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BLOCK 2 THE EARLIEST CITIES IN THE SUBCONTINENT

Let us begin with a few points of clarification. One, as you go through Blocks and Units corresponding to the early period of Indian history, you will find terms like first urbanisation and second urbanisation being used frequently. These are to be understood as terms which archaeologists and historians use for their own convenience to separate one phase of urbanisation from another phase. Sometimes, the term third urbanisation is also used to argue the existence of another phase of urbanisation in early medieval period. It is therefore necessary to keep it in mind that these are simple terms of convenience; these were not terms which Harappans themselves or those who came much after them used. It is also necessary to know that a considerable amount of confusion has been unnecessarily created, not all on academic grounds, what the earliest, Bronze Age civilisation and its urbanism should be called. Most academics would call it Harappan civilisation and Harappan urbanism because following a convention among archaeologists to name a civilisation by the name of the site in which the civilisation was first noticed, the site is Harappa, the type-site of the civilisation. Equally valid would be the term Indus Valley Civilisation because, although geographically it was spread over a very wide area; the major distribution area of the sites corresponded not simply to both banks of the Indus river, but to the Indus system, similar to the way the civilisation and urbanism of a later phase corresponded to what is called the Ganges system.

Another point necessary to remember is that the entire chronological span of what is known as Harappan culture was not urban. Some elements of the culture which were characteristically Harappan are found at a number of sites, and archaeologists use the term 'early Harappan' for them. It was the mature phase (circa 2600 BCE-1900 BCE) which was certainly urban, as can be seen in the various new features which appeared in this phase of the civilisation: the vast size of many sites as well as the varied nature of their different parts; appearance of different types of sites; their architecture and planning; the variety of artisanal products; the obvious presence of some form of political authority, presence of a certain variety of script; indication of the presences of hierarchy among different social groups, etc. You would be reading about the details of these features in the Units that follow.

However, these distinct features of Harappan urbanity did not continue beyond circa nineteenth century BCE, though Harappan culture and features did not suddenly die out. Archaeologists have suggested that this post-urban phase which lingered on till about fourteenth-thirteenth century BCE may be termed Late Harappan.

What led to the emergence of Harappan culture, particularly Harappan urban culture, and what led to its gradual decline continue to remain academic problems which are among many others concerning Harappan urbanism. It is understandable why scholars keep on debating the many issues, which archaeologists, anthropologists and historians have raised. Many of the arguments advanced are academically reasonable; others are not. In any case, it is necessary to be aware of these arguments and to learn how to weigh between them.



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UNIT 5 AN INTRODUCTION TO EARLY URBANISM*

Structure

- 5.1 Introduction
- 5.2 Characteristics of Early Urbanism
- 5.3 Urban Origins
- 5.4 'Urban' and 'Rural' as Categories
- 5.5 The End of the Harappan Cities
- 5.6 Summary
- 5.7 Exercises

5.1 INTRODUCTION

The earliest cities in the Indian subcontinent were those of the Bronze Age, going back to the third millennium BCE. This phase of civilisation is also called as the 'Harappan culture' or 'Mature Harappan culture'. The Bronze Age itself is a term used to refer to communities utilizing bronze for their major tools but more importantly imply urban societies. The term is also used in a sense different from chalcolithic societies, which essentially meant village farming societies. Several early Bronze Age societies in the Old World are known, which include Mesopotamia, Egypt and China, other than the Harappan. Slightly younger contemporaries of the Mesopotamian cities, the Harappan settlements were distinctly urban, aspects of which we shall discuss in this Unit. But before that, we also need to understand what we mean by the terms 'urban', 'urbanism' and 'urbanisation'. The term 'urban' is used in the context of a city and connotes a condition which contrasted with that of 'rural'. An urban condition can be best explicated by V. Gordon Childe's criteria for the early city which he outlined in 1950. These criteria were size of settlement and density of population, occupational specialisation, the presence of surplus in the economy, monumental public buildings, a ruling class, systems of recording and exact sciences, writing, art, "foreign" trade and a state organisation. While these criteria need not be considered as invariant in every urban context, it was the linkages that existed between them, and were first pointed out by Childe that were theoretically seminal. The term 'urbanism' refers to the state of *being* urban, while the term 'urbanisation' refers to the process of *becoming* urban.

5.2 CHARACTERISTICS OF EARLY URBANISM

A dense population that was achieved primarily by population nucleation¹ generally marks an urban settlement. The tendency for population to come together or nucleate can be interpreted in various ways. This could be due to the need for defence or due to environmental reasons such as availability of resources or for proximity to a ritual centre. Shereen Ratnagar (1991: 23) emphasised that nucleation occurred '...not in order to make food production more efficient, but because of an engagement in non-subsistence activities such as crafts or trade, administration or ritual services.'

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¹ Literally, nucleation means to 'bring together into a nucleus' (centre). In the context of population, it means that people come to live together in a defined space.

Thus, an important factor resulting in population nucleation can be explained by the economies of scale² that become possible in urban conglomerations. The advantages of population nucleation are marked. A dense population implies a large consuming population and increased demand. Thus, for crafters such as potters, it makes economic sense to live and work in a city where they can specialise in potting and obtain a livelihood solely from that craft. It would be similar for those who worked at trading for a living, or even at construction.

Normally we find that activities requiring heavy expenditures of time, labour and bulky inputs find it profitable to be located close to inputs or resources such as raw materials, fuel or land. This is obvious in most spheres of economic activity, as for example, in agriculture. The more intensively utilized land (such as for food crops) was that nearest the settlement while land further away was allowed to lie unused or was reserved for grazing or for collection of forest products. In the case of non-agricultural activities too, the areas close to bulky inputs (such as metal ore) were favoured for location of production, so as to reduce costs. Other factors such as geographical barriers or fragility of products may also impact on location of production. Yet at the same time, historically, we know that there were other considerations more important than costs, that materials were transported over distances, indicating the working of other significant factors.

The above patterning of land use has its own implications. While small, dispersed settlements can rely on agriculture, large, densely populated settlements would be another matter. A dense compact population ensures an increased availability of labour due to the ensuing pressure on land in an urban society. Unlike in dispersed settlements where the more the number of hands available the more that can be cultivated, in an urban society with increasing pressure on limited land resources the amount of labour that can be put into the same portion of land is limited and ultimately leads to decreased productivity. This available labour can theoretically be used to set up temporary settlements near distant fields during agricultural peak seasons but much more importantly can be diverted to other tasks that hitherto had been undertaken on a part-time basis. Hence, those who could not farm had to undertake other activities, be it craft production or ritual activities, or the performance of municipal functions or trading. Thus, the city, where only a limited proportion of its population could work at agriculture, is in fact known for these latter kinds of activities, which are often called secondary occupations.

For such a state of division of labour to arise, the support of non-food producers was essential, as it is precisely that sector of the population that is not producing its own food that needs support. This support is interestingly viable only with a surplus of agricultural production. The reason for this is because we are dealing with a period where there is no money and hence no wage labour. The term surplus is often understood in the sense of output over and above the minimum required for subsistence. Pearson (1958: 323) considered that the term 'surplus' should be used in a relative sense in that 'a given quantity of goods and services would be surplus only if the society in some manner set these quantities aside and declared them to be available for a specific purpose.' It was also realized that implicit in the concept of surplus was the necessity for a social centre that was responsible for mobilising it. Thus, Orans (1966: 31) found that 'it is...not unthinkable that the very first extra production per food producer which went to a full-time non-food producing specialist went via an hierarchical authority.'

Historically, the earliest specialists may have been religious functionaries. In fact, the role of the temple in Bronze Age Mesopotamian society may have led to early ideas of religion as a prime mover in the context of urbanism. However, most discussions of

² In Economics, the term implies that per unit cost of production depends upon the quantity produced; the greater the quantity produced, the lower would be the cost of production.

specialisation have tended to focus on the economic sphere. In some cases economic specialisation might have been necessitated by environmental factors. Communities located in resource-rich zones may have been impelled to marginalize agriculture and look for other alternatives. For this to occur, however, the need for specialised goods must be available.

Population nucleation would impact on social relations too. In less complex pre-urban societies kinship played a predominant role while in urban societies the logic of nucleation, involving the settling together of populations, at least some of which were unrelated by kinship, implied relations between diverse social groups. Wirth (1964: 71) has noted that superficiality, anonymity and a transitory character epitomize social relations in a city. The sense of belonging in a city came more from the fact that one resided there, rather than from kinship, or of belonging to a particular group or community. In fact, heterogeneity of population enabled the mobilisation of surplus. As Orans (1966: 30) wrote, it would be 'easier to establish and maintain wide differences in prestige and privilege in a large society than in a small one where all relationships tend to be based on kinship and/or face to face.'

At the same time, this is not to say that kinship did not impact on social relations within a city. Robert Adams (1966) when discussing the early Mesopotamian society has delineated the role of lineage groupings in landholding, craft production and other occupations that the texts show were clearly grouped into lineage and clan modes of organisation. In fact, much of the public work undertaken in Egypt, such as the construction of pyramids, was done through the mobilisation of communities or kinship groups to work on state projects for short periods. Yet, lineage groups seem to have lost much of their autonomy in the heterogeneous background of the city and were perhaps no longer liable only to themselves but to a higher extra-kin authority.

Some scholars consider that despite the obvious presence of heterogeneity persons of similar status and kin relations might have settled in discrete clusters within early cities. For this, archaeologists like Jonathan Kenoyer took as a model or template the idealized representation of the later early historic city in the Indian subcontinent, where 'castes' lived segregated in separate areas (Kenoyer, 1997: 68-69). To some extent, this suggestion may have been due to the spatial segregation of the Citadel area as distinct from the Lower Town section in some of the major Harappan cities like Mohenjodaro and Harappa. The segregation was seen to embody a separation of the elite from the other sections of the population, in other words, of incipient classes. However, we will show later that analyses of the plan of structures at Mohenjodaro do not indicate large complex structures as limited to the Citadel mound, but these were also found in the Lower Town area too. Also, there is very little evidence of continuity of craft production over generations suggesting occupational heredity, which is an intrinsic feature of the caste system.

5.3 URBAN ORIGINS

The question that has often arisen is of urban origins in the Greater Indus Valley. Some archaeologists like to take the discussion back to Mehrgarh in the Kachi Plain, a Neolithic-Chalcolithic settlement at the foot of the Bolan Pass. Located in one of the fertile plains in the Kirthar Ranges, Mehrgarh was occupied right from 7000 BCE up till about 2600 BCE but not including a Harappan occupation. While Mehrgarh was located in a hilly region, the earliest settlements in the Indus plain were those that preceded the Harappan cities. Archaeologists have long known of these settlements or occupations that were earlier to the Harappan cities that have been variously called Early Harappan, pre-Harappan or Early Indus, dated from about 3500-2600 BCE. Archaeologists call

these groupings as ‘cultures’³, envisaged in terms of their material culture. In the Greater Indus Valley, prior to the Harappan, there were four such cultures, called as Amri/Nal, Kot Diji, Sothi/Siswal and Damb Sadaat (see **Figure 5.1**). These differ from each other primarily in terms of geographical loci and materially in terms of pottery. Most of the distinctive features of the Harappan civilisation, such as weights, seals, certain unique metal tools as well as carnelian and steatite bead types, a particular ratio for making bricks, distinctive shapes of pottery containers and the black painted designs on them, and so forth were entirely absent. Not only this, monumental architecture, a feature of urban spaces, is not a feature of Early Harappan settlements. These also seem to be more local societies with locally available materials being utilized. What was, however, common between the Early and Mature Harappan was the basic subsistence base (of wheat, barley, sesamum, linseed, dates, sheep, goat and cattle), the use of brick for construction, the cart for transportation, the use of terracotta cakes and terracotta and stone missiles and a few designs on pottery. These few similarities make the use of the terms ‘Early Harappan’ or ‘Early Indus’ more suitable than ‘pre-Harappan’ that would imply a completely different material culture.

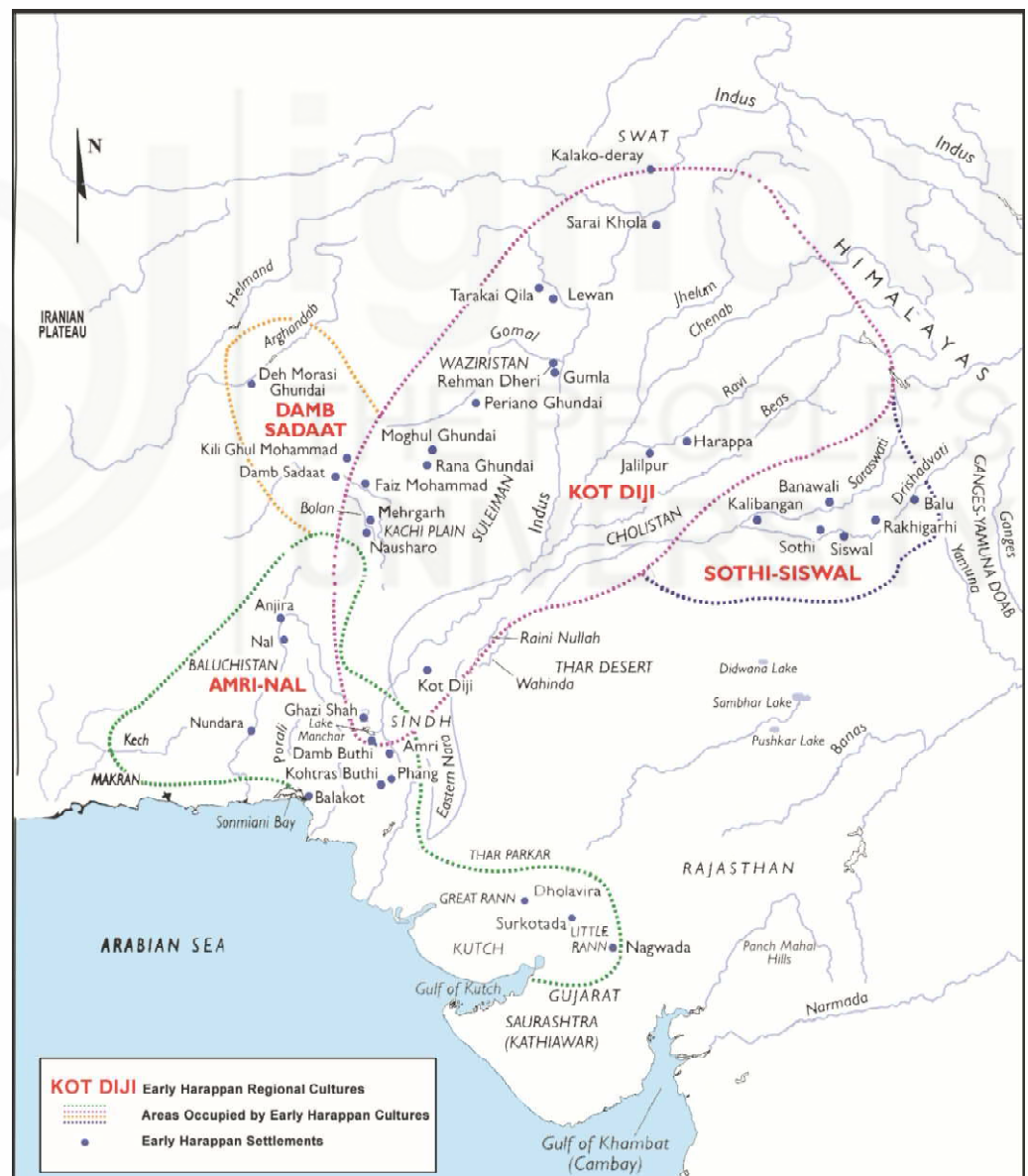


Figure 5.1 : Early Harappan Cultures (After McIntosh, Jane R., (2008) *The Ancient Indus Valley: New Perspectives*, Santa Barbara : ABC-CLIO, Map 1.)

³ For difference in ‘cultures’ and ‘civilisation’ see Course MHI-05, Block 2, Unit 6, Section 6.7 ‘Keywords’.

Despite the different terminology, some archaeologists have considered that there was a long gradual process of urbanism, covering a millennium from the middle of the fourth millennium BCE. In fact, a long development was propagated by Rafique Mughal as 'cultural processes involving social stratification, complexities of architecture, inter-regional contacts and communication, craft-related activities and availability of economic surplus appear to have begun or emerged, even earlier, perhaps by the fifth millennium B.C.' (Mughal 1990: 187) This, for Mughal, constitutes his first phase of development while the Early Harappan period comprises his second phase. He attributed this continuity to similarities in artefacts earlier thought to be solely diagnostic of the Mature Harappan, such as terracotta toy-cart frames and wheels, terracotta cakes, cones and pottery objects like offering stands as well as certain painted designs on pottery, that as pointed out earlier were seen to occur from the Early Harappan levels. To investigate continuities or discontinuities, Mughal hence concentrated on the presence of certain artefact-types to delineate an organic link between the Early Harappan and Mature Harappan cultures.

How do we theoretically understand urban origins? Urbanism can be interpreted in terms of a slow organic growth, where small villages eventually due to population nucleation (or people gravitating towards a centre) grew into cities. This has been termed as the ramp approach to urbanism. On the other hand, one can also conceive of a rapid state of urbanisation, where a settlement may very quickly grow into a city, termed as the step approach to urbanism.

In ancient Mesopotamia, it was the northern part of the alluvial plain of the Euphrates river that saw a population expansion around the beginning of the fourth millennium BCE. Before this date the area was hardly populated and it seems that there was either a massive influx of immigrants into the region or the settling down of erstwhile mobile populations (such as of pastoralists) or both. Gradually, by the end of the fourth millennium, large-scale population shifts took place into the southern part of the Euphrates alluvium, which became the focus of several urban centres. Among these urban centres in the south, Uruk gradually acquired a premier position growing explosively in size to 400 hectares by the beginning of the Early Dynastic period or 3000 BCE. Ancient cities like Ur and Uruk, however, show organic growth in the form of physically expanding settlements and burgeoning populations.

How do we understand Harappan urbanism? Archaeologically, this can be ascertained by studying the kinds of societies encapsulated by what we have called 'Early Harappan' and 'Mature Harappan', as well as the links between them. We have already seen earlier the absence of urban features like monumental architecture, or infrastructural elements like weights and seals. However, there has been a general tendency among archaeologists to concentrate on the continuities between the two occupations, but it may be more useful to take note of the disjunctures. There is evidence of burnt layers between the Early and Mature Harappan periods at sites such as Kot Diji that suggest a violent changeover in society. Moreover, changes in settlement histories in many cases also mark the shift to the Mature Harappan. For example, out of a total of 52 Early Harappan sites in Sind, 29 were abandoned. The picture is far starker in the case of the Cholistan where out of 37 Early Harappan sites, as many as 33 were abandoned. Similarly, in the Cholistan again, out of 136 Mature Harappan sites, 132 were set up in new locations. Recent surveys in the Upper Indus region by Rita Wright (2010: 128) have also shown that all the seven pre-urban settlements along the Chenab and four out of nine along the Ravi River were abandoned in the Mature Harappan period. There thus seems to be a preference for new locations in the Mature Harappan period, or a rejection of the older settlements. The transition should not be seen as the replacement of Early Harappan by the Mature Harappan. At the same time, no single Early Harappan

culture can be seen as the progenitor of the Mature Harappan. Moreover, the Early and Mature Harappan did co-exist, as can be seen at Rahman Dheri in the northern Punjab, where from 2500 to 1900 BCE, the material culture remained Kot Dijian. If we put these disjunctures between the Early and Mature Harappan together with the absence of elements indicative of urbanism, we would have to suggest a rapid onset of urban growth in the Indus Valley.

This sudden onset of urbanism can be seen through other features. Settlements such as Mohenjodaro show a high level of planning in their layout, with roads and streets, a drainage system and construction on mudbrick platforms. This is completely unlike the case with Mesopotamian cities that seem to have expanded outwards from the centre. At Kalibangan in Rajasthan, a new settlement with a typical Harappan pattern of a division into two units lay over an earlier (Early Harappan) settlement with a different pattern. The settlement of Lothal was set up with an entirely new and planned layout over an earlier chalcolithic village.

5.4 'URBAN' AND 'RURAL' AS CATEGORIES

The category of 'urban' is clearly a broad one, which should include several kinds of settlements. After all, even in modern contexts, we can distinguish between city and town. For earlier periods, written sources sometimes indicate several categories of urban centres. In ancient India, for example, an urban centre was variously termed as '*nagara*', '*pura*', '*durga*' and so forth. In Bronze Age Egypt, too, there were several terms for urban centres that can be gleaned from the written sources. But it is difficult in the Harappan case in the absence of written information to be able to differentiate different types of urban centres. Hence, we have to rely on the archaeological evidence alone.

