UNIT 10 ARCHAEOLOGY OF THE EARLY HISTORIC URBAN CENTRES IN NORTH INDIA: EMERGENCE AND CHARACTERISTICS*

Structure

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10.1 INTRODUCTION

While the earliest urban centres emerged in the third millennium BCE in the northwestern parts of the subcontinent, most of these cities and towns were abandoned around 1900 BCE. After a gap of nearly 1400 years, urban centres re-emerged not just in the northwest but also in the Gangetic valley in north India around 500 BCE. The term ‘Early Historic’ refers to a chronological period spanning in north India from approximately 500 BCE till about 500 CE. In contrast to the northwest, numerous Early Historic urban centres emerged in north India and many of these have been excavated. Despite the large number of excavations, we know far less about the Early Historic urban centres as compared to what we know of the Harappan cities. This lacuna is largely related to the kind of excavations that have been carried at most of these Early Historic sites. What is even more noteworthy is that even though nearly forty years ago, Amalananda Ghosh in the preface of his book, The City in Early Historical India, had written about the limited archaeological evidence on the Early Historic cities and towns, the situation is not any better even today.

The source material is not as abundant as one would have liked it to be. This stands in the way of a full evaluation of the early historical cities in all their material and cultural aspects. While the description of cities in literature follows a stereotype, the archaeological evidence is woefully insufficient and only emphasizes the need of laying bare the remains of a few early cities on an extensive scale. Only then shall we be able to understand them at least to the extent to which we understand the Indus cities (Ghosh, 1973: Preface).

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Why is it that hardly any sustained horizontal excavations have been undertaken at an Early Historic city/town to better understand urbanism, morphology and urban processes during this period? This is an issue which will be taken up for discussion later in this Unit. Given the paucity of archaeological evidence, at best a somewhat sketchy description of the Early Historic urban centres in the northwest and north India can be provided.

10.2 SURVEYS AND EXCAVATIONS OF EARLY HISTORIC URBAN CENTRES

In this Section we will review the archaeological data which is available for the analysis of urban centres in the Early Historic period in north and northwest India. A strategy that has been employed by archaeologists to identify possible urban centres based on surveys is known as settlement pattern studies. This involves undertaking a survey of archaeological sites in a defined geographical region and noting their location and size. Architectural features if any are mapped, and collections are made of pottery and other artefacts from the surface. Based on the sizes of sites in different chronological periods, site size hierarchies are worked out for different periods. The assumption is that if there is a multi-tiered hierarchy of sizes with a considerable difference between the smaller and larger sites, then perhaps the latter could be identified as urban centres.

One such survey (Erdosy, 1988) was carried out to better understand the emergence and development of urbanisation in the middle Ganga valley between approximately 1000 BCE and 300 CE. Erdosy undertook his study in the doab tehsils of Chail, Manjhapur and Sirathu in Allahabad district, Uttar Pradesh. The area selected for survey was nearly 2000 square kilometres, making it impossible to carry out a full coverage strategy. Erdosy therefore decided to use the conventional village to village survey method. In the next stage several large villages were selected for a more intensive survey or fieldwalking within a radius of 10 to 12 kilometres around them.

Based largely on pottery, four periods were identified: Period I (1000-600 BCE), Period II (600-350 BCE), Period III (350-100 BCE) and Period IV (100 BCE-300 CE). Erdosy reported that during his survey he identified 16 sites in Period I, 21 sites in Period II, 45 sites in Period III, and 56 sites in Period IV (see Table I).

<table>
<thead>
<tr>
<th>Chronology</th>
<th>Period I 1000-600 BCE</th>
<th>Period II 600-350 BCE</th>
<th>Period III 350-100 BCE</th>
<th>Period IV 100 BCE-300 CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sites</td>
<td>16</td>
<td>21</td>
<td>45</td>
<td>56</td>
</tr>
</tbody>
</table>

Further he developed a four tier hierarchy of sites based on sizes, namely, 0-5.99 hectares (Category A), 6-9.99 hectares (Category B), 10-49.99 hectares (Category C), and above 50 hectares (Category D). He found that in Period I, 15 sites belonged to Category A, while 1 site was in Category C; in Period II, 17 sites belonged to Category A, 2 sites to Category B, and 1 site each in Categories C and D; in Period III, 41 sites belonged to Category A, 2 sites to Category B, and 1 site each to Categories C and D; and in Period IV, 53 sites belonged to Category A, and 1 site each in Categories B, C and D (see Table II). However one must keep in mind that in estimating sizes, especially of sites that were occupied in different periods, it becomes difficult at times to assess the sizes during the earlier periods of occupation. Similarly the ceramics and
artefacts of earlier periods may not always be visible on the surface and therefore sites of earlier periods may be numerically under represented.

Table II: Site Size Categories in Different Periods

<table>
<thead>
<tr>
<th>Site Size Categories</th>
<th>Period I 1000-600 BCE</th>
<th>Period II 600-350 BCE</th>
<th>Period III 350-100 BCE</th>
<th>Period IV 100 BCE-300CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A 0-5.99 hectares</td>
<td>15</td>
<td>17</td>
<td>41</td>
<td>63</td>
</tr>
<tr>
<td>Category B 6-9.99 hectares</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Category C 10-49.99 hectares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Category D above 50 hectares</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>21</td>
<td>45</td>
<td>56</td>
</tr>
</tbody>
</table>

Erdosy noted that the site of Kausambi, was 12 hectares in Period I, 50 hectares in Period II, 200 hectares in Period III, and 226 hectares in Period IV. He also mentioned that the difference in size between Kausambi and other sites became marked from Period II onwards. In Period II the next largest site after Kausambi was 12 hectares, and in Periods III and IV it was 22 hectares each.

