshwar-Navdatoli (Sankalia, et al 1958: 71.15-20; Pl. XII.15-17,19,20), Pataliputra (Sinha and Narain 1970: 49; Pl. XXIV.7), Pauni (Deo and Joshi 1972: 32-3, Pl. XLVI.4; Shastri 1974: 4-6), Runija (Dube and Muralidhar Reddy 1985: 22-3), Rupar (Sharma 1953: 124: Fig. 4), Sonpur (Sinha and Verma 1977: 68; Pl. XXIII.15-18), Taxila (Marshall 1951: 760-1; Pl. 235.20-22), Tilaura-kot (Mitra 1972: 90,98; Pl. XXVI.18), Tripuri (Dikshit 1952: 65-70), Ujjain (AARADG 1938-39; IAR 1956-57: 23, Fig.11) and Vaishali (Spooner 1917: 173; Smith 1938: 202, Pl. XXIII, Fig. 3).

Apart from regular excavations, coins of the elephant and hill type have also been found at Kamrej (Gadre 1939: 24), Kasarwad (Disalkar 1949:38, 41-2. Pl. III.10), Kausambi (Altekar 1958: 149-50), Padmavati (Trivedi 1956: 67, Pl. IX.5), Ujjain (Ramachandran 1951: 75, Pl. V.9; Smith 1938: 154 Reg. No. 29) and Vidisha (Jain 1961:305).
These are some of the most common coins found all over Northern and Central India between the 4th and 3rd centuries B.C., fifty-eight similar coins are reported just from the 1912-13 excavations at Kumrahar and Bulandibaug (Pataliputra) (Altekar 1951: 144).

Michener (1972: 157) identifies the elephant and hill type of coins as Mauryan round cast copper coins. Lahiri (1973: 30) on the other hand ascribes to them a greater antiquity. He identifies these coins as the 'pre-Alexandrian coinage of India' on the basis of the writings of Alexander's historian Nearchus who says Indians used cast and not hammered copper coinage (Lahiri 1972:29). Lahiri thus is of the opinion that these coins belong to the 4th century B.C. and maybe even to the beginning of the 5th century B.C. (Lahiri 1973: 30). This view is echoed by Gaur (1986: 69) who substantiates his views with excavated data from Atranjikhera where cast copper coins have been found in layers C14 dated to 540 B.C. (BM-194 540±150 B.C.). K.A. Nilakanta Sastri (1967: 122) is also of the opinion that cast copper coins are contemporary to punch-marked coins.

Excavations at Ahichchhatra also seem to agree with this as the lowermost strata (Stratum VII and VIII), dated to 300 B.C. and lower, yielded only uninscribed cast copper coins. Of the 6 found in the lowermost stratum (VIII) four belong to the elephant and hill type. Three coins from the next stratum (VII) also belong to this type. (Ray, S.C. 1987: 13-18)

Taking into consideration the above mentioned facts it seems quite suggestive on the basis of the elephant and hill type coins from Balathal,
that the site of Balathal was probably established in the pre-Mauryan period. The early 4th century dates from Balathal further strengthens this hypothesis (see Chapter 4.3 for further details regarding the dating of Balathal).

One of the main reasons for the confusion is that many of the sites are labelled Mauryan purely on the availability of NBPW. This is not necessarily valid as the NBPW levels from Hastinapura (Lal 1956) and Atranjikhera (Gaur 1983) have been dated the 6th century B.C. and those from Rajghat (Narain and Roy 1976: 25) to 490+-110 B.C. (TF-293) (Period IC) and 470+-110 B.C. (TF-292) (Period IA) (Period IC at Rajghat is ceramically very similar to Balathal (Abhijit Dandekar pers. comm.). Further mention may be made here of the fact that a large number of excavation reports of sites bearing similar artefactual assemblages to those of Balathal were written prior to the large scale use of C14 dating in India.

4.5.2 A note on the Terracotta Headscratchers

Whereas the purpose of the terracotta headscratcher is unknown its provenance is confined to pre-Mauryan, Mauryan, and immediately post-Mauryan (Sunga) strata. This makes it very important 'type-fossil' for the period 400-175 B.C.

There are essentially two kinds of headscratcher. The first category includes all the specimens from Balathal and similar artefacts from Ahar (Sankalia et al. 1969: 179; Pl. XI.6; Fig. 105.12), Kayatha (Ansari and Dhavalikar 1975: 137; Fig. 76.2; Pl. XVIII.2), Nagda (Banerjee 1986: 231-
The second category is rare and consists of similar objects with the cavity divided into two by means of a longitudinal partition. Examples are seen at Taxila (Marshall 1951: 426; Pl. 126.171) and Kakarehta (Sharma and Mishra 1992: 122; Pl. XXVIIIa.).