The problem then arises of assuming hierarchies or gradations among urban settlements solely on the basis of size, which is often done by archaeologists when they survey a region and document ancient sites. However, as pointed out at the beginning, size is not the only criterion for determining the urban character of a site. Density of population and the concomitant specialisation of tasks are more useful. Thus, even a settlement small in size could qualify as urban or semi-urban, if it had varying functions and its population was diverse in structure and tasks. In the Harappan case, even comparatively small settlements, such as Chanhudaro or Lothal, may have fulfilled particular defined purposes and seem to have been deliberately established for those purposes. But once we have established the predominance of non-agricultural occupations at a settlement, then we could use size to differentiate cities from towns, such as Mohenjodaro and Chanhudaro. However, we still may not know how many tiers of urban centres may have existed.

It is not just differences between urban settlements that are difficult to discern. While modern distinctions between urban and rural are very sharp these have been considered problematic for cases in the past. This is particularly so for early rural settlements that may archaeologically present an urban picture. That this was not limited only to very early societies is seen by medieval rural settlements in the Middle East that very often had marked urban features. Often, archaeologists go by site sizes to make claims that 'large' meant 'urban' and 'small' implied 'rural', which can be deceptive. This can be seen from the example of Rangpur, which was large in spatial extent but whose archaeological assemblage or supposed functions hardly qualify it to be urban. We can understand sites such as Rangpur by what is called as 'lateral stratigraphy', where the entire area now seen as an archaeological site may not all have been occupied at the

same time. Instead, the population may have shifted spatially over time giving the false impression of a much larger settlement.

Small settlements may also have isolated examples of complex architecture making urban-rural differentiation somewhat tricky. At Balakot in southern Sind, for example, excavated by George Dales, a floor, still surviving, of baked square tiles impressed with the intersecting circle design may indicate ‘an elaborate, perhaps monumental building’. (Dales, 1979: 260) While no walls are presently left standing, another well-paved floor was found in an adjoining area, plastered with white lime in which there was a circular depression with charred remains of a wooden column. Further, small rooms were found nearby with very large storage jars, all this in the eastern sector of the High Mound. In the same context, we can point out that more than any other settlement, Kalibangan most resembled Mohenjodaro, but the two vastly differed in terms of size.

One of the reasons why we have not a very clear picture of villages is because archaeologists generally tend to concentrate on, and excavate, what they judge to be urban centres. This is because of a fascination for the complexity of an urban centre and the urge to recover larger quantities of artefacts than would be available at a rural settlement.

5.5 THE END OF THE HARAPPAN CITIES

The Mature Harappan period or the period of urbanism lasted for roughly 700 years. Those 700 years would have seen periods of intermittent upheaval as suggested by the periodic floods that ravaged Mohenjodaro. After 1900 BCE, however, most of the major cities of the Harappan civilisation were abandoned or were clearly in stress. Just like the origins of Harappan cities, the reasons for their end too have been debated. However, here we are primarily concerned with developments in the Greater Indus Valley after the Mature Harappan period. It is not as if the area was completely depopulated or abandoned; in fact, after 1900 BCE, we find settlements with a material culture different from the Mature Harappan but with some continuities in ceramic forms, terracotta cakes and the use of faience to make ornaments. There seems to be a sort of reversal to the situation before the advent of the Harappan cities, with settlements, now mainly villages, having regional affiliations. Most important is that the majority of features that marked Harappan urbanism (such as writing or the use of weights and seals, or adherence to planning in the cities, or to a rich and vibrant material culture) seem to have disappeared. At the large centres, like Mohenjodaro, the collapse of municipal functions and rules can be seen in houses and kilns intruding onto the streets and being built in public spaces.

Four still little studied so-called Late Harappan cultures are now apparent: the Jhukar in southern Sind, Cemetery H in the Cholistan and the southern Punjab, late Siswal in the Sutlej-Yamuna Divide and Rangpur IIB-C in Gujarat and Kathiawar, roughly dated from around 1900 – 1500 BCE (**Figure 5.2**). The Jhukar is marked by seals in a round shape, pottery head-rests, buff coloured pottery and an apparent re-occupation of Mature Harappan houses. The Cemetery H pottery is a well-made pottery with complex naturalistic designs (realistically depicted birds, animals, leaves and flowers), which is primarily found in burial contexts. The late Siswal shows a clear reversal to the Sothi/Siswal before the Mature Harappan. The Rangpur IIB-C sites in Gujarat and Kathiawar show a remarkable increase in number but with drastic reduction in sizes which has been understood as reflecting changes in subsistence strategies with a greater reliance on pastoralism as opposed to agriculture.

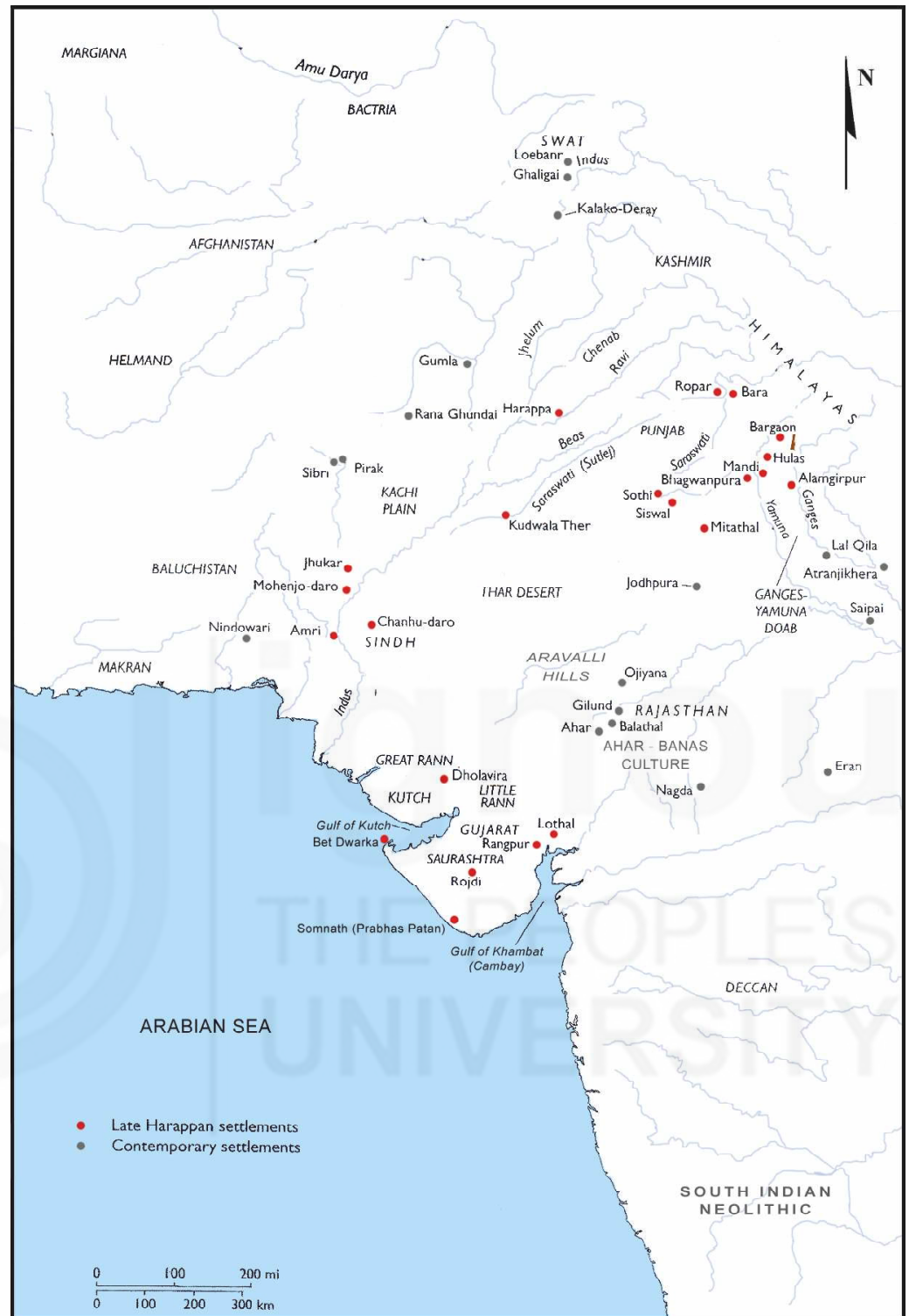


Figure 5.2 : Late Harappan Settlements and Cultures (After McIntosh, Jane R., (2008) *The Ancient Indus Valley: New Perspectives*, Santa Barbara : ABC-CLIO, Map 4.)

There seems to have been a movement of population towards the east and southeast in the period after 1900 BCE. This has also long been considered as a period that lay between two urban axes, what have been earlier recognized as the first and second urbanisations. Recently, archaeologists such as J.G. Shaffer have tried to suggest that there was no interregnum or gap in urbanism, that cities continued to exist even after 1900 BCE and that the first and second urbanisations were not separate phenomena but represented a continuous history of urbanism in the subcontinent. This he suggested on the basis of surveys in the eastern Punjab that revealed evidence of spatially large settlements. He preferred to call this tradition as the 'Indo-Gangetic Cultural Tradition'. (Shaffer, 1993: 59) However, until excavations are undertaken at these seemingly large

sites, it is problematic to suggest urbanism solely on the basis of size, or to accept the theory of continuity.

Thus, what is useful to learn is that urbanism can end too. The dynamism of the past ensured that what were centres and peripheries at a certain stage could change over time. While the Punjab and Sind appeared to be the centre and Gujarat and the Ganga-Yamuna doab as peripheries in the Mature Harappan period, the peripheries were eventually to become the focus of settlement in the Late Harappan period.

5.6 SUMMARY

While there may be various criteria to delineate an urban situation, we have preferred to focus on activities not primarily concerned with food production but with non-subsistence. This is not to imply that non-subsistence activities such as trade or craft production were not performed earlier in non-urban contexts, but that the focus varies in an urban situation. Changes must be seen qualitatively rather than only quantitatively. Moreover, the evidence for change is noted through various features such as shifts in habitation areas. Out of 132 Early Harappan sites for which there is data, only 21% (28 sites) continue at the same site in the Mature Harappan period. Also, only about 21% of 130 Mature Harappan settlements continued at the same Early Harappan locus. The relocations of population, accompanied by changes in material culture, must imply a considerable re-organisation of society, economy and probably polity.

5.7 EXERCISES

- 1) What do you understand by 'urban' 'urbanism' and 'urbanisation'? Discuss the characteristics of early urbanism.
- 2) In what ways did the early Harappan 'cultures' differ from the Harappan 'civilisation'? Do you agree with Rafique Mughal's view that there may have been a long gradual process of urbanism?
- 3) What are the ways in which historians and archaeologists define and differentiate between a 'rural' and an 'urban' settlement? Explain in the context of Harappa.
- 4) Study Figures 5.1, 5.2 and 6.1. Write an essay on the picture that emerges over time from these maps.
- 5) Do you agree J.G. Shaffer's view that there was no 'interregnum' between the first and the second urbanisms?

UNIT 6 DISTRIBUTION AND MORPHOLOGY OF HARAPPAN SETTLEMENTS*

Structure

- 6.1 Introduction
- 6.2 Distribution of Harappan Settlements
- 6.3 Morphology of Harappan Cities
 - 6.3.1 Walls, Spaces and Platforms
 - 6.3.2 The Issue of Planning
 - 6.3.3 The Use of Space: Non-Domestic
 - 6.3.4 The Use of Space: Domestic
- 6.4 Summary
- 6.5 Exercises

6.1 INTRODUCTION

In this Unit, we will first plot the Harappan settlements on a map and try and understand the pattern of their location. We will also attempt to see the physical characteristics of urbanism, in other words, how urbanism may have been reflected in the archaeological record. Physically, criteria such as size of settlements or presence of monumental structures are often projected as urban features with implications of population growth and the organisation of labour. We have also assumed that density of population was more significant as compared to size of settlement.

6.2 DISTRIBUTION OF HARAPPAN SETTLEMENTS

Harappan settlements are distributed over the northwestern part of the Indian subcontinent (**Figure 6.1**). The majority of settlements are concentrated in the river valleys of the Indus and its tributaries in the Punjab, as well as in the Sutlej-Yamuna Divide. A large number of settlements are distributed along the stretch of the now dry Ghaggar/Hakra river. The southern extensions of the civilisation are in the Kutch and Saurashtra parts of the modern state of Gujarat. As the Indus Valley was the centre, the need for large stretches of cultivable land could be fulfilled but several required raw materials were just not available in an alluvial zone. Thus, a few settlements lie in outlying areas and were specifically located for procuring required raw materials or for exchange purposes. In the north, Ropar in Punjab was located near the foothills perhaps for obtaining materials such as Himalayan timber. Shortughai, in northeastern Afghanistan, is another isolated settlement located far from any other. Its location seems to have been specifically to obtain the locally available semi-precious stone, lapis lazuli. In the Pakistani Makran, the location of two settlements, Sutkagendor and Sotka Koh seems to have been dictated by the need for water and food supplies by boats plying the sea route along the Makran coast. There seems no other reason why settlements would have been located in such inhospitable stretches of land. Similarly, settlements in Kutch have been considered as located in a frontier region as most of them are fortified.

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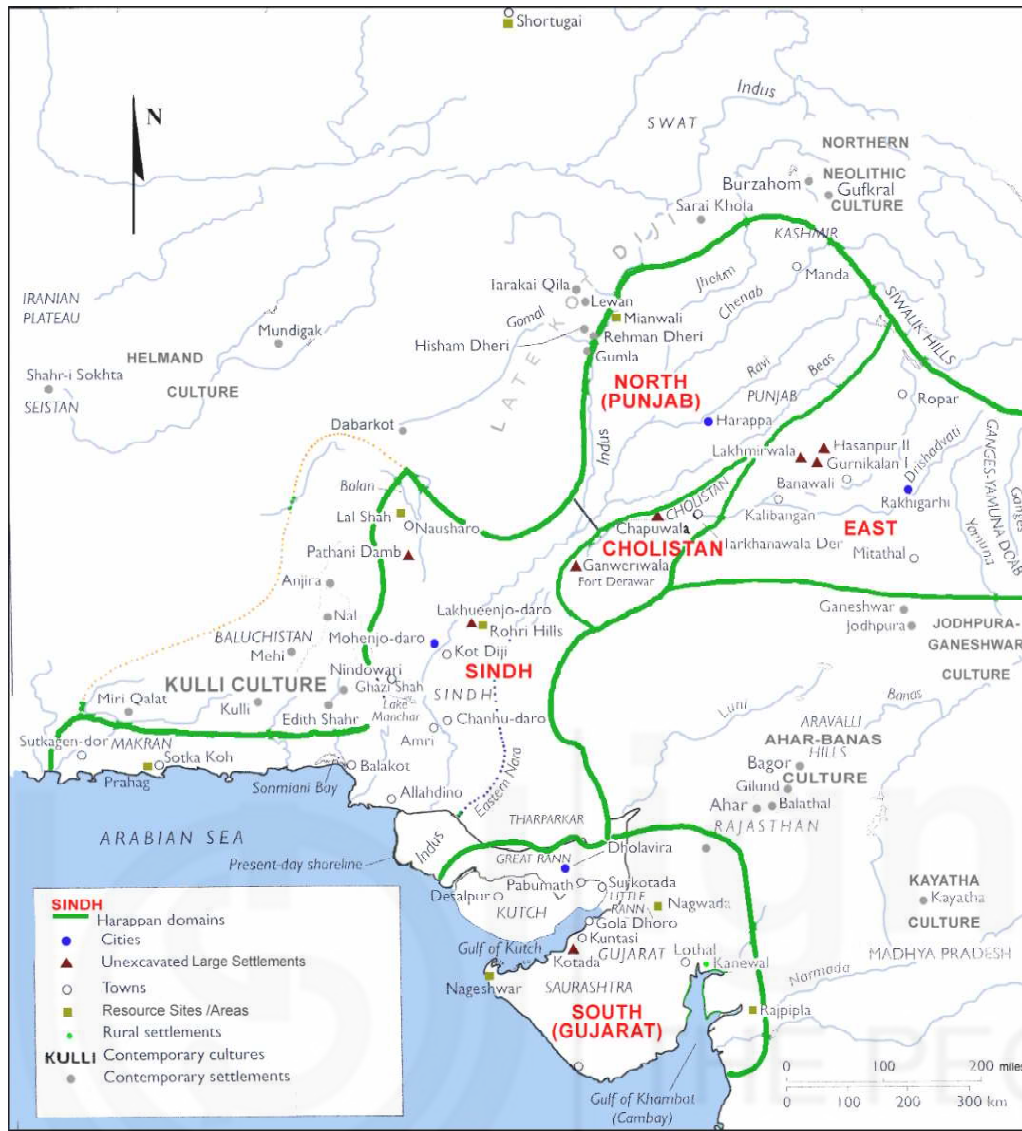


Figure 6.1 : Mature Harappan Settlements and Contemporary Cultures (After McIntosh, Jane R., (2008) *The Ancient Indus Valley: New Perspectives*, Santa Barbara : ABC-CLIO, Map 2.)

Certain areas within this broad sub-tropical semi-arid tract were more favoured for occupation. Settlements seem to have preferred proximity to rivers obviously for their water needs. Given that, it is interesting that there seem to have been very few settlements in the area around Mohenjodaro. This could be because a settlement as large as Mohenjodaro could only have had much smaller settlements (like villages) nearby. Many of these may have disappeared due to the annual floods and ensuing deposits of silt in the floodplains. We do know that valleys were favoured areas for settlement by the distribution of sites on the Ghaggar/Hakra river. About 174 Mature Harappan sites were located along the Ghaggar/Hakra, seemingly presenting a picture of maximum distribution of Harappan settlements. However, this is primarily because the Ghaggar/Hakra is a river that anciently dried up allowing good preservation of settlement remains.

Archaeologists such as Gregory Possehl (1979) had hypothesized that the scarcity of settlements in the vicinity of Harappa on the Ravi river may have been due to the area being more favoured for animal herding and pastoralism rather than agriculture. But more recent exploration work by Rita Wright has brought to light hitherto unknown settlements in this region. Similarly, Pakistani archaeologists have explored several new Harappan settlements in the hilly areas of Sind (the Sind Kohistan) to the west of the Indus river. Thus, to some extent, the distribution map of Harappan settlements may somewhat change with more exploration, particularly in remote areas. Even so, population

density can be noted through the marked increase in number of settlements in the Mature Harappan period as compared to earlier periods (compare Figure 6.1 with Figure 5.1 in Unit 5).

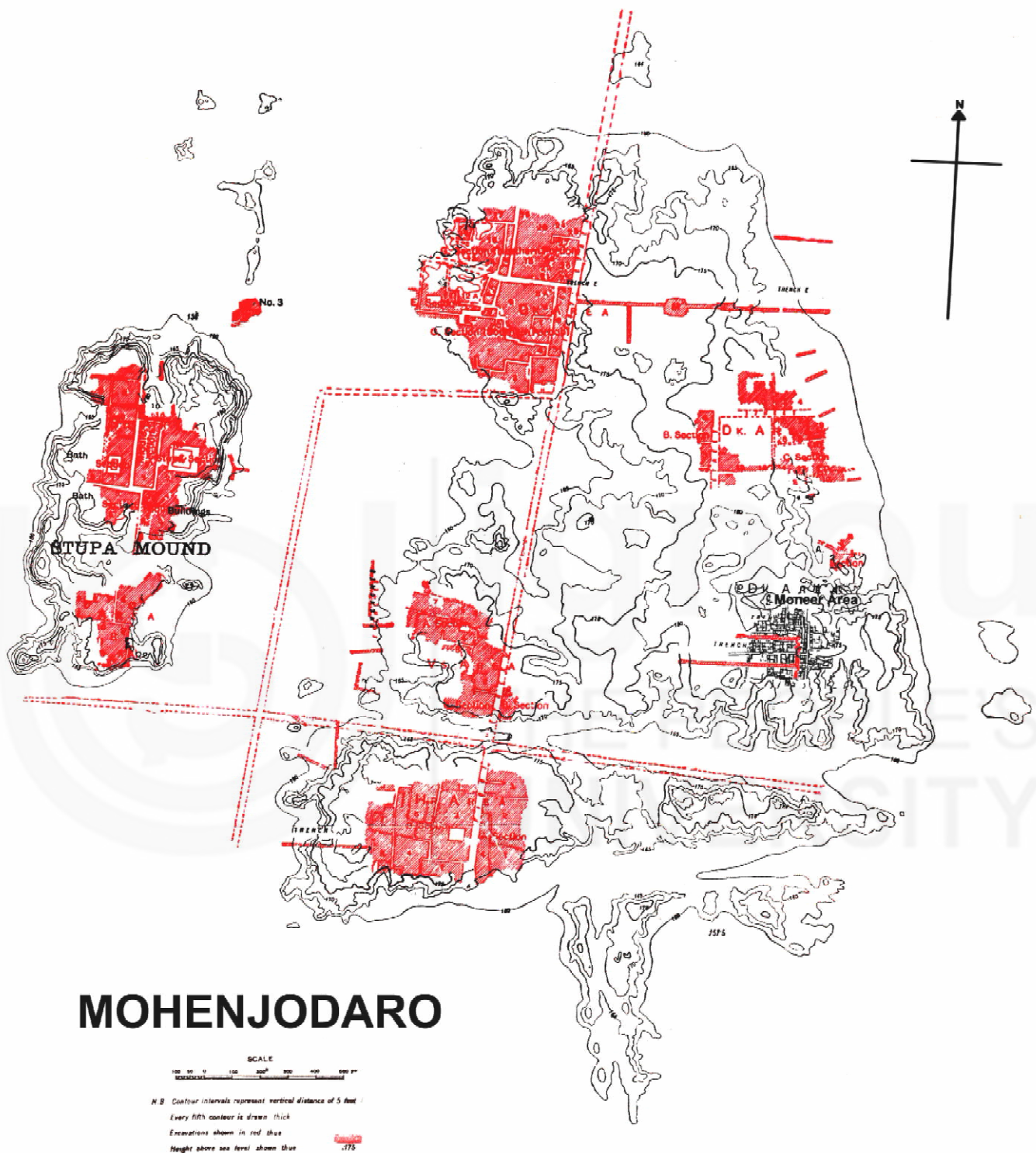


Figure 6.2 : Layout of Mohenjodaro (Mackay, E.J.H. (1937-38) *Further Excavations at Mohenjodaro 1927- 1931*, Vol. II, Delhi: Archaeological Survey of India, Plate I. For Moneer Area, Possehl, Gregory L., (2002) *The Indus Civilisation: A Contemporary Perspective*, Walnut Creek: Altamira Press, p. 100).