While surveys do have the potential to identify urban centres and also provide some clues about the reasons for their locations, ultimately it is only through excavations that one can obtain much more detailed information about cities and towns. In the case of Early Historic cities and towns of northwest and north India, a very large number have been excavated in the last 100 years. This list includes Bhir Mound, Sirkap and Sirsukh in the Taxila valley, and Charsadda, near Peshawar in the northwest; Bairat, Sonkh, Mathura, Hastinapura, Ahicchatra, Atranjikhera, Indor Khera, Kanauj, Ayodhya, Kausambi, Sringverpur, Sravasti, Tilaurakot, Ganwaria, Kasia, Rajghat, Buxar, Prahladpur, Vaisali, Rajgir, Pataliputra, and Campa in the north; Bangarh, Mahasthangarh and Chandraketugarh in the east (see Map 10.1). Of these the most informative are the excavations carried out at Bhita near Allahabad (Marshall, 1915), Sirkap in the Taxila valley in Pakistan (Marshall, 1951), Sonkh near Mathura (Härtel, 1993) and Mahasthangarh in Bangladesh (Alam and Salles, 2001).

So while numerous Early Historic cities and towns have been excavated, they do not add much to our understanding of them. This is linked to the nature of the archaeological practices that persist in our country even today. Many of these are related to intuitive research procedures, outdated methodologies in field and interpretation, poorly published reports, inadequate data, and lack of concern with theoretical questions. The conventional village to village survey persists, despite the shift to systematic survey methods in most parts of the world. In the former method, it is only the areas around the villages that are randomly surveyed, while the latter involves an intensive survey of a defined area with detailed recordings of all architectural features and artefacts. The primary aim of most excavations still seems to be the determination of broad cultural sequences involving vertical excavations. In cases where horizontal excavations are
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carried out, the emphasis has largely been on uncovering architectural features and recording artefacts of either aesthetic value or those that are useful as chronological indicators. What gets missed in these large-scale excavations is the detailed information about the exact provenance of artefacts that is essential for any meaningful analysis. In contrast in most recent excavations outside India we find a much slower, more rigorous recovery and documentation of the entire archaeological assemblage within particular architectural units. So in India what is urgently required is that instead of excavating more and more sites, the archaeologists should now focus on sustained and intensive excavations of a few promising Early Historic cities and towns.

Map 10.1: Early Historic Urban Centres [After Erdosy 1987: Figure I, Allchin, 1989: Figure I, Menon, et al, 2008: Figure 1].

10.3 EMERGENCE OF EARLY HISTORIC URBAN CENTRES

There has been a considerable debate concerning the factors responsible for the emergence of cities and towns in north India around 500 BCE. Among the most cited reasons are iron technology, social changes, emergence of artisans, traders and craft guilds, internal and long distance trade facilitated by the opening of trade routes in the northwest, political developments, and the rise of Buddhism and Jainism. The most controversial has been the role of iron tools in the clearance of forests and the use of iron ploughs for cultivation, particularly in the middle Ganga valley. It was Ram Sharan Sharma (2006), perhaps taking his cue initially from Damodar Dharmananda Kosambi (2006), who made a causal link between plough agriculture, an increase in settlements, surplus production and the beginning of towns and cities. He also argued that iron tools facilitated transport and other aspects of trade as well as crafts. The traders and artisans who were the primary residents of these newly emerging urban centres were also drawn to the new religions, Buddhism and Jainism, which arose around the same time.

Not everyone, however, agrees about the seminal role of iron technology. In particular it is the archaeologists who have expressed their reservation about the importance of
iron tools. For example, Niharlanjan Ray (2006) based on his quantitative analysis of the iron tools from several archaeological sites, pointed out that these were not numerically adequate for producing the necessary surplus. He added that at the time the reliance was still on the hoe and the wooden plough, however ineffective these may have been. Further, as the archaeological evidence showed a far greater number of weapons, he speculated about their possible role in the formation of states. Dilip K. Chakrabarti (2006) too played down the role of iron as a contributing factor to the creation of the agricultural base, which he felt was in existence in the preceding neolithic-chalcolithic periods. Nor did the beginning of the use of iron from about 1000 BCE or even slightly earlier usher in any dramatic change. He in fact attributed political power to be the causative factor. Another archaeologist, Shereen Ratnagar (2006), has also critiqued the causal link that has been made between the expansion in cultivation and the use of iron plough in Magadha in the mid first millennium BCE. She raises several very important questions, including the efficacy of iron ploughs as against the more commonly used wooden plough, and an over emphasis on rice cultivation as a critical factor in the increased agricultural production. However it must be added that she sees the significance of iron elsewhere, for instance, the role it played in the construction of stone buildings, cart axles and wheel spokes, ship anchors and glass production. Further, based on a survey of settlements, dated between 1500 BCE and 300 CE in Kanpur district, Makkhan Lal (2006) has shown that there was no relationship between the extensive use of iron tools and large scale forest clearance.