4.6 The flora and fauna from the excavations at Balathal: Their relationship with the artefacts

This section deals with the floral and faunal material recovered from the Early Historic levels during the excavations at Balathal.

4.6.1 The faunal assemblage and its interaction with the artefacts

The primary analysis of the faunal assemblage from Balathal (Thomas and Joglekar 1996) has identified the following animals:
01. Cattle- *Bos indicus* and *Bubalus bubalis*
02. Small bovids- *Ovis aries* and *Capra hircus*
03. Pigs- *Sus domesticus*
04. Dog- *Canis familaris*
05. Horse- *Equus caballus*
06. Elephant- *Elephas maximus*
07. Deer- *Axis axis, Cervus unicolor*
08. Antelopes- *Boselaphus tragocamelus, Antilope cervicapra, Tetracerus quadricornis*
09. Rodents, lizards and game birds
10. Molluscs

It has further been noted that there are a larger number of antelope from the Early Historic levels as compared to a larger number of deer from the Chalcolithic levels (Thomas 2000). This points to a possibly semi-arid environment during the Early Historic period with rainfall similar to that seen today, albeit with a more extensive tree cover and grasslands.

It has also been noticed by the archaeozoologists from their onsite observations that Balathal has yielded an exceptionally large number of cattle bones, far in excess of those seen from similar sites (P.K. Thomas pers. comm.).

The above-mentioned facts coupled with the phenomenally large number of cobbler's knives seem to point to a large scale exploitation of animal produce especially in the form of leather and skins. The presence of bones of wild game coupled with the artefactual evidence of arrowheads...
and spearheads clearly point to hunting as a common sport and a means of subsistence enhancement by the Early Historic occupants of the site. This is further reinforced by the presence of the remains of dogs that were no doubt kept for the purposes of security and their prowess during the hunt.

The iron plough-blades/hoes and the presence of terracotta toy cart-frames, hubbed wheels and bull figurines, clearly point to the use of cattle as draft animals at the site. The use of cattle as draught animals is very important, as during this period they were probably the primary means of transportation for both goods and people.

The presence of a number of very large terracotta beads points towards a possible ornamentation of the draft animals.

4.6.2 The floral assemblage from Balathal and its interaction with the artefacts

A preliminary analysis of the floral remains from Balathal has been conducted at this date Kajale (1996). This has yielded the following list of plants:

1. Wheat- *Triticum aestivum*
2. Barley- *Hordeum vulgare*
3. Rice- *Oryza sativa*
5. Gram- *Vigna radiata* (Green gram), *Vigna mungo* (Black gram)
6. Peas- *Pisum arvense* (Common pea)
7. Grape (?)- *Vitis??* sp.
8. Ber- *Zizyphus jujuba*
9. Wild okra- *Ablemoschus* sp.
10. Cucurbitaceae (Gourds/cucumbers/melons)- *Cucumis* sp.
11. Oilseeds- linseed/safflower type
12. Job's tears- *Coix lachryma-jobi*

As is clear from the above list, the Early Historic inhabitants of the site exploited a large number of domesticated and wild plant species. There is ample corroborative evidence of the farming/production of plant materials from the artefact assemblage. The iron ploughshare blades/hoes, sickles and other implements like knives and spades/hoes clearly point towards such activities. Further evidence of exploitation of plant materials comes from the charred grains found from storage jars and silos, indicating production and storage for future use. The manufacture and processing of foods and plant materials are evident from the profusion of mullers, pestles, and querns of various types.

The presence of what are probably the remains of grapes, which do not usually thrive in this kind of semi-arid environment, clearly points to two possibilities. The first is that grapes with their pips/seeds intact were brought to the site in the form of raisins. Or the second, that they were part of the dregs of a consignment of wine brought to the site in some container.

The fruit of the Job's Tears plant were probably used as beads (such were found intact from the Chalcolithic levels at the site). There is also a
probability that these seeds were used as a wild plant food. This is done in northeastern India even today by the (western) Nagas. They call it 'menjang' and use it as a grain substitute alongside millets of the *Setaria* sp. (Imtirenba Changkija pers. comm.).

4.7 Human remains from Balathal

Excavations in layer 3, Tr. C yielded the osseous remains of two individuals. The context was indeterminate due to the presence of large clots of burnt wattle and daub. These remains were carefully collected by sieving and were studied at the Deccan College palaeoanthropology laboratory (Mushrif et al. 1999).