Another feature marked the Mature Harappan period from its predecessor, the Early Harappan. This is that roughly the same area occupied by Early Harappan cultures were now under a single archaeological culture. New areas being settled were clearly in the southern region, in Kutch and Saurashtra. As mentioned in the previous Unit 5, many Mature Harappan settlements were in new locations and several Early Harappan ones were abandoned. There are also now numerous large settlements that are 50

hectares and above in size, such as Mohenjodaro, Harappa, Ganweriwala, Judeirjodaro, Rakhigarhi and so forth. Some of these settlements have been excavated revealing that they were in fact highly complex and multi-functional, what we would call urban. This is completely in contrast to the earlier period. Some of this complexity will be explored in the next section, where we will look at the morphology of Harappan settlements, as well as in Units 7 and 8.

6.3 MORPHOLOGY OF HARAPPAN CITIES

The morphology of the Harappan urban centres is marked by internal segregation and planning .

6.3.1 Walls, Spaces and Platforms

One of the most marked morphological features of several Harappan cities seems to be their internal segregation. This could take the form of separately walled units with a gap between them to a single entity internally demarcated by walls. There seems to have been a deliberate attempt to separate either functions or people or both. Mohenjodaro (**Figure 6.2**) provides the clearest evidence of a divided settlement of the former kind. There are distinctly two mounds, one, a smaller (about 8 hectares) and higher one to the west and the other, a larger (about 115 hectares) and less elevated one to the east, both separated by an area of about 150 meters. These were termed as ‘Citadel’ and ‘Lower Town’ respectively.

Kalibangan in Rajasthan (**Figure 6.3**) exhibits a similar morphology with a smaller area on the west demarcated from the larger area to the east.

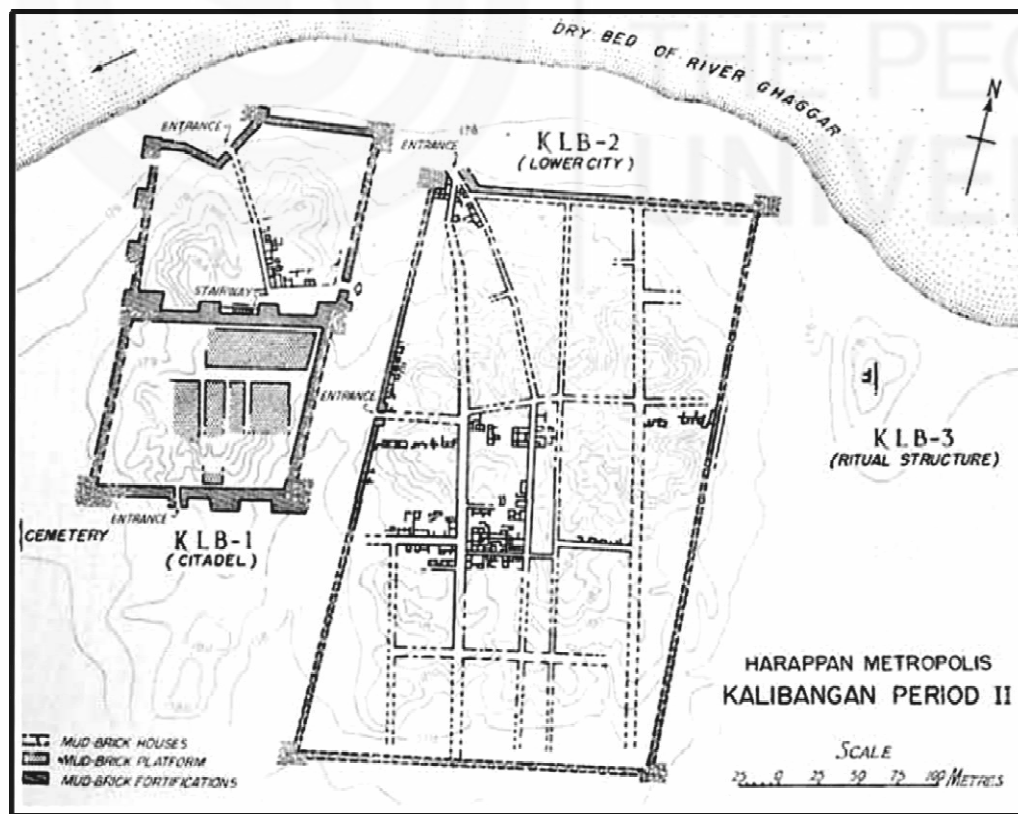


Figure 6.3 : Layout of Kalibangan (After Thapar, B.K., ‘Kalibangan: A Harappan Metropolis Beyond the Indus Valley’, *Expedition*, Vol. 17 (2) Jan.1975, p.19).

Of a division of the latter kind, we have a good example in the city of Surkotada in Kutch (**Figure 6.4**).

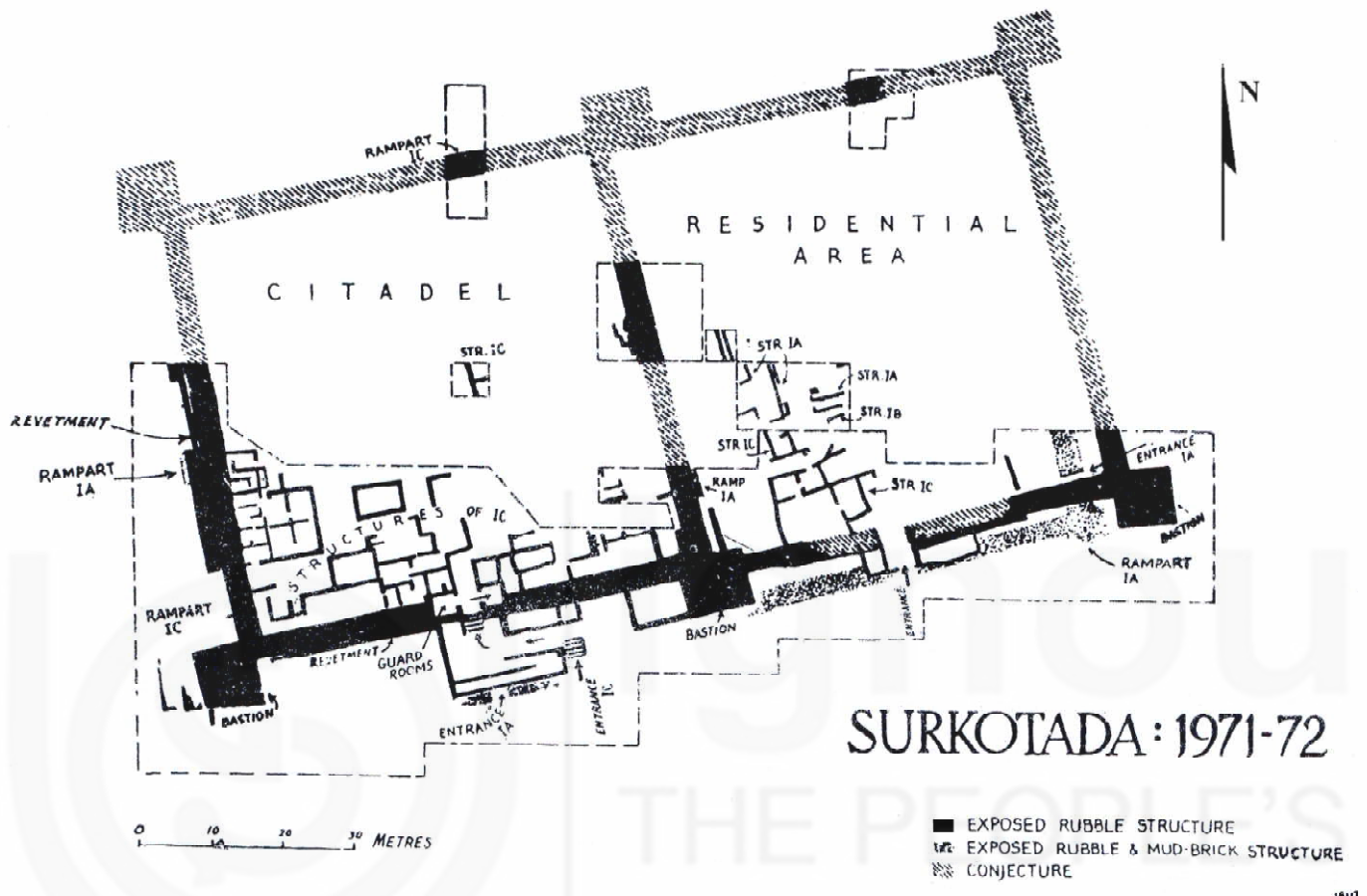


Figure 6.4 : Layout of Surkotada (After Joshi, J.P., *Indian Archaeology 1971-72 – A Review*, New Delhi: Archaeological Survey of India, 1975, Fig. 2, p. 15).

The difference, though, is that the settlement at Surkotada is a rectangle divided by a wall into two equal segments. At Lothal, (**Figure 6.5**), we have a single walled entity within which different areas were spatially demarcated with an elevated area termed as the ‘Acropolis’ and the rest of the settlement the ‘lower town’.

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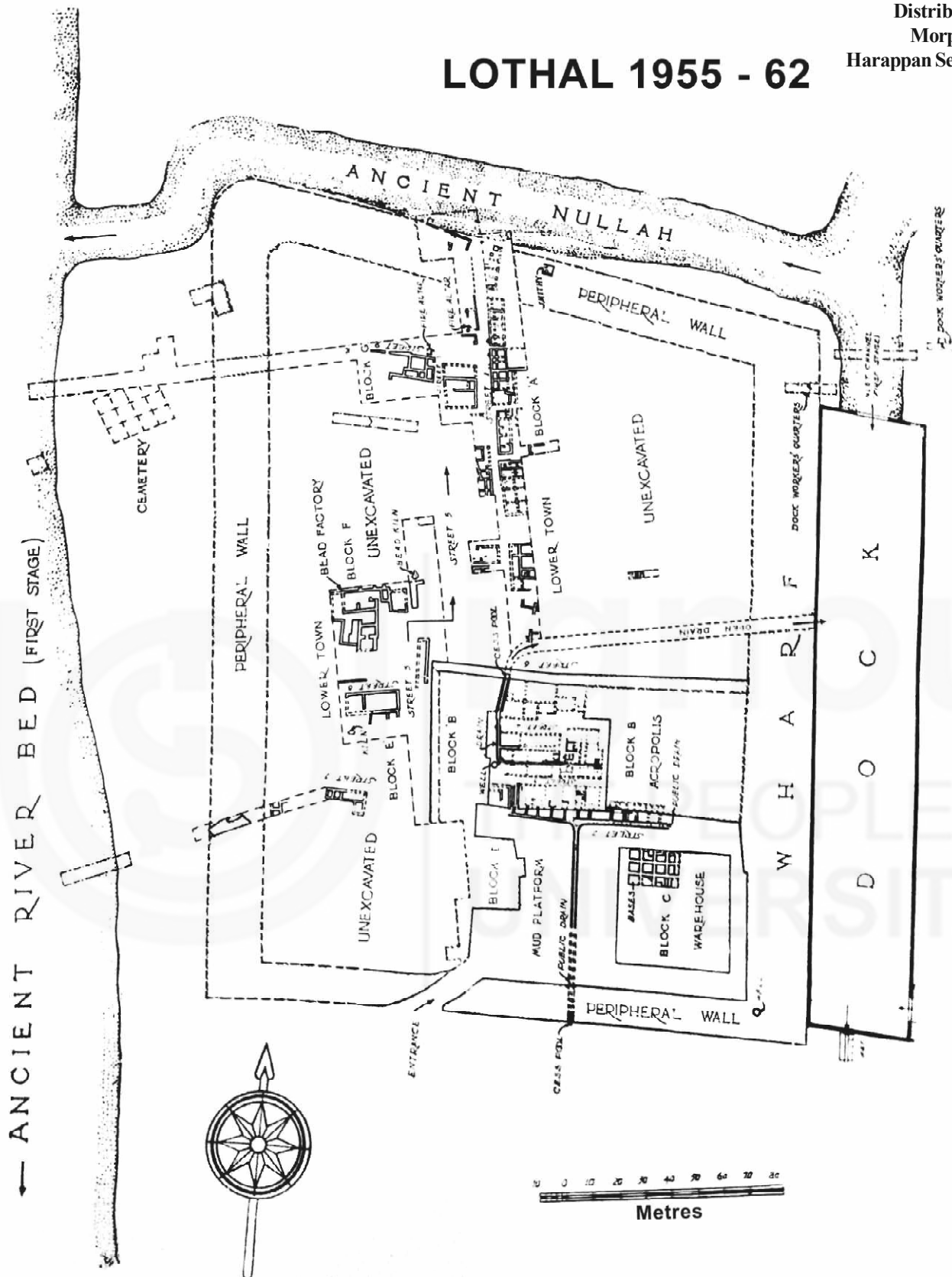


Figure 6.5 : Layout of Lothal (After Rao, S.R., (1979), *Lothal: A Harappan Port Town (1955-62)*, Vol. 1, New Delhi: Archaeological Survey of India, Plate XL).

This pattern of separation can be seen at some smaller, provincial settlements too such as Mitathal in Haryana. While several settlements reveal a division into two areas, Dholavira in Kutch (**Figure 6.6**) shows a different pattern where there are three different segments in the Lower Town and the 'citadel' itself is divided into two, called as the 'castle' and the 'bailey'.

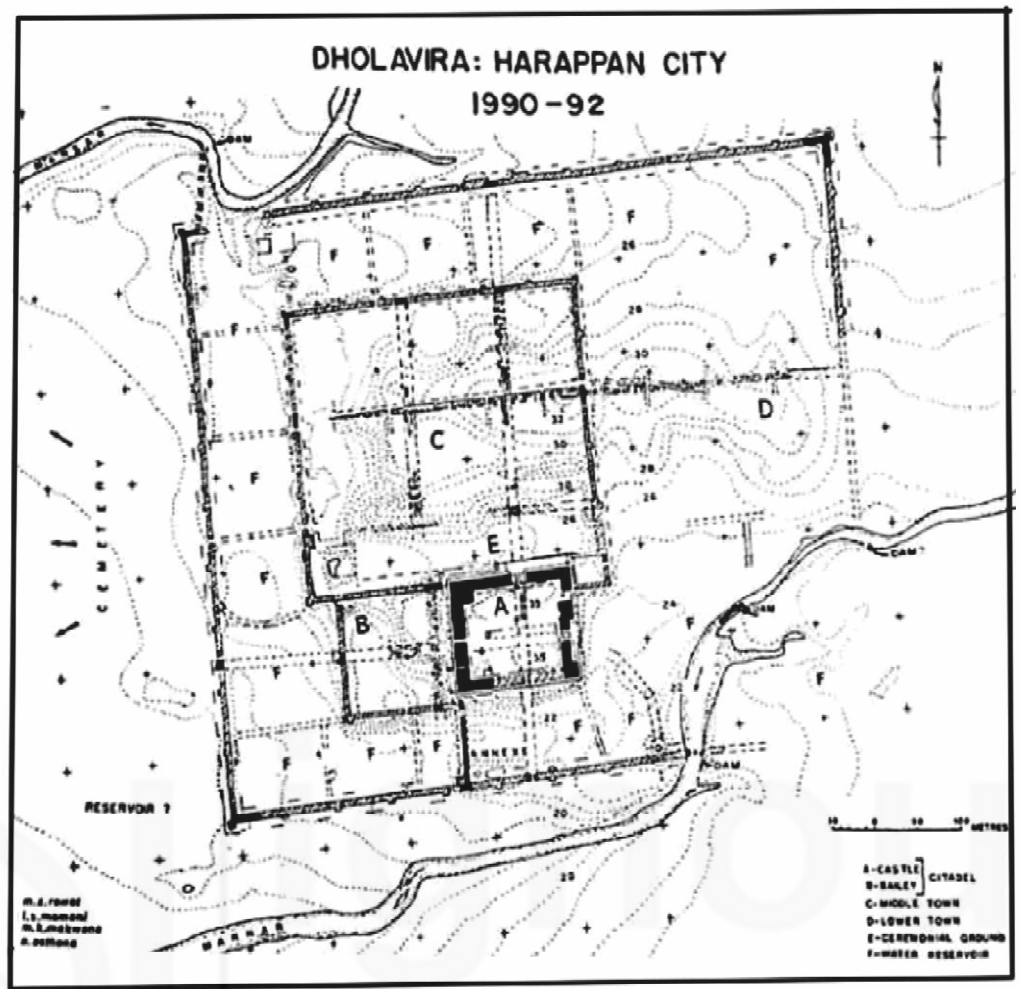


Figure 6.6 : Layout of Dholavira (After *Indian Archaeology- A Review 1991-92*, Archaeological Survey of India, New Delhi, 1996, p. 29, Fig.8).

The terminology used itself suggests the functions of these spatially segregated units. The use of the terms 'citadel' and 'acropolis' suggest elevated and defended units, the 'castle' and the 'bailey' suggest that these were the loci of specialised public functions, while the use of the term 'lower town' suggests a residential area for the general mass of the population. We shall see below how excavations have revealed the possible functions of some of these areas.

Most Harappan settlements were walled. Many of these were massive: the walls at Dholavira were 18 meters wide and at least 9 meters high. Even a small settlement with a size of 1.92 hectares such as the recently excavated Bagasra had a wall around it with a width of 5.20 meters. As pointed out earlier, divided settlements had walls around the separate units. In some cases, walls were free-standing walls and in some revetments (or supporting walls) for the baked brick platforms or sometimes were of both types. Physically, large walls around a settlement, implying the involvement of considerable labour, have been considered to be emblematic of urbanism. Walls around a settlement can, however, have diverse functions ranging from defence, protection from natural forces, to reinforcing platforms to exclusion. Whatever their function, walls clearly controlled access into and out of the city.

At Mohenjodaro what were noticeable were the extensive platforms on both the Citadel and Lower Town ostensibly for protection from flood. These platforms on the Citadel were more than 6 meters high and on these the various buildings were constructed. The platforms served sometimes as foundations or sub-structures for an entire area or for single buildings or even part of single buildings. At Harappa, masses of sun-dried brick

comprised similar platforms to protect the city from floods. Both categories of architecture, walls and platforms, as also the use of burnt brick for structures, illustrate the extensive utilization of labour in the ancient cities. On the assumption that a labourer can move about a cubic meter of earth in a day, Gregory Possehl (2002: 103) suggested that the Mohenjodaro platforms would have taken about 4 million days of labour to construct. That would mean 10,000 labourers working 400 days or a little over a year. 2,500 labourers would have taken 1,600 days or 4 years and 4 months 'just to put the "foundations" in place.'

The technology of protecting the settlement from floods through the use of platforms has been noted at smaller settlements too. At both Lothal and Rangpur in Gujarat, mud-brick platforms were constructed as a probable flood protection measure.