Thus we find that for almost fifty years, roughly from the middle till the end of the last century, the focus of many of the historians and archaeologists has remained limited to the general factors responsible for ushering in urbanisation in the mid first millennium BCE. This issue has perhaps reached a stalemate and if at all it has to move forward then we need to get into the specificities of each urban centre. Further unless a few of these cities and towns are systematically surveyed and excavated afresh on a sustained basis with recent methods of recovery and documentation, we will not be able to understand their emergence any better.

10.4 CHARACTERISTICS OF EARLY HISTORIC URBAN CENTRES

In this Section we will examine some of the characteristic features of Early Historic urban centres. These include sizes, fortification, spaces immediately outside the urban centres, layouts, public and religious buildings, houses and craft production.

10.4.1 Sizes

The scanty data that we have about the Early Historic cities and towns is apparent from the lack of knowledge of even basic information such as their sizes. While estimates are available for the fortified area of some of the urban centres, the total size of most of them remains unknown. For instance, the fortified areas are as follows: Pataliputra (1200 hectares), Mathura (295 hectares), Taxila (Bhir mound is 70 hectares, Sirkap is 78 hectares, and Sirsukh is 137 hectares), Kausambi (200 hectares), Rajgir (200 hectares in Phase I and 100 hectares in Phase II), Ahicchatra (180 hectares), Sravasti (160 hectares), Rajghat (40 hectares), Atranjikhera (64 hectares), Tilaurakot (20 hectares), Bhita (14 hectares) (Erdosy, 1987: 2), and Indor Khera (12 hectares) (Menon, et al, 2008). Some cities and towns were either not fortified or we have no information such as Sringaverpur (40 hectares), and Jhusi (30 hectares). Kausambi and Bhita had settlements outside the fortified areas too. In the case of Kausambi the unfortified area was 25 hectares and for Bhita it was 5 hectares. The site of Rajghat
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may have been a citadel area whereas the more extensive occupation lay outside at Sarai Mohana on the opposite bank of the Varuna (Erdosy, 1987). Thus we find a large variation in site sizes. Although some archaeologists have tried to work out a typology of urban centres based on site sizes (Allchin, 1989), such an exercise remains problematic and neither is it indicative of the actual activities that were being carried out there in the past.

It would have been interesting to compare urban centres that are closer in size as well with those that are much smaller or larger. However we do need to keep in mind that many of these urban centres may not have been contemporary to each other. So along with sizes we also need better data on the chronology of these urban centres, including dates for the different phases. Moreover questions regarding the various functions of these differently sized urban centres can only be addressed if we have better archaeological data.

10.4.2 Fortifications

Many of the Early Historic urban centres were fortified settlements, although at times habitation areas extended outside the walled area as at Kausambi and Bhita. Many of these fortifications were truly monumental in nature. For instance, at Kausambi, Rajgir, Ahicchatra, Mathura, and Atranjikhera, the walls were nearly 40 metres across the base, the height was at least 15 metres, and the length was over 6 kilometres (Erdosy, 1995: 111). Their ramparts at times had revetments of baked bricks (Kausambi) (see Figure 10.1) or alternately wooden planks were used for internal support (Pataliputra) (see Figure 10.2). There is also an instance of parapet walls of stone (Rajgir) (see Figure 10.3) being built on top of the ramparts. It has been suggested that these city ramparts may have served multiple functions, as protection from floods and invading armies or even a symbolic one where the city boundaries were clearly demarcated from the countryside (Erdosy, 1987). There could have been other functions too of these ramparts with several gateways. Could one of these functions have been to control or regulate movement of people both into them as well going out? Perhaps certain sections of the population were also kept out, an aspect which will be discussed in greater detail in the next Section.

10.4.3 Spaces outside Early Historic Urban Centres

Cities and towns in the Early Historic period may have consisted of two types of spaces: ‘inside’ and ‘outside’. While the ‘inside’ spaces comprised the habitation areas within the fortifications, the ‘outside’ spaces included the peripheral zones beyond the fortifications. Akira Shimada (2009) has recently suggested new ways of conceptualizing some of these ‘outside’ spaces where he finds an overlap between Buddhist monasteries and other cultic objects, urn and ‘megalithic’ burials and memorial pillars at several sites in the Deccan like Amaravati, Nagarjunakonda and Sannathi. That the Buddhist monks not only preferred to live in or close to burial sites, but may have also participated in the death rites of the lay followers is a possibility that cannot be precluded. Shimada has made the point that while texts visualise monastic spaces as exclusively religious, archaeological evidence suggests otherwise. ‘While monasteries were located on the fringe of the city or town, this peripheral area constituted a kind of space which allowed the accommodation of wider social groups, such as settlements for heretic and outcaste people’ (Shimada, 2009: 233). In fact it is time that archaeologists excavating Early Historic urban centres shifted their attention to these ‘outside’ spaces.
Figure 10.1: Brick Rampart at Kausambi [After Sharma, 1960: Plate XIII]
Such an endeavour has been made at Indor Khera, located in the upper Ganga plains, where several mounds outside the main settlement have been excavated. Among these was a small mound about 200 metres north of it where several non-domestic structures in several structural phases dated between 200 BCE and 500 CE were excavated during the season 2009-10 (Indian Archaeology: A Review, 2009-10, hereafter IAR). It may be pertinent to mention that in the upper levels a square shrine was exposed, which on plan is very similar to Temple 2 of the Gupta period at Bhitari in the middle Ganga plain. There is also a copper plate inscription, dated to the reign of Skanda Gupta, which was found in the probing made by Archibald Campbell Carllile (1879) at Indor Khera between 1874 and 1876. The inscription mentions a grant to the temple of Savitâ near Mardasvâna adjoining Indrapura and a guild of oilmen from Indrapura are ordered to maintain this grant. What is interesting is that there is no memory of there ever being a temple or this particular mound being a ritual space. In fact not only
has the mound been deliberately destroyed by the local inhabitants even in the recent past, they were unwilling to accept that there could ever have been a temple there as for them it is only an image, however fragmented it may be, which denotes sacredness. Excavations on another mound, nearly 600 metres northeast of Indor Khera also revealed the plinth of possibly a temple of the early medieval period (*IAR, 2009-10*) and in fact this is considered as ritual space both in memory and current practice.