These were the partial remains of two sub-adults individuals between five and ten years of age. Their young age precludes any sex-determination. The bones, in the case of the first skeleton, comprise cranial and vertebral fragments, and a humerus, radius and clavicle, all of the left side of the skeleton. Some fragments of the pelvic girdle were also recovered. The second skeleton is comparatively better preserved. The remains consist of a few cranial and rib fragments, three thoracic vertebrae, right humerus, left femur, left tibial head, and both fibulae. The complete left side of the pelvis was also found. A few phalanges and metatarsals were also found which, however, could not be positive identified as belonging to either skeleton.
Age estimation studies reveal that the first skeleton belonged to an individual aged between five and six years, and the second, between nine and ten years at the time of death.

The bones were probably buried in a shallow pit under the structure, which subsequently collapsed over them. These collapsed remains were found overlying the bones. A few of the bones were charred but this was a result of the burning of the site, not due to funereal rituals. This is evident, as there was no trace of green bone charring.

4.8 Craft Specialisations at Balathal

"Craft specialisation is best defined as differential participation in specific economical activities. Whenever there are fewer producers than consumers of a particular good, we recognise specialised production. Specialisation is identified in the archaeological record by a differential distribution of debris, tools, and facilities associated with production. Depending on the specific type of specialised production, such variability in the recovery of these data will be manifest among households, social classes, social contexts, communities, and/or regions.

Under certain circumstances, the products of specialised production systems will exhibit certain features such as standardisation, efficiency, skill, or regional variation. The key to using these data effectively to argue for the presence of specialist production is in demonstrating that they are appropriate economic responses to social, political, and environmental conditions. (Costin 1991: 43-4)."
The artefact assemblage, the faunal and floral remains, and the structural remains at Balathal point towards certain specific tasks/activities that may be construed as craft specialisations at the site.

1. Agriculture
The presence of agricultural implements, agricultural produce and the storage devices for the same clearly point to agriculture as one of the primary craft specialisations at the site. Some experts may argue that agriculture is a subsistence strategy and not a craft specialisation. The author begs to differ. Agriculture was and is one of the primary craft specialisations in any culture/society that has moved into any stage above that of the hunter/gatherers, with the possible exception of nomadic pastoralism. The proof of the pudding in this case truly lies in the eating, more people consume the agricultural produce than are involved directly in its manufacture, and this itself is evidence enough that agriculture is a craft specialisation.

2. Animal husbandry and Leather working
The large number of cattle bones recovered from the site and the evidence of their exploitation point towards animal husbandry of a possibly semi-sedentary nature and leather manufacture as interlinked specialisations. The use of their skins for leather manufacture and the manufacture of leather items as evinced from the large collection of cobbler's knives points to a definite leather working craft specialisation. This could not have been possible in the absence of an organised pastoral element. Thus both these specialisations are interlinked so closely that they may be construed as one.
3. Secondary working of iron
The presence of a large number of furnaces, furnace bases, tuyere fragments, and a small amount of slag definitely point towards the exploitation of iron on a scale beyond the requirements of a settlement of the size of Balathal. The presence of large scale iron workings and huge heaps of slag at the site of Iswal not far from Balathal point to the availability of pre-smelted iron for purposes of secondary working in the vicinity. The absence of large quantities of slag and the presence of abundant water and fuel also further bolster this claim. The large number and variety of iron artefacts from the site further support this.

Thus it is abundantly clear that the secondary reworking of iron and the manufacture of iron implements was a major craft specialisation at Balathal.

4. Trade
This is by far one the most important and yet most difficult craft specialisation to prove.

In the light of the various artefacts recovered from the site, the absence of their raw materials in the study area, and the absence of the facilities or debris of the processes of manufacture of these items, it becomes very difficult to explain their presence at the site. For the sheer variety of beads, terracotta female figurines, classic north Indian ceramics (tablewares), and oddities like terracotta headscratchers, there is no other possible hypothesis to explain their presence but that of trade. But, this does not yet prove that trade was a craft specialisation at Balathal.
For this one has to take into account the large number of terracotta sealings from the site alongside the geographical location of Balathal and its endemic/in-house produce. Towards achieving this aim the following reasons are put forth:

1.) The site has yielded two sealings bearing a device never seen before. It is that of a bullock-cart, a vehicle of paramount importance in the movement of goods during the Early Historic period.
2.) The site is located at a place which has a permanent water source in an area well known for water scarcity.
3.) The site produces items of two materials (iron and leather) critical to the army as well as the lay persons.
4.) The site is located on the most plausible route from the north (Taxila or Mathura via Sambhar/Bairat/Rairh), through Rajasthan (Balathal to Nagari) and finally into Madhya Pradesh (via Awra and Mandsaur to Ujjain) (Fig.).

The above-mentioned facts, while not absolute in themselves, provide enough circumstantial evidence to bolster a strong argument in favour of Balathal being an important trading station on an equally important trade route. Thus establishing trade as a craft specialisation at Balathal.