6.3.2 The Issue of Planning

As mentioned in Unit 5, there are two approaches to urbanism: the ramp approach and the step approach. The former envisages a slow organic growth within the settlement from a village to a town where the settlement often gradually grew around a centre which could have varied in nature from political (the ruler), or economic (the market place) or ritual (the temple). The latter, in contrast, conceives of an abrupt development of an urban centre, in many cases the creation of a new urban centre. In an early discussion of planning, Harold Carter (1983: 10) suggested that the conception of a planned city came from a notion where there is a distinct and formal organisation of space, also implying control by a centralized authority whereas unplanned cities suggest that development was perhaps a fragmented and individual process.

An important implication of the foundations or platforms mentioned above is that they would have formed part of a plan for a Harappan city before it was built. Another way in which the issue of planning can be physically investigated is through the roads and streets within the settlements, particularly the so-called grid plan. The best example is Mohenjodaro though Kalibangan and Nausharo can also be included. At Mohenjodaro, the north-south roads (First and Second streets) are clearer than the east-west ones. In some cases, the streets have not yet been excavated but are assumed so because of the gullies that are present on the site. Possehl writes that the layout is regular but not perfect. 'The regularity itself suggests that the founders of this city started with a clean plate, virgin soil, on which they began the construction of their metropolis.'

Other indications of planning can be seen in the provision of civic facilities. One of the features is the extensive system of burnt brick drains that ran along the main avenues of a city such as in Mohenjodaro and connected public drains with house facilities. Within individual houses, drains were of the horizontal type as well as vertical pipes in the walls. Every single house had to have at least one wall along a lane or street so as to access the street drains. This factor itself speaks for great planning and forethought. The provision of sullage pits and manholes into which solid waste would collect and would have had to be regularly cleaned was an important feature of the system. Such drains can be seen at numerous other sites, such as Harappa, Kalibangan, Nausharo, Chanhudaro, Allahadino, Dholavira and Lothal. At sites, such as Lothal, where the architecture was mainly of mud-brick, it is interesting to note that the drains were constructed of baked brick. Evidence of the consciousness to provide civic amenities were also revealed by garbage dumps, one of which was found north of the city of Mohenjodaro.

Wells for drinking water are noted at Mohenjodaro and Harappa. On the basis of the distribution of excavated wells at Mohenjodaro, Jansen calculated that about 700 wells

probably existed at the site in antiquity. These varied in size, with an average diameter of 1 meter and most were located within individual houses. However, wells were often found near entrances, implying that they were accessible to outsiders. At Harappa, the 6 wells recovered during excavations were all located in public areas. The high density of wells at Mohenjodaro suggests that the mean distance between wells was quite low. In the Lower Town, the mean distance between wells ranged from 36-39 meters which may also imply that their locations were planned at the outset.

Another aspect of planning in architecture can be seen in the use of a standard brick size. The standard brick size at Mohenjodaro was $28 \times 14 \times 7$ cms with a ratio of 1:2:4. Burnt bricks were used at Mohenjodaro while other sites used mud-bricks in the same ratios. The advantage of uniformly sized bricks was in the ease of construction. Walls were generally constructed using a bonding technique known as 'English bond' where bricks were laid in alternate headers and stretchers. Usually mud mortar was used to bind bricks together while very rarely the use of mud and gypsum or lime and gypsum were noticed.

The issue of planning is perhaps best seen at a site like Lothal (see **Figure 6.5**). In its earliest occupation, Lothal was a small village which in its next phase was levelled and built anew on an apparently pre-conceived plan. The well-thought out plan can be seen in the allotment of space to different functions within the settlement. The warehouse was located near the dockyard with the Lower Town with its houses of crafters on the other side. Between the Lower Town and the warehouse and in an elevated overseeing position was the so-called Acropolis.

6.3.3 The Use of Space: Non-Domestic

The use of space at Harappan urban centres can be broadly grouped into two categories: domestic and non-domestic. While one may imagine that the terms 'citadel' and 'lower town' embody such a segregation of domestic and non-domestic, it is by no means clear at a site like Mohenjodaro. The 'citadel' does appear to have specialised public architecture and thus largely appears to have been non-domestic in nature, but the 'lower town' was not the locus of only domestic structures, as we shall see below. Let us begin with the non-domestic use of space.

Specialised architecture (Gordon Childe's large monumental architecture) may provide evidence for differentiated functions in an urban context. Structures such as the Great Bath at Mohenjodaro¹, the granary at Harappa and the workmen's quarters with circular platforms and furnaces, also at Harappa, are clearly loci of specialised functions. These are found on the respective 'citadel' mounds. But apart from these obvious specimens are certain more ambiguous structures, interestingly, found in the 'lower town': for example, House 1 in Section HR-A of Mohenjodaro has been suggested to have been a temple on account of its size, access through two monumental stairways, the 'tree-guard' in the courtyard, as well as finds of stone statuary within and in the vicinity of the structure. Similarly, in the northern part of Mohenjodaro, in the DK-G area, a large building termed as a 'palace' was uncovered. This alerts us to the possibility that many of the large structures may have had specialised functions. Yet, apart from size, there is often little contextual evidence to indicate non-residential use of these structures.

What were these specialised public functions taking place on the 'citadels'? These seem to have ranged from large-scale storage facilities to places of assembly and ritual. There seem also to have been living arrangements for a very small section of society,

¹ The Great Bath will be discussed in more detail in the separate Unit on Mohenjodaro at the end of this Block.

perhaps ritual practitioners. On the southern half of the 'citadel' at Kalibangan were found a series of mud-brick platforms with oval pits lined with mud plaster or bricks that have been considered as ritual in nature and have been termed as 'fire altars'. At Rakhigarhi too a row of fire altars has been found on a podium or platform on the Citadel. Similarly, the 'Acropolis' at Lothal, too, has fire altars located on it.

Public or non-domestic space was also taken up by the roads and streets that passed through various settlements. These were arteries in many cases allowing access between different parts of the city. This is very clear at Mohenjodaro where the different excavated localities, such as HR or VS or DK, were in fact connected through the roads and streets. These roads and streets were also important for providing avenues for the public drains. At Lothal, streets and lanes in the citadel (called the Acropolis) were paved with mud bricks and covered with a layer of *kanker*, while those in the lower town had a base of terracotta balls or *kanker*.

Other non-domestic usage of space can be seen in the cemeteries uncovered at a few Harappan sites. Prior to the Harappans, the tradition seems to have been to bury the dead within the living space, that is, the house. The allocation of a separate space near the settlement for burying the dead can be seen particularly at Harappa, Kalibangan, Lothal, Ropar and Rakhigarhi. However, at many settlements, including a major one such as Mohenjodaro, cemeteries have not been found. There are significant implications involved in the use of space for cemeteries: clearly, the most important is the change in attitude regarding disposal of the dead, but another aspect involves the keeping aside of space for burials, particularly in an urban situation. Because space would have been at a premium within a city, it makes sense that at Harappa, the cemetery labelled R 37 is located about 250 m to the south of the high mound AB while at Kalibangan the cemetery lay about 300 meters west-south-west of the habitation. Just like these two sites, the cemetery at Lothal too lay outside the walls but about 10 m away and due west of the settlement. At all these three sites, the cemeteries were situated outside the walled areas demarcating the living spaces. The significance of these burial spaces lay in the clear demarcation between the living and the dead. At the same time it can be seen that it was necessary to allot space outside the settlement, yet not too far away, for the dead. In an urban context, this was valuable space that could have been used for various other purposes.

Public space was significantly used in a strikingly different manner at Dholavira in Kutch. Here, several massive reservoirs or water storage tanks were constructed along the inner side of the outer wall. In one case, one of the reservoirs was cut into the bedrock while in another case stone blocks were used in construction. Flights of steps provided access into the reservoirs, which were probably excavated for the storage of rainwater. At Lothal too a large construction for holding water but for a possibly different purpose can be seen immediately to the east of the settlement. This has been called as a 'dockyard' suggesting that small boats could reach the site from the Gulf of Khambhat through the nearby river. Yet another large water body, the Great Bath, was constructed at Mohenjodaro, in this case perhaps for ritual purposes (for more details see Unit 9).

At Dholavira, another kind of public space has been noted to the north of the Citadel (or between the Citadel and the Lower Town). This is an area of about 100×275 meters and has been interpreted by the excavator as a "ceremonial ground" or "stadium" or an area for "holding bazaars". Except for the Lower Town, which is built up to the outer wall, there are also considerable open areas to the north and the south (between the Citadel and the outer wall and the 'Middle Town' and the outer wall) (see **Figure 6.6**).

6.3.4 The Use of Space: Domestic

There is plenty of evidence for the domestic use of space, with houses having been recovered at practically every excavated Harappan site. The considerable variety in house forms within as well as between sites is particularly interesting. Numerous houses at Mohenjodaro were built using the courtyard as an open space generally surrounded by other rooms. Open spaces may also have been used to separate individual structures or house units as seen from several parts of Mohenjodaro. A method to study individual house types was devised by Jansen's team at Mohenjodaro where rooms were distinguished on the basis of their location and means of access. They distinguished entrance rooms from transit and terminal rooms (see **Figure 6.7**). Transit rooms were those with more than one entrance. Terminal rooms were those such as the toilet and bath and had only one entrance. Classifications on the basis of this kind of access system enabled labelling of rooms as public and private (Jansen, 1984: 40). In many houses, a second storey could be accessed from one or two sets of stairways. Most houses had at least one paved room functioning as a bathing area, from where drains connected with the street drains.

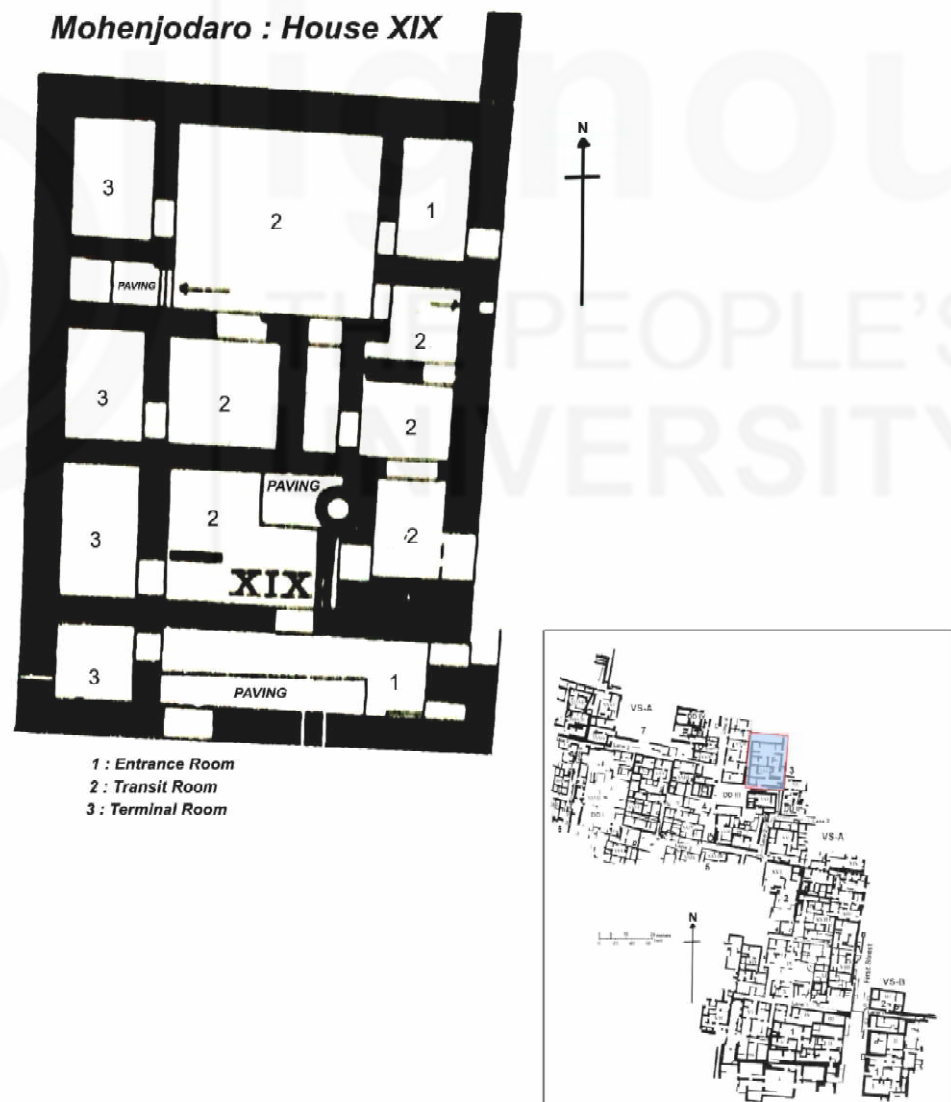


Figure 6.7 : Terminology of Rooms within a House (XIX), VS Area, A Section, Mohenjodaro.

Variations, in some cases highly localized, can be noted at other sites. At Banawali, for example, a house, measuring 52×46 m, has an interesting plan (see **Figure 6.8**). There are several rooms within the house but what marks the house apart are the small cubicles that have been built into its thick western wall. These cubicles measure 1×1 m or sometimes 1×2 m and are too small to enter. The excavator has speculated that these could have functioned as vaults or storage cells for valuables or grain. The courtyard in the house is to one side. Access to the other rooms is from the courtyard and the courtyard itself opens onto the street. But what marks this house at Banawali, considered as one of typical plan at the settlement, as different from Mohenjodaro houses is that at the latter settlement, the courtyard did not have direct access to the street. In fact, archaeologists have speculated that Mohenjodaro houses were planned so as to ensure the private nature of the courtyard. This house at Banawali was also surrounded by roads and lanes on all four sides ensuring its independent location. In contrast, Mohenjodaro houses were in blocks but in both cases the need for access to a street was necessary for the house drains to enter the street drains.

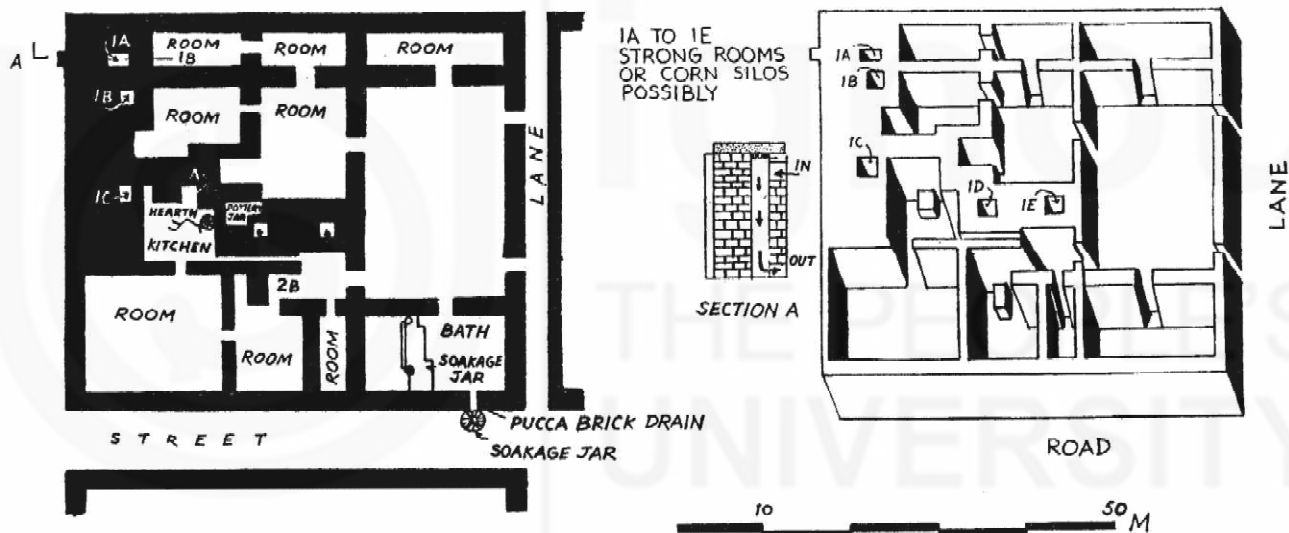


Figure 6.8 : A Banawali House (After Bisht, R.S., (1984) 'Structural Remains and Town-Planning of Banawali', in Lal, B.B., and S.P. Gupta (eds.), *Frontiers of the Indus Civilisation*, Sir Mortimer Wheeler Commemoration Volume, New Delhi : Books and Books & Indian Archaeological Society, p. 95).

Just as at other settlements, there is no uniform pattern to houses at Lothal. Some houses at Lothal were unusual in that they were linearly aligned with what appear to be a double row of rooms. One house has eight rooms in a double row and one of the rooms has been labelled by the excavator as a verandah even though it looks exactly like the rest of the rooms. An adjacent house has ten rooms in two rows with walls extending outwards from the two rows to make a possible courtyard. This has been labelled as a merchant's house. Both houses are aligned in a linear fashion along a main street. In other cases, such as House 159, the pattern is very different with a squarish structure of a very large front room backed by two smaller rooms of different sizes (see **Figure 6.9**).

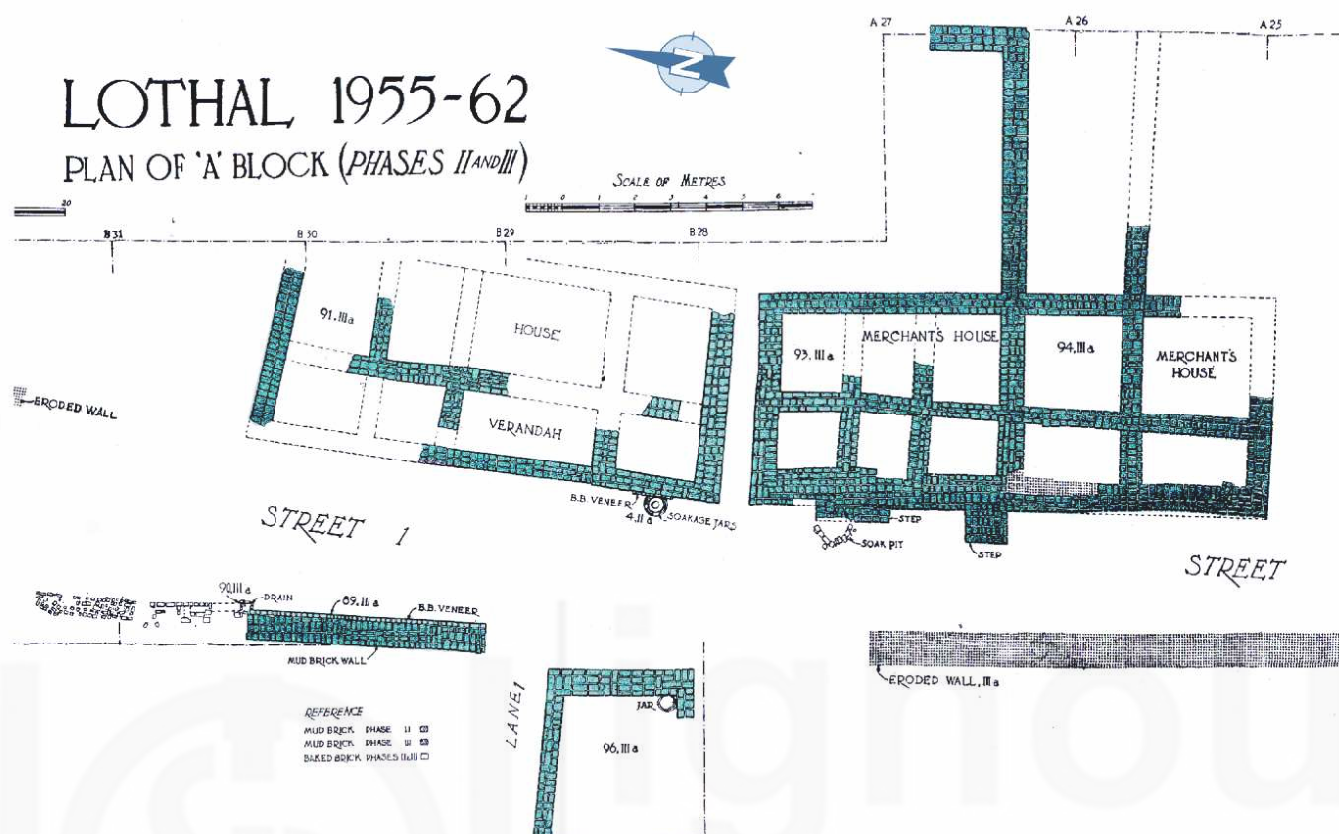


Figure 6.9 : Houses at Lothal (After Rao, S.R., *Lothal: A Harappan Port Town (1955-62)*, Vol. II, New Delhi: Archaeological Survey of India, 1979, Plate XXXVIII).