At Sonkh, nearly 400 metres north of the citadel area was excavated an apsidal sanctuary. The first phase was dated to the beginning of the first centuries BCE and in the second phase, dated to first-second centuries CE, another temple was built partially on the walls of the earlier structure. According to Härtel (1993) the second temple was that of a Naga cult based on the finds of certain architectural pieces, like the lower lintel of the southern gate depicting a Naga court scene or a pillar fragment with a Nagaraja under a seven-headed cobra-hood in the medallion. Further, immediately to the north of this temple was found a monastery like building with rows of cells on three sides of a courtyard (see Figure 10.4). There are also the examples of stupa-monastery complexes at Piprahwa (see Figure 10.5) and Salagarh near Ganwaria located in the middle Ganga plains. (Srivastava, 1996)

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Figure 10.4: A Temple-Monastery Complex Outside the Town of Sonkh [After Härtel, 1993:417]
Some other examples would be the Dharamrajika stupa, contemporary to the Bhir mound but located at some distance from it, in the Taxila valley in the northwest. Similarly Buddhist monasteries and stupas at Mohra Moradu, Pippala and Julian were located within close vicinity of Sirsukh, also in the Taxila valley (Marshall, 1951). These will be discussed in greater detail in Unit 14.

10.4.4 Layouts

Apart from fortification, another feature of the Early Historic cities was an element of planning, particularly at Sirkap in the Taxila valley (Marshall, 1951), and Shaikhan Dheri at Charsadda (Coningham and Ali, 2007) in second-first centuries BCE. However it needs to be noted that initially urban centres emerged organically out of the existing rural settlements and with not much evidence for planning as at Bhir mound in the Taxila valley which is dated to the fifth century BCE. It is only when the new city of Sirkap was built by the Bactrian Greeks in the second-first centuries BCE that we encounter a grid plan settlement. As Marshall (1951: 4) describes the

...city was laid out on the typically Greek chess-board pattern, with streets cutting one another at right angles and regularly aligned blocks of buildings. Notwithstanding that the city was several times destroyed and rebuilt and that many transformations were made
in individual buildings, this Greek lay-out was on the whole well preserved down to the latest days of the city’s occupation.

Similarly, at Charsadda the earlier city, Bala Hissar, was unplanned and only when the new settlement came up at Shaikhan Dheri, do we see evidence for the grid plan (Coningham and Ali, 2007). At Sonkh (Härtel, 1993) and Bhita (Marshall, 1915) too, from the second century BCE, elements of planning, with broad parallel roads with easy access to an individual block of buildings, are visible (see Figure 10.6).

Figure 10.6: Streets and Houses at Bhita [After Marshall, 1915: Plate XII]

There are several implications of planning and it is important to understand all of them. One is that it is indicative of political authority playing a major role in the setting up of cities. The advantage of this grid plan is that it enables the rapid construction of a new settlement as well as subsequent additions to be made with ease and without disrupting the symmetry of the city layout as urban population increases. Another aspect of planning is the division of cities into different blocks that are separated by streets wide enough for vehicular traffic. The houses in these blocks are separated from each other by narrow lanes, and many of these could be accessed only by walking through them.

Large scale baked brick construction, particularly of domestic houses, began from the third century BCE at Raighat (Narain and Roy, 1976) and Kausambi (Sharma, 1969).
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and from the second century BCE at Sonkh (Härtel, 1993), Indor Khera (Varma and Menon, 2015) and Bhita (Marshall, 1915). This will be discussed in more detail in a later section. There is also some evidence for public brick and terracotta drains, masonry wells and tanks that suggest the presence of a civic authority. A few houses as well as streets and lanes were provided with burnt bricks and terracotta drains for the disposal of excess rain water at Rajghat, Kausambi, Hastinapur, and Mathura (Roy, 1986: 104-105). At Rajghat (Narain and Roy, 1976), a ring well enclosed by a brick pavement was located between two houses. Similarly public wells have been reported from Sonkh (Härtel, 1993) as well, for instance, a square public well of burnt bricks built on a platform (4×4 metres) at a street corner between two blocks. A brick complex comprising of three tanks with a silting chamber, connecting channels as well as an inlet and outlet channels, has been reported from Sringaverapura (Lal, 1993). The source of water is considered to be the Ganges river from which overflowing water would enter the tank via the inlet channel. The outlet channels also led to the river from the opposite direction. Clearly this tank complex was meant to provide water for the entire or major parts of the settlement.