As mentioned earlier, Lothal provides an excellent example of a planned settlement. This can also be seen in the spacing provided between houses that were also living and working places of crafters. The spacing between houses at Lothal is different from large urban settlements such as Mohenjodaro where houses were built up against each other with party walls (or shared walls), showing organic growth. The lack of party walls between houses at Lothal instantly sets the settlement in a separate category. This probably emanates from the settlement being completely planned and built for very specific functions that included production and distribution. Much more on this issue will be dealt with in the following Unit 7.

At both Lothal and Rangpur in Gujarat, houses were constructed of mud bricks in the usual ratio used by the Harappans. This may indicate a shortage of fuel for firing of bricks. However, where required, baked bricks were used, such as in the construction of drains. Both Harappa and Mohenjodaro, however, were marked by the use of baked brick for housing and public architecture. But at other settlements where perhaps clay for bricks was in short supply, construction was undertaken in what may have been locally available materials such as stone, as at Surkotada. Floors were sometimes paved with mud-bricks and in other cases made of rammed earth or lime and *kanker*. Holes in the ground, called as postholes, suggest that posts or poles were embedded in them and used as supports for the roofs which may have been of bamboo or wood. While we have little evidence that walls were decorated with paint, they were plastered with lime. Sometimes walls of rooms had several niches all along their length perhaps

for keeping things. At cities like Mohenjodaro, sizes of rooms may have dictated the presence or absence of roofs. Large rooms would have been difficult to roof over as large wooden beams would have been required. Thus, either these would have been left unroofed (such as courtyards) or in some cases supported mid-way across the room with wooden supports. Much of the light in these houses, in fact, would have come from the open courtyard as outer walls of houses had few windows, which if available, were very small.

Construction patterns also differ. Structures with more massive walls are found which could indicate the need to carry further storeys or to combat heat, or could suggest economically wealthier inhabitants. The change from thicker to thinner walls over time as happened in Harappan cities may be because of more flimsy walls being built in the later periods of decline. At Harappa thatched huts were found near the working platforms on Mound F. What does this differentiation indicate? It may reflect variable degrees of wealth where larger, better-built structures may have belonged to wealthier sections of society. Wealth, as determining house sizes may not be very useful, as other explanations could also suffice, such as nuclear households as opposed to joint patterns of living. As may be expected in a true urban conglomeration, there is no spatial concentration of large as opposed to small houses. However, it is possible that in large cities, spatially extensive structures may have been multi-functional in nature rather than purely domestic.

6.4 SUMMARY

Urban life involves a complexity of social, economic and political relationships that are reflected to a great degree in the physical infrastructure. We are completely dependent on archaeology to explain to us some of the patterns of daily life that took place in the Harappan cities. We get a picture of a remarkably resilient material culture that survived for about seven hundred years. The next Unit will focus on the variety of occupations of Harappan city dwellers.

6.5 EXERCISES

- 1) How are the spatial aspects of urbanism reflected in the archaeological record? Comment taking the case of the Harappan civilisation.
- 2) Study Figure 6.1 to analyse the possible reasons for the location of Harappan settlements.
- 3) Discuss the internal morphology of Harappan towns.
- 4) Discuss the evidence for planning in Harappan cities.
- 5) What was the general pattern of the non-domestic use of Harappan urban spaces? In what ways did public space utilisation differ at Dholavira and why?
- 6) Assess the nature of domestic use of spaces of the Harappans.
- 7) Compare and contrast the house patterns of various Harappan settlements. What are the distinguishing features of houses at Lothal and Banawali?

UNIT 7 HARAPPAN ECONOMY AND OCCUPATIONS*

Structure

- 7.1 Introduction
- 7.2 The Subsistence Economy
- 7.3 The Non-Subsistence Economy
- 7.4 Craft Production
- 7.5 Exchange Networks
- 7.6 Summary
- 7.7 Exercises

6.1 INTRODUCTION

In this Unit, we will see what people did in the past in an urban milieu. We are specifically interested in discerning what it is that economically distinguishes an urban centre from a non-urban one. Multiplicity of occupations seems to be the key factor demarcating urban from non-urban situations. This emanates primarily from a dense population that can not all be accommodated within agriculture. The need for new products and services necessitated specialisation of production which became a distinct part of the urban scene.

We will, however, start with the base, or the subsistence sphere, which comprises agriculture and allied occupations. This is, contrary to general perception, an integral part of ancient urban centres where agriculturists were a significant proportion of the population. For Bronze Age urban centres, especially the Harappan where the data is primarily archaeological, we may find the evidence for agriculture not only from botanical remains such as burnt seeds but also from certain artefacts. We can also study Harappan settlements (particularly the smaller ones) to see the logic behind their location. Mohenjodaro, for which we have ample evidence, will be covered in detail in Unit 9.

7.2 THE SUBSISTENCE ECONOMY

Farming, animal husbandry, fruit gathering, fishing and hunting comprise the sphere of activities that provide the basic means of survival, which is food. We are, in the Harappan period, dealing with well developed farming regimes that utilized fields year-round. In other words, both winter and summer crops were grown in the Harappan period, the direct evidence for which we have in the form of burnt seeds. The major cereal crops were wheat and barley, both winter season crops. Others grown in the same season were peas and chickpeas, mustard and sesame. A fibre crop such as flax was also a winter crop. Certain other crops were grown in the summer such as cotton. For cotton, a non-food crop, the evidence is in the form of small fibre pieces found on artefacts of silver and metal at Mohenjodaro, suggesting the objects were wrapped in the fibre. In areas such as Gujarat, summer crops included millets. The evidence for rice, a summer crop, is yet unclear as what has been found so far may be uncultivated forms. Fruits

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would also have been eaten and may have been grown or nurtured such as pomegranates, dates and grapes. Gathering of wild fruits such as jujube or *ber* is also evident from burnt specimens found at sites.

That animals were kept by the Harappans is known from a variety of sources. For one, we have the bones of several domesticated species, such as cattle, buffalo, sheep/goat and pig. Several terracotta figurines of animals have been found from Harappan sites. These are of the bull, ram and dog. The bull is also a popular motif on Harappan steatite seals. Cattle were used for transportation and for ploughing. For the former we have several terracotta carts, cart frames and wheels and for the latter, terracotta models of ploughs that have been found from Shortughai, Banawali and from sites in the Cholistan region of Pakistan. Cattle, sheep/goat and pig would also have been part of Harappan diet, as seen from the cut marks on the bones.

Harappan sites have also given evidence, in the form of bones, for wild animal species, such as deer, boar, and so forth that again must have been part of human diet. These species would have been obtained through hunting practiced either by the Harappans themselves on occasional expeditions or by other communities who traded meat for other produce, such as grains, with the Harappans. Harappan knowledge of wild animals transcended those species used for food. Harappan seals provide evidence of wild animals such as elephant, rhinoceros and tiger that would not have been part of their diet.

Living near water bodies and rivers also meant the possibility of fishing. Excavations have revealed the bones of several varieties of Indus fish at Mohenjodaro. Sea fish were also consumed as is known from a site like Balakot. Marine fish, in fact, were transported as a food source inland to settlements, such as Harappa. Evidence for fishing has also been recovered in the form of tools such as copper fish hooks.

The implications of all the above is that Harappan agriculture provided a well-rounded range of crops with varied cereals, oil and fibre crops. Combined with animal protein, it showed that the Harappan diet was a varied one. Agriculture was also intensive in that the same fields were used for growing more than a single annual crop. The evidence for both winter and summer crops meant the Harappans practiced double cropping. Though plough shares have not been recovered yet, terracotta toy models of ploughs indicate their use. Evidence of a ploughed field, with two different kinds of furrows, at Early Harappan Kalibangan has shown that multiple cropping (the growing of two or more crops in the same field) was also practiced. Among the numerous stone blades that have been found, some may have been used as sickle elements for harvesting cereals.

Irrigation was also a necessary requirement in farming. Were the annual floods of the Indus river used to grow crops? Sites which are in the floodplain, however, would have been in danger of not only losing their crops but also their houses. The evidence of periodic flooding at Mohenjodaro indicates the danger of the Indus for nearby settlements. Canals or channels from rivers would have been more useful for irrigation and the technology was known as can be seen from drainage channels in cities, but there is no evidence for their use for irrigation in the Indus plains. The only evidence of canals has been recovered from the site of Shortughai in Afghanistan. It is possible that the archaeological evidence for channels from rivers may have been submerged under years of silt deposition. However, another plausible method of irrigation may have been through wells. The technology of building wells for drinking water was known to the Harappans and it is quite possible that lift irrigation through wells may have been used to water crops.

7.3 THE NON-SUBSISTENCE ECONOMY

Let us put the following bits of evidence together:

- Harappan agriculture was intensive
- The area available for fields around a city was limited due to constraints on travelling too far between the home and the field
- Thus, not every household would have had its own fields
- Numerous individuals/households would have had to move to other occupations.

Hence, while farming would have been one of the occupations in a Harappan city, a city was actually known for varied occupations, requiring other kinds of skills. The demand too for different kinds of work, such as construction, maintenance, ritual, and so forth, would have meant that these were performed by individuals specialised in them. In some cases, these skills were the accumulation of several generations of expertise such as potting, in some new skills were developed such as of constructing drainage channels or the carving of steatite seals. One of the distinctive features of urbanism rests in the diversity of occupations, a situation that we can clearly see in the Harappan cities.

Non-agricultural occupations that provided the means of livelihood for several individuals were unusual in another sense in Bronze Age cities that functioned without coinage. This meant that individuals who provided various services for other individuals, households and communities had to be compensated for their labour in ways without money. For example, brick makers who made the millions of fired bricks for building houses at Harappa and Mohenjodaro, the masons who built the monumental architecture of the cities, those who cleaned the streets and drains had to be provided with their subsistence. Bronze Age cities are known for this large scale use of labour for varied purposes.

7.4 CRAFT PRODUCTION

Some of the major non-agricultural occupations in Harappan cities comprise craft activities. The Harappan period is known for considerable virtuosity and skill in crafting artefacts out of a varied range of materials. Like other human activities, craft production is also understood to leave certain archaeological traces. Maurizio Tosi (1984: 25) had suggested a list of archaeological indicators for craft production. These consist of:

- facilities
- tools for manufacture
- residues or by-products of manufacture
- broken tools
- semi-finished products
- raw materials such as masses of stone kept for further processing
- stocked or unworn products as well as
- materials kept for recycling.

The co-occurrence of indicators would furnish a clearer picture of craft production in contrast to isolated finds of indicators. Similarly, tools (chisels, drills, saws, etc.) and facilities (such as dye-vats, kilns or furnaces) were considered as more reliable indicators than stored or unworn products. The last, in fact, need not indicate production but rather distribution.

If we use indicators such as these, we find that at some settlements, no evidence for production has been found. This could either mean that production was not undertaken at such places or that craft working areas within these settlements have not yet been excavated. However, during excavations, representative areas within a site are probed providing a reasonable picture of activities at that settlement. Hence, absence of production indicators at a site may just well suggest that no production took place there.

Numerous crafts were practiced by the Harappans. These were pottery and terracotta production, metalworking, bead making, faience production, shell working, stone working, and so forth. One can also look at Harappan crafts from the point of view of material as various materials were used to produce a varied range of artefacts. Thus, stone working implies the making of stone tools, stone vessels, beads, seals, weights and so forth. One cannot equate all of these as the technologies, skills and demand would differ. Thus, the number of settlements at which stone tools were produced too shows a difference from those where weights were made. Practically 50% of sites with stone tools give evidence for their production while the corresponding figure for weights is only 15%. This kind of difference does not arise from technology. Much the same flaking techniques would be used for making stone tools as for weights. The difference comes from the requirement of such objects. Weights were made for the specific purposes of weighing which needed verification and standardization unlike tools such as blades which were required for basic cutting and slicing operations. Thus, weights were made at very few settlements and probably under supervision while blades were made often by the users themselves. However, here again we must remember that there were different kinds of blades. The most superior blades were the long ones made by a material, chert, the best quality of which was available only from Rohri in upper Sind. It is quite possible that long chert blades were made at Rohri and transported to consumers at other settlements.

A marked feature of Harappan crafting is that most raw materials were found outside the Harappan occupied area. For copper, the Harappans may have used various sources, such as Khetri in Rajasthan, small scale sources in Baluchistan as well as from Oman. Good quality stone, such as carnelian, for beads came from south Gujarat outside Harappan influence. Steatite used to make seals and beads also may have come from sources in south Rajasthan and north Gujarat, again in areas with no Harappan settlements. But the Harappans devised methods to obtain these materials as we shall see later. Other materials like chert and shell came from the Harappan zone.

Often it is thought that it makes economic sense to locate production at raw material source areas but this largely does not seem to have been true in the Harappan case. While shell was worked near the source area (the coast), it was also worked way inland at other settlements. The main reason why it was thought worthwhile to transport raw shell inland or other raw materials far from their source areas was because several craft specialists lived and worked within urban centres. In a craft working with metal, we rarely find metallurgical activities, where smelting of ore is done. Often, we find that the ore was smelted at source areas and ingots of metal transported in to production centres. However, there are still sporadic cases where ore has been recovered from Harappan sites.

Where were crafts practiced within a settlement? Were there separate locations for separate crafts? Several settlements such as Mohenjodaro have given evidence for pottery production taking place on the outskirts or periphery. This could be due to the heat generated from the kilns but probably more because of requirements of space for

potting. This is a picture that we see from several other Bronze Age contexts, such as from Shahdad in ancient Iran.

We have one concrete example of a work area for a potter from a Harappan settlement at Nausharo in Baluchistan, roughly dated to about 2500-2400 BC. In the working area of the potter were found tools such as four unused flint blades, a fired clay scraper and a bone spatula that was shiny with use. There were also two grinding stones, perhaps for crushing pigments and a clay coil measuring 40 cm in diameter. What was important, was that more than 200 scraps of unfired clay probably left from the scraping of vessels while they were being made were discarded and scattered in an area near the grinding stones. These were residues from the manufacturing process, one of the indicators for craft production. The southwestern part of the workshop was used to store the vessels after they had been formed. Some 25 unfired clay vessels of various shapes were found in a heap almost 15 cm deep. By the appearance of the heap, it seems the vessels had been originally standing on a shelf that must have collapsed. The vessels were complete except for the painting and firing. It seems the work area was abandoned, which is why we find the vessels were left incomplete.

There seem to be roughly three patterns for crafting in the Harappan period. In one, we find centres dedicated to crafts in medium-sized settlements, such as Chanhudaro and Lothal. In the second pattern, we find small settlements set up at raw material source areas, perhaps specifically to exploit certain raw materials, such as Nageshwar and Balakot for shell and Shortughai for lapis lazuli. In the third pattern, we find crafting taking place within large cities where multiple crafts were just some of the occupations among several others. We will briefly discuss these three patterns.

In the first pattern, Lothal is an interesting case of a deliberately established settlement. Period I at Lothal is a non-Harappan village where a micaceous red ware was the primary ceramic being used. In the following period, the village was levelled over and a new planned settlement was established. As we have seen in the previous Unit 6, this settlement had demarcated specialised areas for various activities. The houses in the lower town which give evidence for crafts such as shell working, metal working and bead making are spaced apart and show little organic growth and were linearly laid out along streets. In an elevated position was the so-called 'Acropolis', with baked brick drains and fire altars on it. The elevation of the 'Acropolis' served to differentiate it from other areas within the settlement as well as enable it to have a supervisory role over other activities taking place in the lower town as well as the warehouse and the dock area. The significance of Lothal also lies in its location. Close to the Gulf of Khambhat for exchange purposes by sea and proximity to raw material sources such as carnelian and steatite meant that the settlement may have had both production and distribution tasks for the Harappans.

Chanhudaro is a similarly sized settlement as compared to Lothal but is located in the Indus Valley, on the left bank of the Indus. Originally probably a single mound, the site now consist of three mounds (see **Figure 7.1**). The major excavations here were conducted on Mound II by Ernest Mackay. He found substantial evidence for varied crafts, such as metal working, bead making, shell working, weight and seal making, in the form of raw materials, unfinished and finished objects, debitage or waste, tools and facilities. A high number of unfinished seals suggest this was a major seal production centre for the Harappans. Another artifact, long barrel-cylinder beads made from the red carnelian, was clearly made here as suggested by the number of broken and unfinished pieces. Unfortunately very little of the actual structures within which crafts were practiced survive. What still remain are a few walls and paved areas for bathrooms and toilets as well as the baked brick drains running along the streets to suggest the locations of

houses. The settlement appears to have been a well-laid out town built on huge mud brick platforms, perhaps as a protection against flooding from the Indus. The location of Chanhudaro on the left bank of the Indus suggests its location was to obtain raw materials and craft artefacts from them rather than transport raw materials across the Indus.

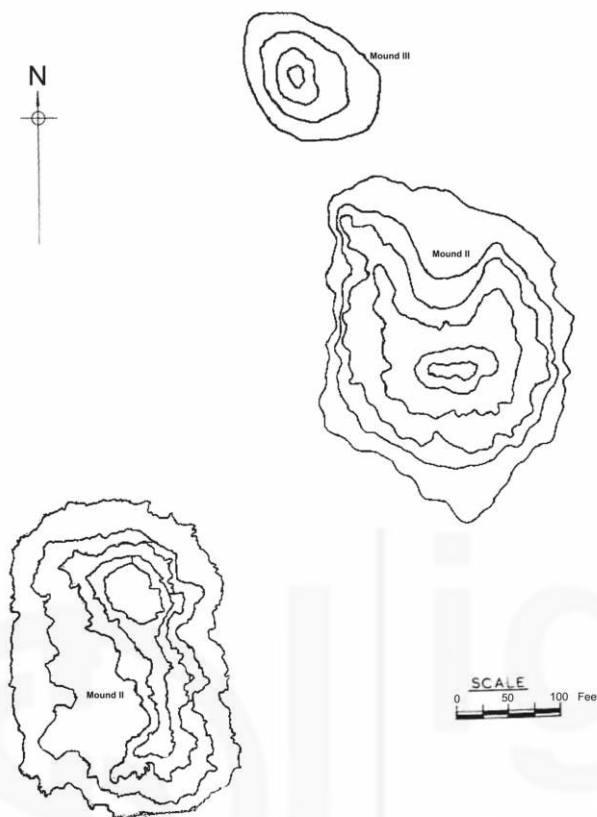


Figure 7.1 : Layout of Chanhudaro (After Mackey, E. J.H., (1943) *Chanuhudaro Excavations, 1935-36*, New Haven, Connecticut: American Oriental Society, Plate I).

In the second pattern, we have the case of small settlements deliberately set up near raw material source areas. Unlike in the above case where we find a range of crafts being practiced at small centres, here we find settlements focused on a single craft utilizing locally available raw material. Nageshwar is a small (1.4 ha.) site located in the northwestern tip of the Saurashtra peninsula on the southern coast of the Gulf of Kutch. The site had peculiar locational characteristics. The mound was close to a sweet water lake in an area of brackish water. The site was also close to two shallow bays, Pindara and Poshitra, from where shell was easily available. However, the area was rocky and apart from the lake, inhospitable, as soil available for cultivation was restricted to a narrow margin near the lake. It appears that the main sustenance of Nageshwar was provided through manufacture and exchange of artefacts of shell. Another interpretation made by the excavators was that locally available tough grasses in the lake were used to make raft-like vessels to fish for shell further out in the bays where less damaged specimens would be available, as also to transport the manufactured artefacts out of the area.

Nageshwar is a single-period site, confined to the Mature Harappan. Thus, it was established in the Harappan period for a specific purpose which was not required in subsequent periods. It seems that production was geared for outside consumption. The clearest evidence for this was the complete absence of finished ladles (or spoons) at the site as contrasted with the recovery of considerable quantities of ladle-manufacturing waste or debitage. Even apart from ladles, it is unlikely that a 1.4 ha site could have consumed such quantities of bangles or inlay of shell either. Its deliberate establishment

indicates the demand for shell in the Harappan period. Balakot is another case of a small settlement concentrating on a local resource, shell. Balakot, however, differed from Nageshwar in that at the former site there was an Early Harappan settlement which was succeeded by the Mature Harappan one. Interestingly, at Early Harappan Balakot, the manufacturing of shell objects was not noted. In fact, the exploitation of marine resources for both dietary and craft purposes began only in the Mature Harappan. Shortughai in north-east Afghanistan is a case of a Harappan site completely outside the distribution area of Harappan settlements. Again the rationale for its location was the proximity of outcrops of a prized and high-quality semi-precious stone, lapis lazuli. Evidence for the manufacturing of beads of lapis lazuli and carnelian was recovered from the site. Shortughai, like Nageshwar, was established in the Mature Harappan period.

How are we to understand these two patterns of production? The production behaviour seems “economizing” where it was probably considered suitable to locate settlements near the source of raw material. Thus, instead of carrying the bulky shells inland, artefacts such as bangles, ladles and inlay were made at settlements which obtained the raw material and worked them. However, we are dealing with periods when such “economizing” behaviour did not entirely prevail. This can be seen in the third pattern of production.

Thus, from the first two categories of settlements where proximity to raw materials was an important factor in their location, we come to the third category where the opposite was the case. Raw materials were transported into large urban centres such as Harappa and Mohenjodaro. Unlike the earlier cases where the major focus was on craft, at these settlements, craft production was only one among several other occupations. In both the earlier two categories, craft objects were largely produced for consumption outside the settlements but in this case crafted products were used both within the settlement and were perhaps distributed in nearby settlements. With some craft products, as we shall see below, certain crafts were deliberately located at the large urban centres.

Surveys and excavations at Mohenjodaro have shown that craft activities were largely concentrated in the southeastern part of the lower town. Thus, other parts of the site may have been used for other functions such as administration and/or ritual in the Citadel area or residential in other parts of the lower town. Such a picture of craft location also differentiates the larger urban centres from the first two categories of craft centres such as Chanhudaro or Nageshwar where the settlements almost entirely were given over to production.

The above is a short description of the distribution of Harappan crafts at settlements. Harappan technologies were considerably diverse and innovative. The virtuosity of Harappan crafters in dealing with varying types of materials is a distinctive feature of ancient technology. Considerable skill was employed in reworking materials into new forms, such as steatite powder into a type of faience specific to the Harappans, or making miniature steatite disc beads, or manufacturing and drilling the exceptionally long barrel-cylinder carnelian beads, or etching carnelian beads with designs. That these skills were rare is seen from the fact that such artefacts were produced at very few places. Their rarity too indicates their value as luxury products. These were also sometimes carried to distant regions such as Mesopotamia as we shall see below.

7.5 EXCHANGES AND NETWORKS

How does the archaeologist look for exchange? The simplest method is to see where objects crafted by the Harappans are found outside the Harappan occupied area. This is, in fact, what first led to knowledge of the links between the Harappan and the

Mesopotamian regions. It was only when Harappan material like steatite seals, the typical cubical chert weights and certain carnelian beads were found at Mesopotamian sites that scholars realized that the Harappan sites like Mohenjodaro were contemporary to Bronze Age Mesopotamia. Till then, there had been no conception of the antiquity of the Harappan sites. Similarly, exchanges between the Harappan region and sites in Karnataka were suggested when micro steatite beads, again typical of the Harappan, were found in that region.

There seem to have been several levels at which exchanges took place, if we take raw materials and manufactured goods into consideration. The closest would have been between cities and nearby villages. It is a commonly accepted feature of urbanism that cities provided villages with manufactured goods and services while subsistence produce moved in the opposite direction. This probably was the case in the Harappan period. Materials, such as subsistence goods and manufactured products, may have been transported on the head, or on animal back or by bullock carts.

Similarly, certain crafted objects, such as weights and seals, were produced at very few centres. Even in the case of shell bangles or stone beads or metal tools, we see that these were not made at every settlement, yet were found at most. Thus, there would have been networks through which raw materials, crafted objects, grains, meat and even ideas and people were exchanged between different settlements. In many cases, rivers may have been the arteries along which goods and materials moved.

Other than these immediate exchanges, there would also have been exchanges between settlements spaced further apart. From these further areas probably came required raw materials for Harappan craft working being undertaken in the cities and towns. We have already seen above that the Harappans obtained several required raw materials from outside their zone of occupation. This would have meant contact with local communities. Copper, for example, was possibly mined in the Khetri region, an area where there are no Harappan sites. However, there was a local copper-using archaeological culture called by archaeologists as the Ganeshwar-Jodhpura culture. Thus, either the Harappans organised their own expeditions to mine, smelt and transport back ingots to Harappan sites or engaged in exchanges with these local communities. With certain other materials like shell, settlements (such as Nageshwar and Balakot) were deliberately established to obtain the raw material whereas in other cases like steatite (south Rajasthan) or carnelian (south Gujarat) or even hard woods (south Gujarat and the Himalayan foothills) we may postulate that these were obtained through Harappan expeditions. It must be similar forays into southern India, perhaps to obtain gold, which resulted in micro steatite beads being found at Neolithic sites in Karnataka. Sumerian texts refer to expeditions that brought back required raw materials, particularly for temples and elite purposes, and it is a pity that no such literature survives in the Harappan case.

From much further away, we find exchanges with different Bronze Age communities. Already mentioned is the Mesopotamian where Harappan goods were recovered from several sites. Interestingly, very little Mesopotamian material is found at Harappan sites. Mesopotamian cuneiform records provide vignettes of these exchanges where the Harappan region is called as Meluhha from where exotic material was obtained. Distinctive Harappan ceramics like Black Slipped Jars were also recovered from excavations at sites in Oman suggesting that liquids were carried to these settlements, bringing back copper to the Harappans. Yet another region with which contact is noted is the island of Bahrein called as Dilmun in the Mesopotamian texts. No manufacturing took place at Dilmun, nor was it known for any raw material; its significance came

purely from its location between Oman, Mesopotamia and the Indus region which explains its major role in exchanges between these three regions.

Two other categories of artefacts were a necessary part of exchange mechanisms. These were seals and weights. Harappan stamp seals are distinctive (**Figure 7.2**), so much so that when they were first recovered from Harappa and Mohenjodaro, scholars immediately recognized them as being the same type as those found earlier in Mesopotamian sites. Mesopotamian seals themselves were entirely different being cylindrical in shape where the design was obtained not by stamping or impressing but by rolling the seal over a clay surface. The distinctiveness of the Harappan seals came from their style conveyed through the motif (often of an animal (see **Figure 7.2 c**), such as the distinctive Indian humped bull) as well as certain signs both of which were present in relief. These seals were made out of steatite which was then fired to achieve a white surface. The back of the seal had a projecting perforated “boss” (**Figure 7.2 a,b**) which meant that the owner threaded the seal on a string and perhaps wore it around the neck. The fact that the motif and signs were in relief meant the object was to be stamped on another material such as clay. This has been proved by several clay pieces bearing seal impressions which were hence called sealings.

The seal motifs were beautifully engraved suggesting these to be artistic endeavours of that time. Apart from animal motifs, there were narrative scenes clearly indicative of episodes that may have had some ritual content. But it is the sign-like emblems that were inscribed above the motifs that have caught the attention of scholars and have been identified as writing. If these were writing (though there is some doubt expressed in this regard recently by Farmer, Sproat and Witzel [2004]), they indicate a level of literacy achieved by the crafters making the seals.

Harappan seals were used to convey a message through what was inscribed as well as the motif. The message probably pertained to the identity of the sender. Thus, what would reach the receiver would be the package with the clay tag or sealing which would identify the sender. If the sealing was intact, it meant the package had not been tampered with. Seals and sealings were an important part of exchange transactions.

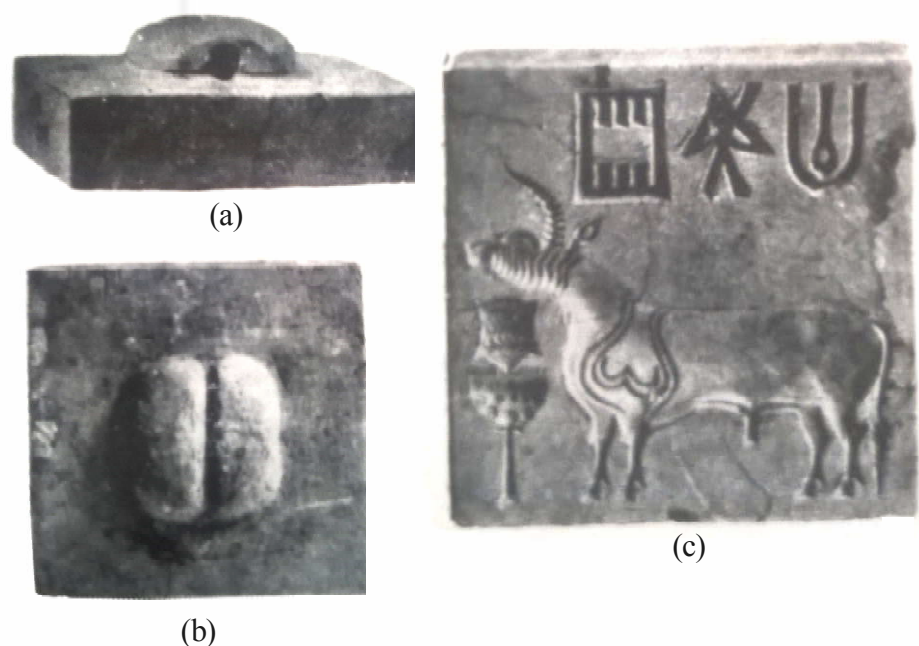


Figure 7.2: A Steatite Stamp Seal (After Marshall, John, (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 3, London: Arthur Probsthain, Plate CII).

As far as the weights are concerned, these were made of chert and were cubical in shape (**Figure 7.3**). These were in a series of regular gradations. The uniformity of these weights can be noted in their shape as well as material.¹ Interestingly, as mentioned earlier, both seals and weights were made at a handful of settlements indicating that both categories of objects were made under supervision.

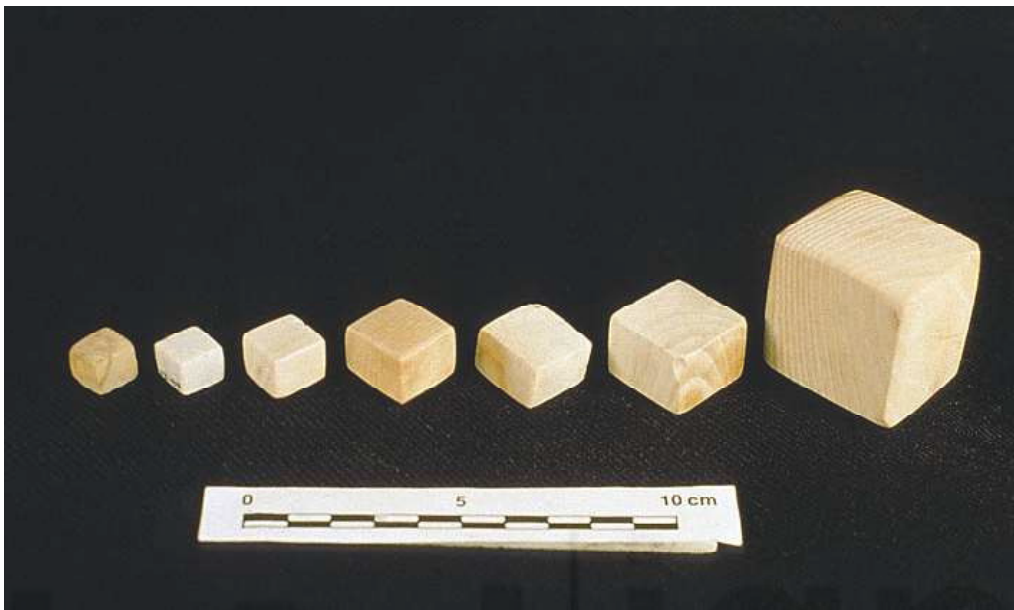


Figure 7.3 : Cubical Chert Weights from Allahdino, Sindh
(J.M. Kenoyer, Courtesy: <http://a.harappa.com/content/how-did-harappans-measure-value>).

7.6 SUMMARY

If we take multiplicity of occupations of a non-agricultural kind as a key criterion of urbanism, then several of the Harappan settlements like Mohenjodaro and Harappa would qualify as urban centres. That does not seem to be the sole criterion. Certain other settlements, like Chanhudaro and Lothal, while primarily devoted to craft, are also urban but in a different category from the larger centres. Thus, producing for outside consumers would also seem to be a characteristic of urbanism. Yet, other major characteristics of urbanism lie in the social sphere which is what we will look at in the next Unit.

7.7 EXERCISES

- 1) What do you understand by subsistence economy? Explain in the context of the Harappan civilisation.
- 2) In Harappan cities agriculture constituted a significant form of production. Comment.
- 3) Discuss the pattern of non-agricultural production in a Harappan city.
- 4) How did the Harappans organise craft production?
- 5) How do archaeologists look for exchange? Construct the story of Harappan exchange patterns.
- 6) What are the mechanisms that would have aided the exchange of goods and resources in the Harappan period?

¹ The Harappan weight system is well understood. The most common has a mean value of 13.63 gm; others are fractions or multiples of it. If we take 13.63 as the ratio 1, we get a sequence of 1/16, 1/8, 1/4, 1/2, 1, 2, 4, 10, 12.5, 20, 40, 100, 200, 400, 500 and 800 (Ratnagar 1981: 184).

UNIT 8 HARAPPAN URBAN SOCIETIES*

Structure

- 8.1 Introduction
- 8.2 Houses as Sites of Difference
- 8.3 Anthropological Perspectives on Consumption
- 8.4 Specialisation and Specialists
- 8.5 Burial Practices
- 8.6 Ideas about Ethnicity
- 8.7 Summary
- 8.8 Exercises

8.1 INTRODUCTION

Urban societies are socially heterogeneous societies, in which were present different kinds of inequalities between individuals as well as social groups. This heterogeneity arises from the factor of nucleation, where people who are unrelated by kinship may come to live together in urban spaces. Urban societies are composed of several kin groups, but the majority of relationships in urban spaces are those between strangers. Because of their large size, urban centres are also spaces where social relations are often not face-to-face or direct. For periods when we have written sources, it is relatively easier to discern the nature of relationships in an urban milieu. But for those periods where we have only archaeological evidence, it becomes more difficult to ascertain how and on what basis people related to each other. There are, however, several ways in which we can propose how people may have related to each other, or judge status differences between individuals and communities. At the physical level, we will expect some degree of heterogeneity, whether at the level of individual residences, in occupations or in the styles and variable uses of artefacts. Burials may also show status differences. Let us look more closely at some of these indicators for social differences in the Harappan case.

8.2 HOUSES AS SITES OF DIFFERENCE

Very often, archaeologists look at houses as a category through which social differences can be worked out. This could take the form of size of houses, construction patterns, layouts as well as locations. We have pointed out in Unit 6 that houses varied greatly in size in settlements. All too often, large size is taken as an indicator of wealth or social status. However, a more nuanced understanding of size needs to be undertaken, with care being taken to ensure that we are not dealing with extended families living under the same roof. We could also well be dealing with a case where a large household, not all of whom were related by kinship, were actually residing together. Often, size together with construction patterns may indicate social differences. M.S. Vats who excavated at Harappa had interpreted certain flimsy huts as houses of labourers as contrasted with other better built houses. Thus, the use of thick walls suggesting a second storey, good facilities for interior drainage, well-paved bathing rooms and so forth, or even the presence of a well in the house may be useful indicators for status differences.

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House layouts also provide useful information. Michael Jansen and a team of German archaeologists who are presently re-studying the evidence from Mohenjodaro have come up with a categorization of rooms in domestic houses. Rooms have been divided into three categories termed as entrance rooms, transit rooms and terminal rooms (Jansen, 1984: 40) (See **Figure 6.7**). Entrance rooms are self-explanatory as those rooms from where one enters a house. Transit rooms are those which have more than one door and thus lead from one room into another whereas terminal rooms are those with only a single door. Harappan houses had multiple transit and terminal rooms. Terminal rooms were often the bathing rooms, the privies and possibly rooms used for storage.

Labelling of rooms is not easy as excavators have very often not recorded the exact find spots of artefacts. Thus, we actually find it difficult to label rooms according to functions, except for the bathing rooms, the privies and the well room. A more or less central large area is often considered as a courtyard that may have had an open roof. Apart from these, other rooms are less easily identifiable. Thus, to use modern terminologies like bedrooms may be problematical. There is one other aspect, which is the accessibility of rooms. Rooms nearer the entrance were obviously more accessible to the outside whereas interior rooms were less accessible. Archaeologists have tried to interpret Harappan notions of privacy from room layouts. Terminal rooms were obviously the most private, and also possibly because of their functions, such as bathing or their use as latrines, or for storage. But interior courtyards have also been seen as private often because access to the courtyard is through multiple rooms. It has been said that a person standing at the entrance to a house has no direct view into the courtyard. The courtyard was probably the space where most daily activities like food processing, cooking, looking after children and even sleeping may have taken place. While many of these activities were the purview of women, it is not generally held that the courtyard was women's space.

While talking of women and women's spaces, it may be pertinent to mention that Harappan houses exhibit an interesting self-sufficiency. This can be seen with the methods of fulfilling water needs as well as personal hygiene. Even if all houses at a large city like Mohenjodaro did not have wells, whatever wells that did exist seem largely to have been located such that they could be publicly accessed. We do not seem to have a scenario where people had to go to the river to get water. Moreover, every house had its nicely paved bathing room with water exiting through drains into the public drains outside the house. Many houses had privies too.

Where houses were located relative to each other can also illustrate social differences. Rita Wright saw from a plan of houses in the Lower Town at Mohenjodaro that in one case the interior drains from the large houses II and III in Block 2 of HR-A (see **Figure 8.1**) exited into a public drain in the adjacent lane but the man holes in these public drains in Street 1 opened right in front of the smaller houses X and XI. She has noted that 'the odors and experience of encountering these pits on a daily basis would have been a strong reminder of one's place in society.' (Wright, 2010: 246) She has been able to deduce that the relative locations of houses can indicate social differences between households.

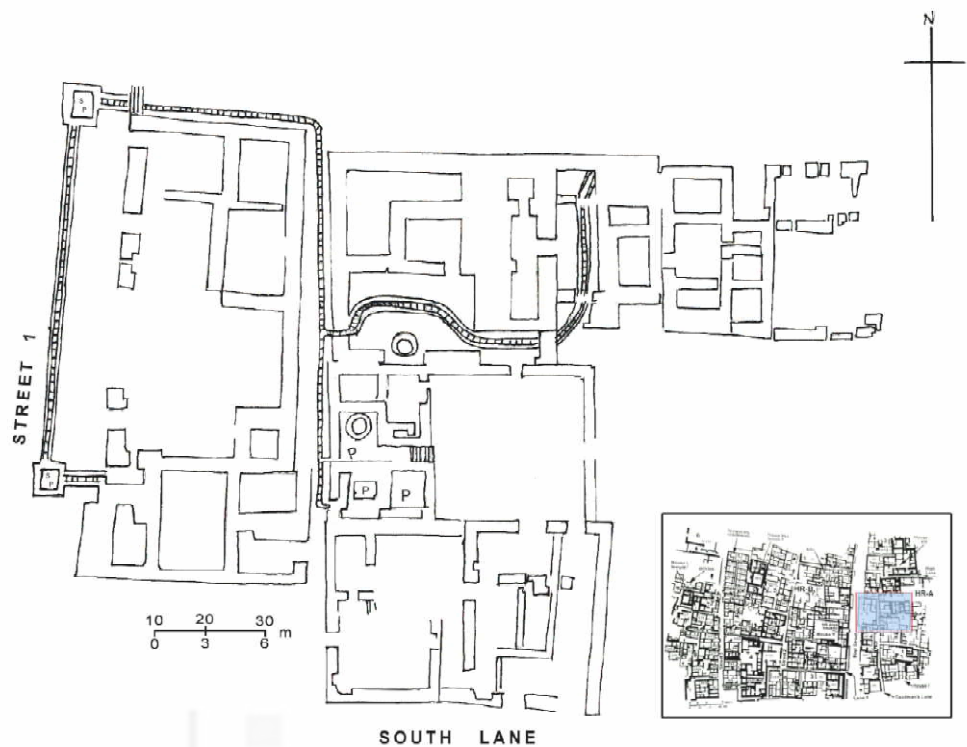


Figure 8.1 : Plan of Block 2 of HR-A Area, Mohenjodaro (After Wright, Rita, (2010) *The Ancient Indus: Urbanism, Economy and Society* (Cambridge: Cambridge University Press), Figure 9.7, p. 247).

Similarly, what were found within houses can highlight social differences. What could have been the nature of the impact of an urban society on artefacts? In view of the heterogeneous nature of urban society, we may expect a typological diversity of artefacts and the use of varied materials. Before we do this, we may try and understand theoretically how and why consumption patterns differed.

8.3 ANTHROPOLOGICAL PERSPECTIVES ON CONSUMPTION

Even if in some cases equivocal, we may also expect artefacts to reflect differences in status. From ethnographic evidence, we know that goods termed as wealth or elite goods had a social, not a utilitarian or exchange value. These goods are transferred between people in transactions that are not seen as directly 'economic' in nature. Thus, such goods are not directly exchangeable with utilitarian goods. Anthropologists have found that when wealth goods come into an individual's hands, they cannot be exchanged for consumable subsistence goods. Elizabeth Brumfiel (1987: 116) notes that conversion of elite into utilitarian goods does occur but only in a market situation. Wealth goods can be produced by specialists who were either attached to elites or were independent. In the case of the former, production was sponsored by the elite. In the case of the latter, we may imagine that social norms and restrictions would have prevented generalised consumption of these goods. Wealth or prestige goods could also be transferred from subordinates to superiors through tribute transactions.