10.4.5 Public and Religious Buildings

Several public and religious buildings have been reported from within the Early Historic cities and towns. The most well-known is a large rectangular pillared hall that was excavated at Kumrahar (Pataliputra) by David Brainerd Spooner in 1912-13. This has been associated with the Mauryan period but it was short lived as it was destroyed by fire in the second century BCE. During the excavation, a thick layer of burnt material, particularly wood ash was found. The excavators, based on this evidence have conjectured that the pillared hall may have had a massive superstructure or roof of timber. Eighty monolithic stone pillars were dug into foundation pits, ranging from 1.52 metres and 1.83 metres in depth. Over the foundation a raised plinth (nearly 4 metres × 33.5 metres) was built. A canal, nearly 12.6 metres wide and 3 metres deep, has also been reported to the south east of the hall (Spooner, 1916; Altekar and Mishra, 1959; Alchin, 1995: 237-38). So far there is little clarity about the function of this pillared hall. Due to the limited scale of excavation it is not known whether it was an isolated building or whether it was part of a palace complex. Govardhan Raj Sharma while excavating at Kausambi (IAR, 1960-61; IAR, 1961-62; IAR, 1962-63; IAR, 1963-64) identified a ‘palace-complex’, which he claimed belonged to king Udayana, a contemporary of Gautama Buddha. However, such a claim was later refuted by Braj Basi Lal (1984-85) who argued that the ‘palace’ dated to the sixteenth century CE and not the sixth century BCE. Thus so far the only palace complex that has been identified at any Early Historic city is the one at Sirkap, which will be discussed in Unit 14.

Unlike the meagre evidence about public buildings or palaces, there is much more data on religious buildings that existed within cities such as at Sonkh, Kausambi, Ganwaria or Sirkap. At Sonkh (Härtel, 1993) a temple was excavated dating to the first three centuries of the Common Era. It however underwent frequent reconstructions and enlargements over nine structural phases. To begin with, in Phase 1 there existed a square building, to which an apse was added in Phase 2. Between Phases 5 and 8, the temple building had been constantly enlarged. Finally in Phase 9, this building had been converted once again to a square shrine that comprised of a raised platform, which could be accessed by two steps each from the north-eastern and south-eastern corners. At Kausambi (IAR, 1953-54; IAR, 1954-55; IAR, 1955-56; IAR, 1956-57) the Ghositarama monastery complex was located inside the fortified city. Similarly at Ganwaria, at least four square shrines and several monasteries have been excavated from within the city (Srivastava, 1996) (see Figure 10.7). The religious buildings found inside the city at Sirkap will be discussed in Unit 14.
10.4.6 Houses

Leaving aside the urban centres in the Taxila valley (see Unit 14 for a detailed discussion), considerable information on houses comes principally from Sonkh, Indor Khera and Bhita. As mentioned earlier, evidence for well-planned baked brick houses at Sonkh comes from about the second century BCE. Typically, a house (Block A) at Sonkh could have seven rooms, arranged along a rectangular inner courtyard measuring 5.0 metres × 9.5 metres (see Figure 10.8).

The access to this house from road 1 (nearly 4.0 metres wide) was through a narrow lane (0.8-1.0 metres wide) leading to the courtyard (Härtel, 1993: 36). In the northeast corner there was another access through a narrow path (about 1.0 metre wide) leading to road 4 (nearly 4 m wide). In the north was a large rectangular room (2.50 metres × 6.50 metres) with carefully laid brick flooring and remains of a possible bench of hard clay, which opened onto the inner courtyard. The paving in the inner courtyard necessitated the laying of a drainage channel which continued northwards under the paved flooring.
of the large room and then possibly through an opening in the northern wall onto road 4. Next to the drainage channel was embedded a large soakage jar. The eastern limit of the courtyard was set by a long wall without any opening, possibly serving as a partition wall between Houses A and B. Heaps of roof tiles lying on the floor of the courtyard were found in front of this partition wall. Immediately to the east of House B was House C, the remains of which are too scanty. Separating House C and House D was a 2.0 metres wide lane. In fact House D (measuring 11.75 metres × 15.0/13.75 metres) seems to be open on all four sides. While Houses A and B could be accessed through a narrow lane, the entrance to House D was through a very large outer courtyard (11 metres × 4.50/5.30 metres) abutting road 4. On the southern side of the outer courtyard was a door through which one entered the inner courtyard (11.75 metres × 9.25 metres). All the seven rooms opened onto this inner courtyard. Most of the rooms were of similar size (5.0-5.5 square metres) except one smaller room (1.5 metres × 1.9 metres) in the southwest corner that had a ring-well and a water jar. Unlike the public well mentioned earlier this was clearly a private well solely for the residents of House D. The remains of the roof, pieces of roof tiles, ridge tiles and pinnacles, were found in several rooms. In the inner court was found a large storage jar. There were also traces of fireplaces in the outer and inner courts, apart from a brick firing facility (hearth/chullah) in the middle room of the southern row.