What were also clear are the uses to which such goods are put. Brumfiel (1987) writes that these are used by the elite as status markers, in exchanges with other elites and to reward loyal subordinates and personnel working for the elite. They could be used to reward clients, attract allies and to solicit favours from one's superiors. They may also be given as offerings to religious institutions.

or stratified societies. Clark and Parry (1990: 293) termed these goods as ‘hypertrophic goods’ that were produced by attached craft specialists. Hypertrophy involved the conversion of necessities into luxuries; that while techniques and forms of such objects were known, the elaborations of form and the amount of labour expended in their production were what characterised these goods. In general, there may be ways to delineate these goods. Archaeologically, these goods may be identified not only through elaborations of form, but through the use of exotic materials, or complicated techniques or through the imitation of these luxuries in more commonly available raw materials. (However, sometimes, it may not be so simple as objects made out of commonly available materials and utilitarian in function could also be termed as valuables). Often, production centres of such goods may be restricted, as also find spots or contexts within which finished goods were found.

For an archaeologist, there are clearly other problems, such as dealing with valuables made out of perishable materials. Cloth, for example, in many societies was material that was often transferred between elites and used as valuables. However, often, archaeologically, cloth does not survive preventing the archaeologist from ascertaining its role in ancient transactions.

While elite goods or valuables were a distinct category among produced artefacts, there was clearly also production geared towards utilitarian purposes. Thus, for example, there would be pottery production or the manufacturing of stone tools. Even here, however, certain vessels that formed a small percentage of the entire ceramic assemblage such as the profusely painted Harappan pots or the reserved slipped wares were probably used by few households.

Differential consumption of elite or special-purpose objects is assumed, but how does it translate archaeologically in the Harappan context? The rarity of such materials at smaller sites is easier to understand. Moreover, findspots at such sites very often show concentration of such artefacts. For example, S.R. Rao could, at Lothal, try to identify a structure in the lower town as a merchant’s house. Similarly, R.S. Bisht in the case of Banawali identified a merchant’s house and the house of a ‘jewellery dealer’ on the basis of artefacts found within the structures. The largest structure still standing on Mound I at Chanhudaro, belonging to the Harappa II occupation, revealed not only steatite seals, but also varied faience beads, and an etched carnelian bead among other artefacts.

In larger sites such as Mohenjodaro and Harappa, distinctions as could be made for the Chanhudaro or Banawali structure are not easy to make. Spatially small structures that may suggest the residence of an ordinary occupant of the city bring to light a number of valuable artefacts. For example, House XII in Block 2, in Section B of HR Area revealed a number of copper artefacts such as buttons, necklace spacers and terminals, antimony rods and a blow-pipe as well as gold beads. A medium-sized structure, measuring 15 × 12.4 m – House LV in Block 7, in HR, Section B revealed a bronze statue of the dancing girl, a copper elephant statuette and a copper spoon. Large structures on the other hand often reveal a singular lack of significant associated material. House XVIII, Block 4, HR Section B, revealed an unexceptional material assemblage, for its size. Find spots of elite objects also rarely correlate significantly with so-called elite areas. Artefacts of great rarity in the Harappan culture, such as faience miniature jars, are not only found in large structures but also in small ones. Find spots of etched carnelian beads are, however, interesting. Out of 8 such beads found in Marshall’s and Mackay’s excavations at Mohenjodaro, 2 were found from the Citadel Area and 2

¹ In this technique of decorating beads, a chemical solution is applied in a design on a bead and fried to permanently fix the design on the bead’s surface.

from a hoard context. Out of 4 jewellery hoards, 3 were found from the northern or DK Area of the site. Seals, used for administrative and exchange purposes, are found in all types and sizes of structures.

However, sometimes a concentration of artefacts within a single structure does suggest a special nature to that building. For example, House I in HR Area covers an area of 675 square metres and contained over 600 artefacts, 98% of which have been estimated to be in the elite category. What is also interesting is that as many as 15 seals with the unicorn motif were found within this one building from its various rooms and courtyard.

As far as valuables are concerned, find spots do not only correlate with urban centres. Special-purpose objects may be found at smaller centres too. This is not a pattern unique to the Harappan case. At supposedly rural sites in Mesopotamia, ancient Turkey and Iran, the presence of such goods has been attributed to the existence of part-time specialists, by the presence of elite consumers in small settlements, and as ritual offerings made to shrines as noted by Robert Adams (1981: 78) This is particularly valid for the Harappan context. The distinction between urban and rural is not one of stark dichotomy for the period with which we are dealing. Settlements that on the basis of size would normally have been characterized as villages do not appear to have been rural if we look at the artefactual assemblage. Allahdino in southern Sind is a good example. With a size of about 2 ha, the site's assemblage includes a hoard of ornaments of gold and silver. There is also evidence of production (metallurgy and shell working). There are also amenities provided such as drainage channels and wells. Mitathal in Haryana also does not give much material evidence for social or occupational differentiation, but the physical layout of the settlement with its division into two mounded areas with a gap of nearly 20 m as noted by Suraj Bhan resembles that of much larger sites such as Mohenjodaro. Similarly, the characteristic of villages to be self-sufficient is also belied by small Harappan settlements. Nageshwar, which by size would fit into the category of a village, was clearly not self-sufficient, but was a site whose production of shell objects was geared almost entirely for non-local consumers.

8.4 SPECIALISATION AND SPECIALISTS

Apart from uses of artifacts, whether elite or utilitarian, the issue of production also arises and more so, the concept of specialisation. We have already seen that there are categories and types of specialisation, be it full-time or part-time, independent or attached, regional or site. Assumptions are often made that luxuries or elite objects were produced by attached specialists while utilitarian goods were the work of independent crafters. However, this kind of division was not always as clear-cut as can be seen ethnographically by crafters who made both categories of objects.

There seems to be a significant correlation between full-time specialisation and urbanism. Full-time specialisation is essentially maximizing behaviour where production is geared to quantum of output and is aided by a considerable measure of sub-specialisation of tasks. We may question if the production of elite goods could be interpreted in terms of aiming at profits. Such goods catered to a specific demand group and by their nature were restricted in function. Production too was restricted. In the Harappan case, valuables such as etched carnelian beads and long barrel-cylinder carnelian beads were not even produced at the major urban centres but at smaller centres oriented to craft production. Yet, at the same time, it is in urban centres that a significant component of economic activity was devoted to craft production. And if there was any production in ancient times approaching the level of full-time work, it could only have been achieved in an urban setting. Sites such as Mohenjodaro reveal the practice of not just one or two

crafts but of numerous crafts in conjunction. This economic differentiation we realise was a feature of true urban settlements.

There are clearly specialists in crafts in the Harappan case, but again whether they were full-time specialists or attached to the elite is not so evident. Exact loci of craft production indicators do not coincide significantly with assumed special-purpose areas such as the citadel area at Mohenjodaro. On the other hand, direct supervision of production is clearer at sites like Chanhudaro and Lothal, which were probably set up for craft production and transport of raw materials.

8.5 BURIAL PRACTICES

Unlike other Bronze Age cultures such as Egypt, Mesopotamia or China, the Harappan does not exhibit social differences through burials and grave goods. Most bodies were laid out lengthwise in pits with a few pots usually arranged near the head and also near the feet and sometimes under the body. The grave pit was usually wider near the head due to the majority of pots kept there. At Harappa, pots varied from 2 to 40 with an average of 15-20. Occasionally, brick-lined pits or wooden coffins were used for the bodies. A burial excavated by Mortimer Wheeler was a coffin-burial of a woman. The coffin was highly decayed and within it, the body was placed, wrapped in a reed-shroud. 37 pots were placed within this burial and ornaments found with the body included a copper finger ring and 3 shell rings on the left side of the skull and shoulder (possibly earrings). Wheeler felt that the burial resembled burials found in ancient Mesopotamia (Wheeler, 1947: 87-88).

In general, in Harappan burials, personal ornaments are sometimes found with the bodies but there are hardly any other objects that were interred along with the dead. Jonathan Kenoyer (2000: 106) mentions truncated conical stone pendants found only with burials of adult women and hypothesizes that these may not have been objects symbolizing wealth and status, but rather were worn for protection or to define personal ritual status. Similarly, beads of carnelian, lapis and copper found near the pelvis or lower back of skeletons of men and women may also have been amuletic in nature, being worn next to the skin under their clothing. In a few cases, bronze mirrors have been found with female bodies. The major grave item was, however, pottery, in amounts varying from none to forty per grave. Wheeler also noted that some ceramic types were not found in the habitation areas and, thus, these may have been made only for burials. Rita Wright (2010: 265) has considered that the uniformity in the shape of pottery and the standardization of decorative motifs suggest that pots in several burials were made by the same potter. Numerous plates, as many as fifteen in one grave have been found and may have been used in burial rituals.

Interestingly, at Kalibangan (Sharma, 1999), three different types of burials were identified as having been practiced at the same time. The first is the usual extended one of laying the body out in a rectangular pit with pottery as grave goods. In the second, pot burials were placed in circular pits and in the third, large rectangular or oval deep pits contained a number of Harappan vessels with no skeletal remains. Both the second and third forms appear to have been symbolic in nature as no skeletal remains were found associated with them. All three burial forms were found in the same general area but the pot burials were separated from the extended burials. The burials in rectangular pits were also separated from the extended ones but occasionally were found associated. A.K. Sharma, who excavated the cemetery at Kalibangan also found that burials occurred in clusters and he felt that different groups were for separate clans or families. Interestingly, each cluster contained at least one rectangular pit burial along with the

majority which was extended forms. On the whole, out of 102 grave pits, 88 were of the extended type while 14 were of the rectangular pit type with no skeletal remains. At Kalibangan, the grave goods comprised pottery, shell bangles, beads, bone points and a copper mirror in a single case.

The number of vessels in individual burials varied widely. In the extended form at Kalibangan, the maximum number of vessels was 70. This burial of a male has been termed as a burial of an important man probably due to the number of pots as well as that the skeleton and pots were in a pit that was lined with mud-bricks and appears more like a chamber (Sharma, 1999: 65-67). (see **Figure 8.2**) The pots were in two groups, one with the painted pottery, placed to the north of the skeleton. The other group of vessels comprising mainly plates and lids and a few other pots were put into the pit first over which the body was placed in north-south direction with the head towards the north. Interestingly, this is not the maximum number of vessels in a burial at Kalibangan. One of the burials with no skeleton in a rectangular pit had over 78 vessels within it.



Figure 8.2 : A Burial from Kalibangan (Sharma, A. K., (1999) *The Departed Harappans of Kalibangan* (New Delhi: Sundeep Prakashan), Plate XX).

Apart from the male burial mentioned above with 70 vessels in it, there seems to be little difference in number or type of the accompaniments found in the burials at Kalibangan between those of a man or a woman. Both equally have ornaments like beads. Mark Kenoyer has written that only females wore shell bangles but a burial of a male at Kalibangan has shell bangle pieces in the grave. But for some reason not quite explained, copper mirrors were found only in female burials.

Paul Rissman (1988) also dealt with wealth in the public and private domains. He differentiated Harappan burials as elements of public display from hoards symbolizing private values. The two domains are quite separate as seen from the kinds of associated materials. Thus, gold, silver, copper, and semi-precious stones embodying wealth are almost never found in the physical manifestation of public rituals, that is, in burials. We may need to explain the lack of wealth in Harappan burial rituals as part of an ideology of not permanently putting out of circulation objects of wealth, unlike many contemporary and later Bronze Age societies. This is reinforced by Jonathan Kenoyer in his study of

the burials in the cemetery at Harappa where he notes the absence of elaborate ornaments of gold, silver and semi-precious stones, suggesting these were retained to be passed on to the next generation (Kenoyer, 2000: 106). Yet Rissman also finds a lack of evidence for elite monopolization of such categories of wealth. Hoards, for example, were found from every part of Mohenjodaro except for the citadel mound, apparently the locus of activities of an elite, public nature, where one would expect such objects of wealth.

8.6 IDEAS ABOUT ETHNICITY

We have already seen earlier that nucleation of population embodies the physical character of a city. Implicit in this is the necessity of evoking relationships between people not related by kinship. The deciphering of kinship relations or ethnicity from archaeological contexts has proved to be difficult. Jim Shaffer and Lichtenstein attempted to decipher ethnic groups in Early Harappan and Mature Harappan society. They adapted Roland Barth's idea of an ethnic group that differentiated itself from others on the basis of certain features. Shaffer and Lichtenstein (1989: 119) used material cultural traits to delineate such boundaries in the archaeological context, particularly through distinctive ceramic styles. This 'pots-as-people' approach has meant that for them the Mature Harappan symbolised the fusion of previously separate ethnic groups as of Bagor, Hakra and Kot Diji.

There may well have been different communities living within Harappan cities. However, the contention that, archaeologically, ethnic groups can be differentiated on the sole basis of ceramic types is highly dubious. A good example of the archaeological difficulties with ethnicity is the Old Assyrian trade with Anatolia. Apart from the archives of inscribed terracotta tablets at Kanesh, there is no other archaeological evidence of the existence of traders living at Kanesh; here, they appear to have lived in houses similar to local types and seem to have used local pottery. The above discussions have shown that there were social differences in Mature Harappan society. Lineage groupings would have continued in an urban context but the nucleation of population would have neutralised their earlier pre-eminence. As Shereen Ratnagar points out 'lineages may survive as localised communities, or functionally specialised groups, or as land-holding entities.'

In both Egypt and Mesopotamia community or kin labour was used for constructing the large monumental buildings such as pyramids and temples or palaces respectively. Written records attest to a ration system, which was developed to support such labour. We have no idea whether a similar system prevailed in the Harappan cities, as we have no such commensurate written documentation. But are there other ways in which we could look for such kin groups in Harappan society? Does the layout of Harappan houses suggest the presence of such kin groups? Do the blocks of housing separated from each other by lanes and streets, which are discernible in the plan of Mohenjodaro housing, suggest occupation by kin groups? Does a house such as House XXIII in Block 5 of HR Area with its five staircases leading to an upper storey suggest five related families living in close proximity?

Certain ideas remain contentious such as whether Harappan society was organised on the lines of the later caste society. Caste divisions arise from particular circumstances of birth as well as practices of livelihood that carry across generations. Archaeology can tell us little about birth. But longevity of occupations can be tested through archaeology. Kenoyer (1998: 152) has written that "potters would have been hereditary specialists living in the same location as their ancestors; pottery making would have been organised as a cottage industry involving men and women potters, with children as assistants." If we are dealing, in the Harappan period, with a situation of families and/or households practicing the same craft over several generations, as Kenoyer suggests, then we should

be finding over time (and through several layers) evidence for the same craft. However, there is one concrete example that suggests otherwise. This comes from the Moneer Area in the eastern part of the site of Mohenjodaro. In the excavations, steatite waste was found within the deposits that filled up the original structures, thus representing the most ancient craft practiced in this area. This craft was then followed by a large stoneware bangles-producing compound, which took over a large part of this area after the earlier inhabitants abandoned it. In turn, this was abandoned and followed by large depositions of stone waste resulting from several work areas in the vicinity, as well as some amount of shell waste. The pottery firing kilns represent the last craft practiced in this area as they can still be seen on the surface (Vidale, 1990: 304). This finding of evidence for several crafts in the same area belies the notion of longevity of one craft in one location and hence of crafters living over several generations within the same location.

It is often noted that homogeneous groups produce a strong and clear message that is spatially discernible, unlike in heterogeneous communities where such messages are 'cancelled' out due to their conflicting nature. Thus, in heterogeneous societies, we should be expecting a range of stylistic influences. Thus, it is interesting that even though we know there were considerable social differences in Harappan society, there is also a strong unifying thread running through it. This can be seen materially through several categories of artefacts such as a sturdy red pottery with distinctive black designs, steatite seals with motifs and a possible script, chert weights of a uniform shape, particular shapes and designs of beads (such as etched carnelian, the long barrel-cylinder carnelian and the micro steatite ones), certain types of bronze tools, a uniform ratio for the manufacture of bricks and so on. It is the presence of many of these items that have allowed for the identification of a site as Harappan. It is also these artefacts that have been seen as evidence for the unifying of a large region and as possible infrastructural elements provided by an early state.

That brings us to the socio-political organisation of the Harappans. There are conflicting interpretations of this. One theory, propounded by Walter Fairervis, is that the Harappan political organisation was in the form of chiefdoms, rather than a state. This was modified by J.M. Kenoyer (1997) who drew a parallel with the Early Historic republics in the Indian subcontinent, as well as with the organisation of city-states in Mesopotamia contemporary to the Harappan civilisation. He suggested that each major Harappan city (such as Mohenjodaro, Harappa, Dholavira, Ganweriwala and so forth) represented the centre of separate Harappan city-states. Kenoyer (1997: 69) suggested that the walled mounds at Mohenjodaro and Harappa were inhabited by competing political and socioeconomic classes. Hierarchy in Harappan society, to his mind, were evidenced through certain large buildings at both sites, and "ritual" objects, ornaments, weights and seals that were perhaps used by certain sections of society. The third theory is by Shereen Ratnagar (1991) who suggested that the Harappan region was perhaps under a single political entity, probably centred at Mohenjodaro. For this, she has put forward as arguments: 1) the uniformity of certain typical artefacts all over the Harappan region, such as uniform brick size and shape, pottery, chert blades, steatite seals, chert weights, and copper/bronze tools; 2) the evidence of planning in Harappan settlements; 3) sustained urbanism; and 4) stone statuary and monumental architecture on a large scale at Mohenjodaro. At the same time, she points out that it was probably an inchoate state where tribal elements still lingered, making the state and the civilisation eventually unstable.

8.7 SUMMARY

For archaeology, one of the most elusive aspects to deal with is society. This is because it can be sometimes difficult to figure out what certain kinds of material culture may

have meant in archaeological terms, without explanations that can come from written material of the time. This is one of the reasons that most textbooks on the Harappan civilisation rarely delve into social aspects. But as we have seen in this Unit, it is possible to study certain pieces of information and that even if we may end up with multiple ways of interpreting them it is still a useful exercise.

8.8 EXERCISES

- 1) How can status differentiation be understood on the basis of material evidence? Discuss.
- 2) Discuss the layout of Harappan houses. What do they suggest to us regarding social stratification?
- 3) What are the archaeological constraints on trying to assess the anthropological perspectives on consumption pattern of pre-historic cities?
- 4) State the archaeological evidences that suggest the presence of specialisation in non-agricultural production.
- 5) What is the correlation between full-time specialisation and urbanism? Explain in the context of the Harappan cities.
- 6) What information do the Harappan burials provide us regarding their beliefs and status differences?
- 7) What is Shaffer and Lichtenstein's "pots-as-people" approach? To what extent is it useful in identifying Harappans and other contemporary social groups? What could be other methods to suggest the presence of different ethnic groups in Harappan society?

UNIT 9 CASE STUDY OF A MAJOR URBAN CENTRE: MOHENJODARO *

Structure

- 9.1 Introduction
- 9.2 Layout
- 9.3 Public Architecture
- 9.4 Mohenjodaro Houses
- 9.5 Craft Working at Mohenjodaro
- 9.6 Summary
- 9.7 Exercises

9.1 INTRODUCTION

R.E.M. Wheeler (1976: 77) described his first visit to Mohenjodaro in 1944 as beginning with trepidation due to dacoits roaming in the vicinity.

‘Trees and paddy fields surrounded the nearby rest-house and enlarged the complication.’ His officer suggested they could sleep on the roof. ‘An hour later I [Wheeler] found that in fact a somewhat precarious flight of precarious steps provided some sort of approach to altitude and security. The scene round about, enclosed by closely-packed tamarisk and babul trees, was brilliantly moon-lit and completely theatrical as we all of us lay down closely on the flat roof. As I said good night to my little party I thought it sensible to omit any reference to the revolver which bulged one of my pockets, and we slept peacefully enough through a somewhat noisy but otherwise uninterrupted night... On the occasion of my first night at Mohenjo-daro on the rest-house roof, I recall how the slowly growing light of the pre-dawn dimly showed through the verdure as a distance of some two furlongs from our point of vantage, a tall mound crowned, as we discovered, by the considerable wreckage of a Buddhist shrine or stupa, perhaps of the second century AD, raised high upon the heaped remains of an earlier age.’