Figure 10.8: Houses at Sonkh [After Härtel, 1993: 36]
At Indor Khera parts of seven houses were excavated in an area of about 465 square metres (see Figure 10.9). Walls in all cases were oriented in the cardinal directions. These were constructed both of mud-bricks as well as burnt bricks. Mud-bricks measured about 38-42 centimetres × 22-24 centimetres × 5-6 centimetres, while the baked bricks measured 36-44 centimetres × 22-24 centimetres × 5-6 centimetres. There were also traces of mud plaster on the bricks. Two types of floors were recovered, of which the majority were of packed yellow mud. The second type, of which only one example has been found, was of crushed rammed potsherds or terracotta nodules, giving a pinkish appearance. No roofing material was found in the excavations. Considering the evidence that has been found, it is difficult to say whether these houses had more than one storey.

Figure 10.9: Houses at Indor Kheda [IDK, Plan 1] [Plan by Supriya Varma]
To get a better idea about the houses at Indor Khera, two of them which were built one above the other will be discussed in some detail. The portions of the northernmost house, that is, House 1A (see Figure 10.10) occupied an area of about 65.25 square metres (8.70 metres × 7.50 metres). All the walls were constructed of baked bricks. This is however not the complete house as it was not possible to excavate to the north and west as the mound had been cut away in recent times. To the south lay House 2A, that was separated from House 1A by an open space measuring about 2.70 metres in width. The excavators have identified three rooms as well as a possible interior open space/courtyard, the latter measuring at least 8.87 square metres (Varma and Menon, 2015). A separate part of the inner court was a baked brick platform, measuring about 8.60 square metres (3.25 metres × 2.65 metres), constructed of large brickbats laid flat. Thus, the interior open area was at least 17.47 square metres. From the inner court was a possible entrance into the open area to the south. However, the excavators are not sure whether this was the only entrance into the house or there were others in the north or the west. Another entrance within House 1A led from the brick paved area into room 1. A third entrance led from the interior open space into room 3. This interior open space was clearly an area enabling movement in this part of the house as well as access to the other rooms.
On top of some of the walls of this baked brick house (1A), another house of mud-brick (House 1) was built, perhaps at some point in the early centuries CE. There may have been a shrinking in the size of the house, as no walls were found in the northern area. The mud-brick walls were also built about 20 centimetres both northwards and eastwards of the baked brick walls. The household of House 1 seems to have shifted the northern and southern walls of room 1 by constructing new walls of baked brick. Thus, there seems to have been a difference in the manner of construction between the two houses. In the case of House 1A, all the walls were made of burnt bricks. On the other hand the walls of House 1 were largely made of mud bricks, although there is one room that had a single wall made of mud-brick and the other three walls of burnt bricks. Not only this, all the three entrances were blocked off at this stage to construct House 1. This building of a new house over an earlier one and the blocking off of the entrances could indicate a generational shift of the original household. To the east of House 1, portions of another house (House 5) were exposed. An open space of about 0.50 metres lay between Houses 1 and 5.

From Bhita we have detailed information about six houses belonging to different phases (Marshall, 1915). The earliest complete house (termed by the excavator as ‘House of the Guild’) has been dated to the Mauryan period and is built of baked bricks. The plan of this house consisted of an open rectangular courtyard, bound by twelve rooms on all four sides. The excavator has reported that the walls of the rooms on the southeastern side are thicker and have deeper foundations, thereby indicating that there may have been a second storey. However, this house had ceased to exist by the first century BCE when there was more extensive construction of baked brick houses. Of the six complete houses that were excavated, five were built in the first century BCE. Immediately to the northwest of the ‘House of the Guild’ was built a house termed ‘House of Nagadeva’. The latter was built on a slightly different plan. In this case in addition to the basic plan of eleven rooms around an inner courtyard, there were three rooms in front and these were separated from the rest of the house by another open courtyard. The house was accessed from a wide road and on two sides there were narrow lanes. To its southeast where the ‘House of Guild’ had once stood, but which had collapsed by the time the ‘House of Nagadeva’ was built, was the third open courtyard (see Figure 10.11). It is likely that the three rooms in the front were used for crafting activities, although the excavator has interpreted them as shops. We need to keep in mind that in the ancient past most of the craft production took place within households. It is also likely that in some houses there may have been separate work and living areas while in others the production space may have juxtaposed with the living arrangements as has been observed at Indor Khera. (Varma and Menon, 2015)

A significant point about house planning is that all the houses, whether at Sonkh, Indor Khera or Bhita, appear to be independent spatially, with no use of party walls. The lack of party walls at these Early Historic urban centres, unlike those of the Harappan period, does seem to indicate a level of architectural independence of houses and households. However, while there may have been this kind of independence, this by no means suggests lack of social connections between households; in fact, it appears from the shared use of open spaces for household and craft activities at least from Indor Khera that there was considerable interaction between adjacent households. It also needs to be pointed out that the differences in house sizes need not be taken as a measure of wealth differences. Very much the same range of artefacts was found in houses of different sizes. This may suggest that the difference in sizes of houses may relate more to household size than anything else.
10.4.7 Craft Production

Urban centres are often the loci of political, ritual and craft activities. Craft indicators have been identified at several sites as early as Marshall’s (1915) work at Bhita. These include moulds for printing on cloth or pottery, crucibles and ‘jeweller’s melting pots’ and ‘dabbers’. Although some of these objects are mentioned in relation to a house, we do not have more specific information as to their exact location vis-à-vis rooms or open spaces. Moreover, the concentration remained focused on stray artefacts rather than documenting other kinds of evidence such as debitage or waste. The same kind of information has been cited from the urban centres in the Taxila valley (Marshall, 1951). Pottery stamps, which indicate evidence for pottery production, have been reported.
Evidence for glass production has been noted at Kopia in eastern Uttar Pradesh. Recent excavations at the site have revealed indicators for glass working in the form of a furnace, tuyères, pot crucibles with molten glass and thousands of chunks and wasters of raw glass (Kanungo, 2010; Kanungo, et al, 2010). These were found in the northwestern part of the mound outside the fortified area. Two radiocarbon dates of charcoal samples from the furnace of the second century CE suggest that production took place in the Sunga-Kushana period (200 BCE-300 CE). Though there is an oblique reference that the working and living areas were separate in the northern part of the site, there is no structural evidence for actual workshops within which glass was produced.

While substantial work has been done on Harappan crafts from the point of view of technological processes, spatial contexts and organisation, there is hardly anything that is known about aspects of technology and production in the Early Historic period. For the latter, the concentration had largely focussed on stray artefacts rather than documenting other kinds of evidence such as debitage or waste, although more contextual information on craft production in the Early Historic is beginning to emerge from sites excavated more recently. This, however, is still fragmentary in nature, in contrast to the archaeological evidence on ceramic and terracotta production from the site of Indor Khera. This is in the form of tools, such as anvils, pivot stones, pottery stamps, bone engravers, stone polishers (see Figure 10.12) firing facilities; lumps, rolls and pellets of clay and terracotta that represent raw material used for various processes and objects; deposits of sand used perhaps for tempering; unbaked artefacts; wasters or over-vitrified material; rejects or misshapen objects; as well as the variety of ceramic and terracotta artefacts that were being produced (Menon and Varma, 2010). More important, this range of evidence has been recovered concentrated within seven adjacent houses at the northwestern edge of the ancient town of Indor Khera.

Figure 10.12: 12a. Pivot Stone from Indor Khera; 12b. Anvil from Indor Khera; 12c. Pottery Stamp with Two Designs from Indor Khera [Photograph by Supriya Varma]
Coningham (1997) has surmised from the evidence on craft indicators from Bhita and Taxila as well as Anuradhapura in Sri Lanka that the Early Historic urban centres showed a strong preference for multiple crafts co-occurring together within the same space. Although the evidence cited for such a generalisation is too scanty and much more work needs to be done, yet he has validly pointed out that the normative pattern of space delineated for separate crafts at Early Historic urban centres as described in the \textit{Arthaśāstra} does not show up archaeologically.

\section*{10.5 DEBATES ON EARLY HISTORIC URBAN CENTRES}

There are two aspects of the Early Historic urban centres about which there is little controversy. The first is that many of them were either centres of political power or were directly linked to them and the second is that very often they were located along trade routes. What is also important to note is that long distance trade, whether with the Roman world, Central Asia or within the subcontinent, contributed to urban growth, particularly in the period between 200 BCE and 300 CE. While a fair amount of attention has been paid to the trading networks with the Roman world or Central Asia, not enough archaeological research has been done to bring out the details of trade within different parts of the subcontinent. It has been rightly pointed out by Brajadulal Chattopadhyaya (1994a: 179) that it was this wide exchange network within the subcontinent that accounts for a remarkable uniformity in material culture across Early Historic sites. However it is only when artefacts and ceramics across sites are closely examined will we have a better idea about the linkages that existed locally, within a region or across different regions. It has also been pointed out by Chattopadhyaya that the initial phase (600-300 BCE) of Early Historical urbanism had the middle and upper Ganga valley as a distinct epicenter. Further it was in the subsequent phases (300-100 BCE and 100 BCE-300 CE) that urbanism in stages spread to other parts of the subcontinent. It may be added that apart from the upper and middle Ganga valley, another region where urban centres emerged between 600-300 BCE was the northwestern part of the subcontinent.

There is some debate among historians about the extent of decline of urbanism in the period between 300 CE and 1000 CE. While R. S. Sharma (1987) held that all the urban centres in north India had declined, Chattopadhyaya (1994b: 151) has argued instead that not only did some of the earlier urban centres survive but that new urban centres, like Ahar (near Anupshahar) and Sankara in Aligarh district, also emerged in this period. As most of the Early Historic urban centres were closely linked with the successive political powers, be it the \textit{mahajanapadas}, Mauryans, Shakas, Kushans or Guptas, their fortunes were inextricably connected too.

The interconnectedness of political power, internal trade and urban centres is perhaps indicated by the remarkable parallels between Indor Khera and Sonkh (separated by a distance of a little over 100 kilometres), not only in terms of material culture but also in their histories. For instance at both these sites the earliest occupation began in the Iron Age (often identified by the Painted Grey Ware) and towns emerged around the second century BCE. From about the fourth century CE, there was little evidence of regular remains of houses at both Sonkh and Indor Khera; instead several unconnected walls were recovered in the levels until the tenth century CE. Thereafter, once again houses were exposed but from then on, both at Sonkh and Indor Khera, their alignments were diagonal to the cardinal directions. Carlleyle (1879), while quoting from the historical memoir of Kuar Lachman Singh of Bulandshahar, mentions that Dör Rajputs from Rajasthan are believed to have settled in this area around the end of the tenth century.
CE. In contrast, houses at both these sites in the period between the second century BCE and the third century CE were always built in the cardinal directions and through successive building phases. In the upper levels of the mound, at least on the northern edge, there is evidence of a medieval fort, which is held to have been renovated during Jahangir’s time by a local chief Ani Rai, of Anupshahar. Härtel (1993) has suggested that Sonkh emerged as a town from about the end of the second century BCE and continued as an urban centre till the third century CE. Thereafter there is evidence of destruction and decay, leaving nothing but fragments of mostly unconnected walls from about the fourth till the tenth centuries CE. There may have been a short period of abandonment, which was then followed by the construction of a caravanserai and slightly later by residential areas in the period between the tenth and sixteenth centuries CE. However from then on the older alignment of cardinal directions was no longer followed; instead the houses were built diagonally to the cardinal directions. Still later, a fortress of baked bricks was built either during the time of Sher Shah or the Mughals. Finally in the seventeenth century the brick fortification was converted into a mud fort and a moat was added.

Further, within specific micro regions, as one urban centre declined, another may have emerged in close vicinity. For example, in the middle Ganga-Kalinadi doab area, Indor Khera existed as a small urban centre between 200 BCE and 300 CE. In the early medieval period, it appears that a new urban centre arose at Ahar, about 25 kilometres to the northeast of Indor Khera along the bank of the Ganges river. Ten inscriptions have been found from this centre, Ahar, that have been dated between 867 and 904 CE, which suggests it may have been part of the Gurjara-Pratihara empire. These inscriptions name this settlement as Tattānandapura (Chattopadhyaya, 1994b). While we know that Ahar was a qasba in the Mughal period, we do not as yet have any information about its history in the intervening period. It also seems that a qasba came up at Debai, about 7 kilometres to the south-east of Indor Khera, in the first half of the fourteenth century CE. All this suggests that even within a micro-region, the loci of urban centres may shift periodically depending on the larger political and economic requirements and dynamics. Instead of visualising distinct phases of urbanisation (early historic) and deurbanisation/urban decay (early medieval), we need to look at the lateral shifts in the location of urban centres that were taking place. While in the early historic period, Indor Khera was the urban centre for this micro-region, in the early medieval period, it was Ahar. Chattopadhyaya (1994b) in response to the issue of urban decay has noted the emergence of several urban centres in early medieval north India, such as Prthudaka (Pehoa) in Karnal district, Siyadoni in Jhansi district and Gopagiri (Gwalior). However, what have so far not been worked out are the lateral shifts taking place at the micro level, over a period of time. Apart from location, the nature of urban centres would have also varied. For example, what little we already know, from the archaeological and inscriptive evidence, suggests that Indor Khera and Ahar were very different kinds of urban centres. The urban experience too at these urban centres would have been distinct. It is only when archaeological studies involving intensive and extensive surveys as well as focussed excavations in a micro-region are undertaken will we move towards a better understanding of early urban histories.

10.6 SUMMARY

The first wave of urbanisation disappeared around 1900 BCE which resurfaced after a gap of 1400 years in the Ganga valley around 500 BCE. In the present Unit Early Historic urban centres have been studied through archaeological data. How Early Historic cities were represented in the texts would form part of the discussion of Unit 13. However, very limited archaeological excavations have been carried out so far to help
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us better understand the growth of Early Historic urban centres. Historians have linked the emergence of Early Historic urban centres to iron technology. However, archaeologists have questioned the possible role of iron in the emergence of urban centres. Whatever the reasons, this period saw the emergence of numerous urban centres, some as large as Pataliputra (1200 hectares) to smaller towns like Bhita (19 hectares) and Indor Khera (12 hectares). While the cities were largely fortified, settlements in many cases extended outside the fortified walls too. Some cities like Sirkap and Shaikhan Dheri show elements of planning, which suggest the role of political authority in the emergence of these particular urban settlements. Interestingly, craft production appears to have been organised within houses at several urban centres. While some of the Early Historic cities were centres of power, others were located along trade routes.

10.7 EXERCISES

1) What are settlement pattern studies? Discuss surveys and excavations undertaken with regard to Early Historic urban centres.

2) What was the basis of Erdosy’s survey? What methodology was adopted by him to analyse the Early Historic urban centres in the Ganga valley? What were his findings?

3) What were the factors responsible for the emergence of cities and towns in north India around 500 BCE?

4) What role did iron technology play in the formation of Early Historic cities in the Ganga valley?

5) How have archaeologists characterised Early Historic urban centres in north India?

6) Discuss the chief characteristics of Early Historic urban centres between 500 BCE to 500 CE in the Ganga valley.

7) Examine the spaces outside the urban centres of the Early Historic period.

8) Was there an element of planning in the Early Historic urban centres of the Ganga valley?

9) Examine the housing patterns of Early Historic urban centres in the Ganga valley.

10) The spatial pattern delineated for separate crafts in the Arthaśāstra does not show up archaeologically at the Early Historic urban centres. Comment.

10.8 REFERENCES