Wheeler was, however, not the first to visit or excavate Mohenjodaro. Superintendent Archaeologist D.R. Bhandarkar in 1911-12, was the first to visit the site which he mistakenly understood to be of recent construction due to the bricks found there. R.D. Banerji was the first to recognize the antiquity of Mohenjodaro in 1919-20, when he found a flint scraper at the site. He also correctly identified the date of the stupa as of the early centuries CE. The magnitude of Banerji’s discovery was, however, only realized when the finds of Mohenjodaro were found to be similar to those found by D.R. Sahnî from the site of Harappa far away to the north-east in the Punjab. In 1924, John Marshall, the Director General of the Archaeological Survey of India could announce to the world the discovery of the remains of an extensive new civilisation, a discovery that would considerably take back the antiquity of the subcontinent.

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John Marshall was the first professional archaeologist to head the Archaeological Survey of India, having excavated before in Crete and Turkey. Due to his personal interest in and commitment to the excavations at Taxila being undertaken at the same time, he deputed the American, E.J.H. Mackay, who had excavated at Mesopotamian sites like Kish and Jemdet Nasr, to work at Mohenjodaro from 1926-1931. The first three volumes recording the excavations at Mohenjodaro were brought out by John Marshall in 1931 and another two volumes on the further excavations by Mackay in 1938.

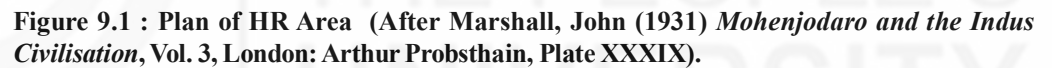
This Unit will be dealing with a case study of a Harappan city considered by many scholars as typical of the Harappan culture. This has been considered so for several reasons: one, because most of the distinctive features of Harappan urban centres have been found at this site; two, archaeologically this site is remarkably well preserved; and third, because this site has been examined both through exploration and excavation numerous times since the 1920s so that the cumulative information from this site is on an unprecedented level. Even though the archaeological culture is named after the site of Harappa since the first evidence came from that site, Mohenjodaro still remains the preeminent Harappan site due to the comprehensive evidence recovered from there. The purpose in this Unit will be to explore just why Mohenjodaro has been considered as a prime example of a Harappan urban centre.

9.2 LAYOUT

The ancient settlement was divided into two portions, one a smaller but more elevated one, called the Citadel, and the other, a larger but lower one, called the Lower Town (see **Figure 6.2** in Unit 6). This two-fold division became known as a classic Harappan pattern, but is actually best represented at Mohenjodaro. The early excavations under the general supervision of John Marshall were undertaken in several parts of the ancient settlement. The excavated areas came to be known after the names of the archaeologists responsible for the excavations in those particular sections. Thus, for example, SD was named after A.D. Siddiqui, DK was named after Kashinath Narayan Dikshit, VS after Madho Sarup Vats, HR after Harold Hargreaves and the Moneer Area after Q.M. Moneer.

Mohenjodaro is located in Sind on the right bank of the river Indus. The river was in the ancient past near enough to periodically damage the settlement due to the annual floods. Because of this, the ancient inhabitants had raised their settlement artificially making huge platforms of mud-brick, on which the structures were laid out. The platforms are clearly known from the western smaller mound, known as the Citadel as it was elevated above the plain. Some of the area of the Lower Town (the larger mound on the east) was also raised on similar platforms.

Photographs and plans of structures from the early excavations show a settlement that was densely built up, where houses stood close against each other with many sharing walls between them. This was because often a new house was built up against another using some of the former's walls for part of their own structure. Sometimes, it becomes difficult to figure out where one house ends and another begins. Seeing whether doors open onto what looks like an addition to the house can help. Sometimes the thickness of walls demarcates one house from another. The streets and lanes divided the Lower Town into what were labelled as 'Blocks' by the excavators within which separate houses were delineated. Criss-crossing narrow lanes separated these Blocks from each other (see **Figure 9.1**).



Even though the street pattern is often called one of ‘grid-plan’ for Mohenjodaro, in actuality many of the lanes twisted through the settlement allowing access between different parts (see **Figure 9.3**). This can be seen by the names given to certain lanes, such as ‘Crooked Lane’.

The household waste was channelled into these public drains through chutes, which could be a hole in the wall or a specially constructed sloping one of terracotta (**Figure 9.6**).



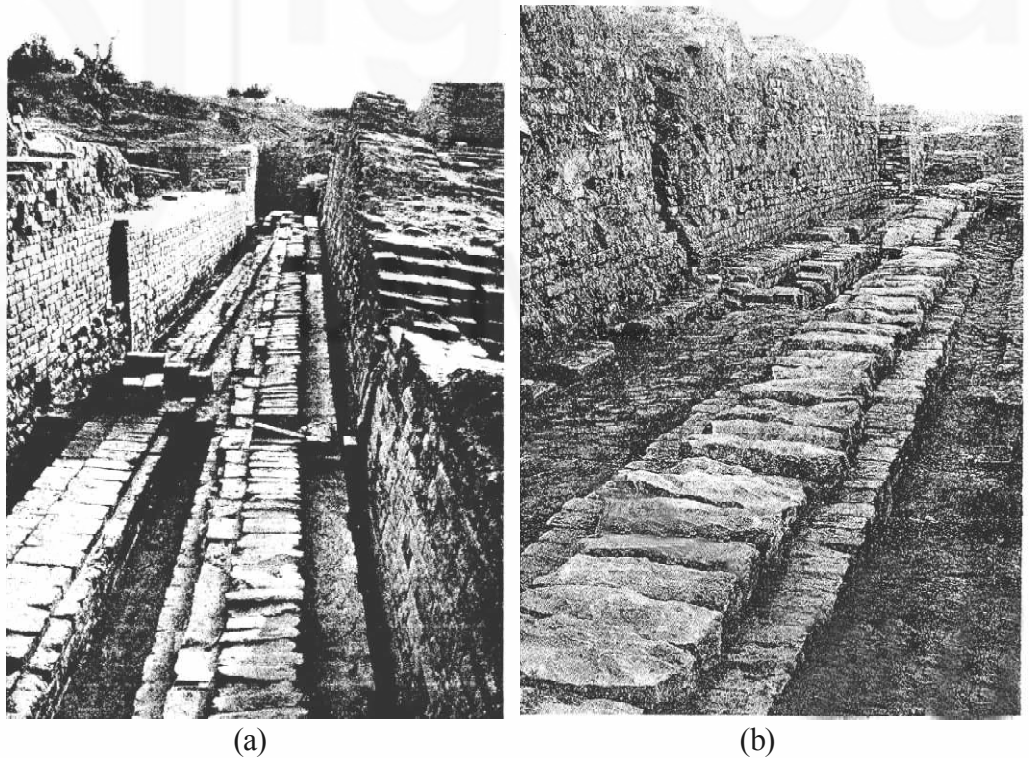
Figure 9.2 : South Lane, HR Area, Section A (After Marshall, John, *Mohenjodaro and the Indus Civilisation*, Vol. 3, London: Arthur Probsthain, 1931, Plate XLV).



Figure 9.3 : Streets, Lanes and Structures in DK Area, Mohenjodaro (After Mackay, E.J.H. (1937-38) *Further Excavations at Mohenjodaro, 1927-31*, Vol. II, Delhi: Archaeological Survey of India, Plate XVII).



Figure 9.4 : Drain Curving Around a Corner (After Marshall, John (1931) *Mohenjodaro and the Indus Civilisation*, London: Arthur Probsthain, Vol. III, Plate LXXVI).



(a)

(b)

Figure 9.5a : A Covered Drain (After Wheeler, Sir Mortimer, (1953) *The Indus Civilisation*, Cambridge: Cambridge University Press, Plate XIII).

Figure 9.5b : A Covered Drain in the Main Street of SD Area (After Marshall, John, (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 3, London: Arthur Probsthain, Plate LXXV d).

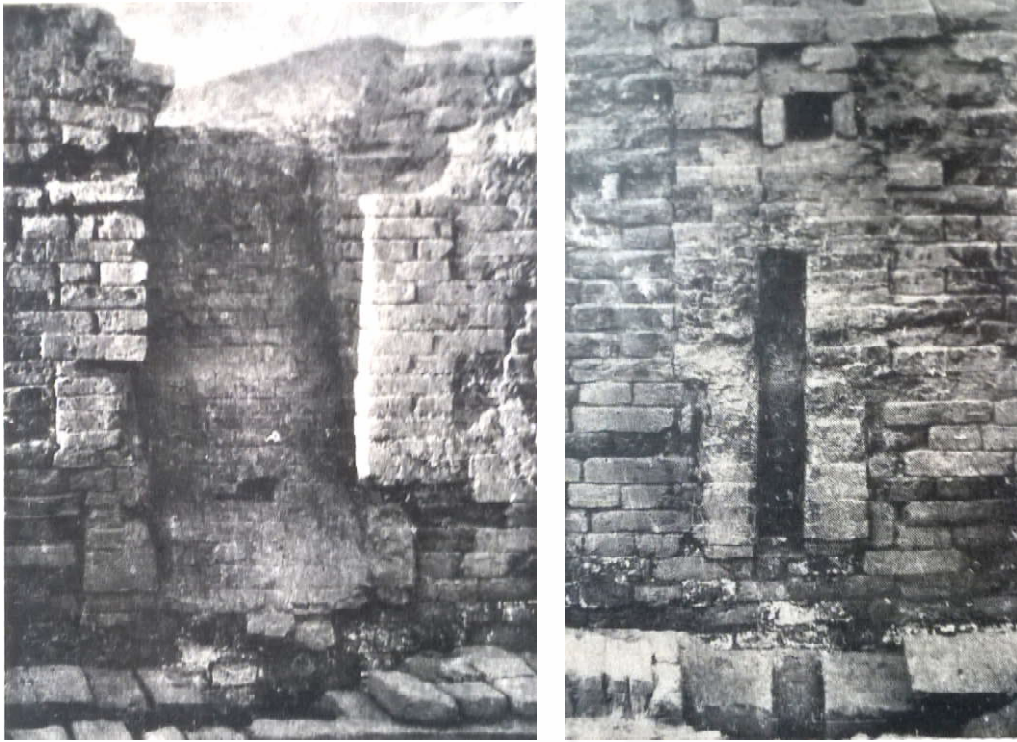


Figure 9.6 : House Drain Entering a Street Drain, Section C, DK Area (After Marshall, John (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 3, London: Arthur Probsthain, Plate LXXV a-b).

The common perception is that drinking water supply was a domestic concern with households constructing their own wells, often within their houses. While this is correct in the sense that the city's inhabitants would not have needed to go to the river for their water, there is in reality more information regarding the dispersal of wells within the city. Out of the 69 wells in the Lower Town, only 31 are in exclusively residential areas. Over 55% of the wells actually supply buildings that are multi-functional or have public/official functions. Very often, even when a well is within a house, it is situated usually within the front part of houses such that passersby can access it from the outside. This suggests that the use of wells was not necessarily exclusive, or limited to the inhabitants of a dwelling.

9.3 PUBLIC ARCHITECTURE

The buildings at Mohenjodaro can be divided into two broad categories: the public architecture and the domestic houses. Public architecture comprises those buildings that do not appear to have been living spaces due to their size and the internal arrangement of their rooms. While much of the architecture on the Citadel mound appears to have been of a specialised public nature (**Figure 9.7**), not all large public buildings were found only here. In some parts of the Lower Town, too, large buildings have been identified. However, it is striking that most of the large buildings, whether on the Citadel or Lower Town, are not easily identifiable as to their function.

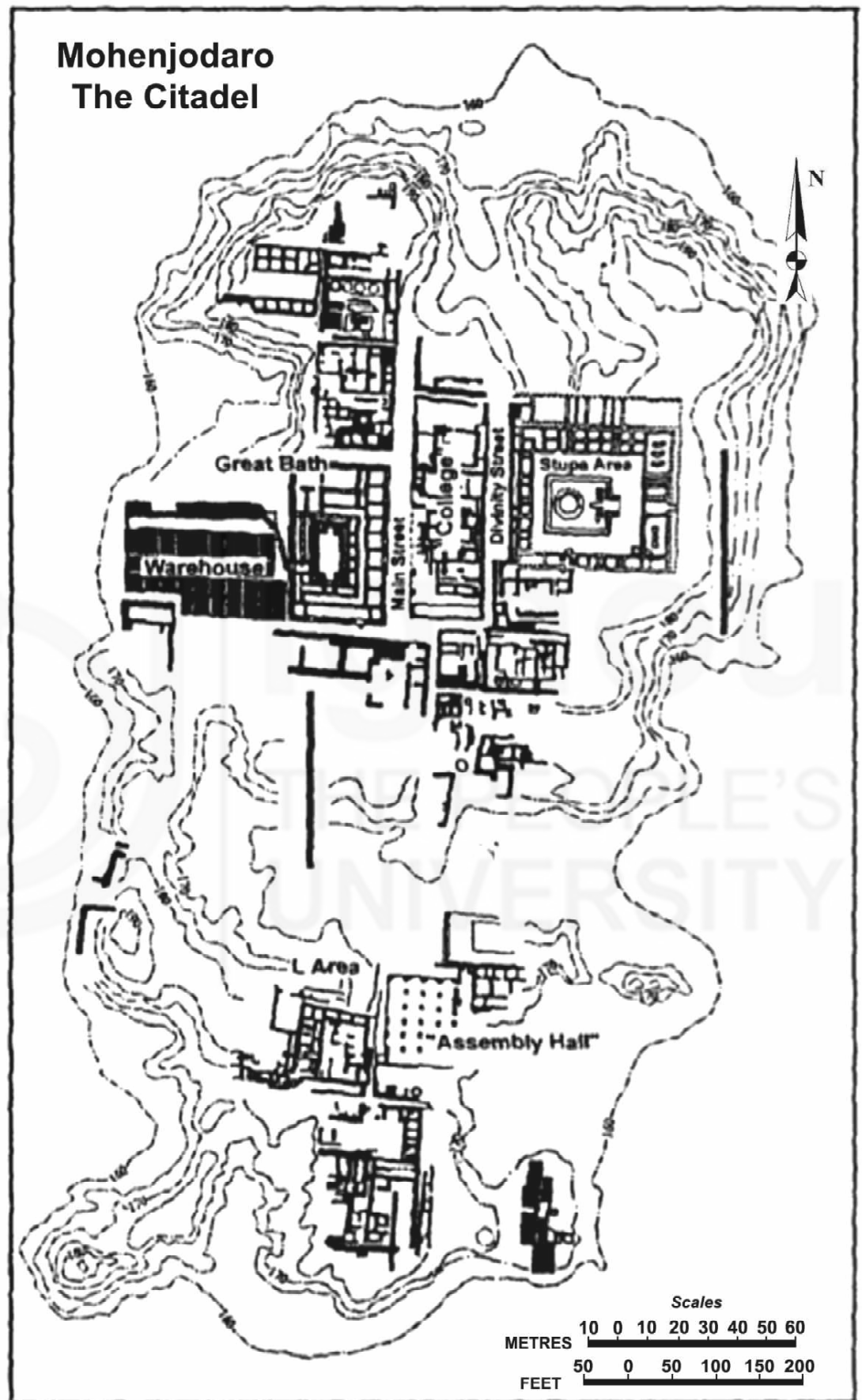


Figure 9.7 : Layout of the Citadel Mound (After Wheeler, R.E. Mortimer (1953) *The Indus Civilisation*, Cambridge: Cambridge University Press, Fig. 7).

Excavations on the Citadel were conducted in two broad areas, which were labelled as SD Area for the northern group and L Area for the southern group of buildings. The best example of public architecture on the Citadel mound in the northern group of buildings is the Great Bath, a well-built structure measuring 51.6×31.9 m and surrounded by colonnaded verandahs on all sides (see **Figure 9.8**). The tank itself would have had a capacity of 160 cubic meters. On two sides (northern and eastern), the galleries gave onto several other rooms. Within one of the rooms on the eastern side was a double-walled well. There was probably an upper storey as seen by a staircase in the northeastern corner of the building. The sunken part of the Bath itself was accessed through two sets of staircases on the opposing shorter ends. The floor of the Bath was paved with well-fitted bricks laid with gypsum mortar, making it waterproof. The Bath building was surrounded on all sides by lanes and broader streets and the large drain for the water on the western side exited into one of these lanes. This drain, constructed using the corbelling technique, was such that a human could walk through it.

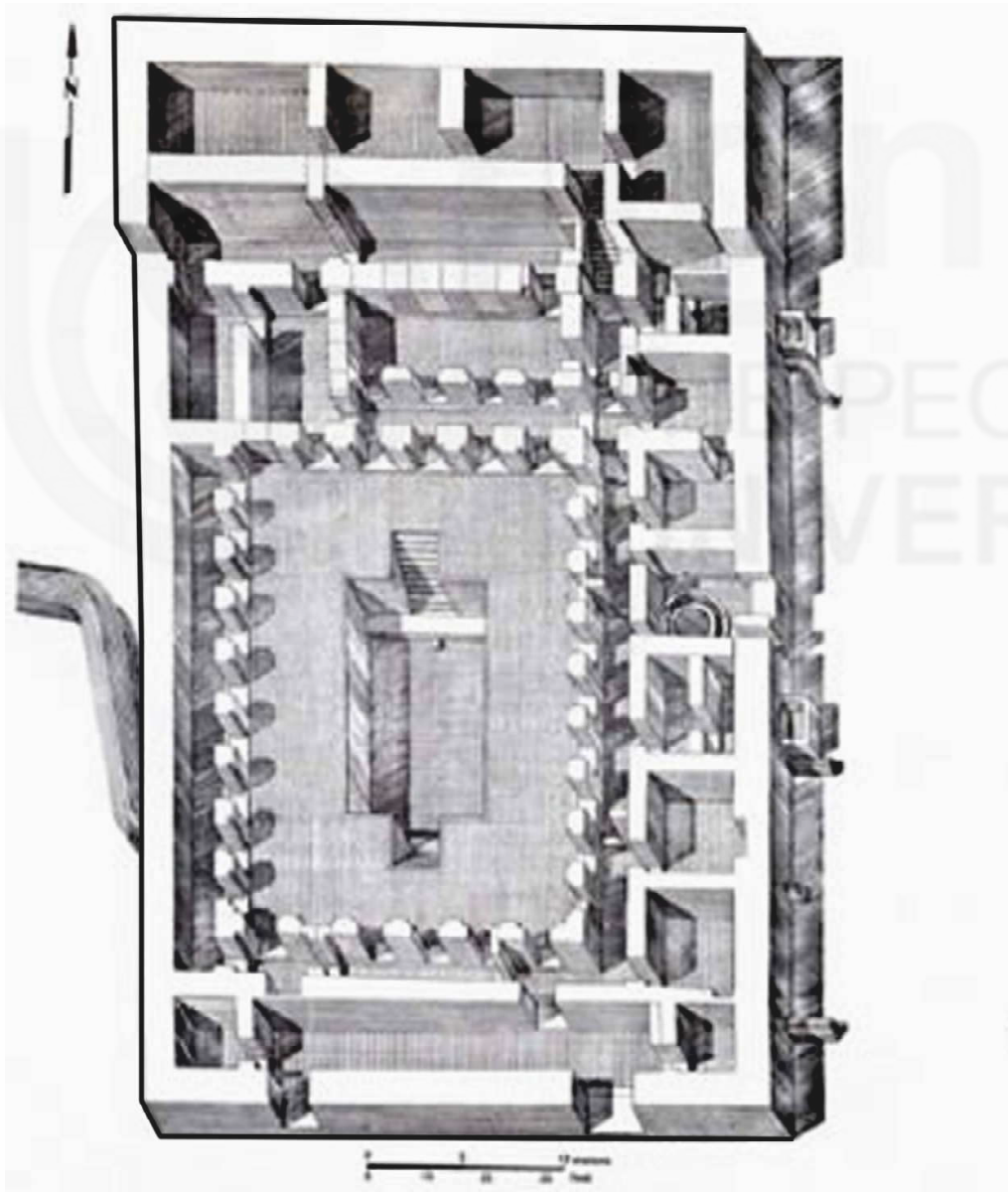


Figure 9.8 : The Great Bath (After Marshall, John (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 3, London: Arthur Probsthain, Plate VII).

To the north of the Bath and across a lane was a building with two rows of eight bathrooms, all with staircases connecting to a now no-longer standing upper storey. Near these paved bathrooms was an oval-shaped well that was placed within the building but which could be accessed from the outside too. In the excavation report, these were understood to be ablution areas for a select group of individuals thought of as priests. According to Ernest Mackay who excavated here, the priests lived in the rooms above and came down 'at stated hours to perform the prescribed washings. Possibly they were monks or ascetics who occupied this building, and they kept themselves apart from the world.' It has however been thought that this building was occupied later than the Great Bath.

Among the southern group of buildings on the Citadel, in L Area, was a large pillared hall, measuring 26.4×21.2 m. This was a covered hall, with the roof supported by 20 rectangular piers. It seems each row had 5 piers. Gypsum and mud-mortar was used to erect these piers. Each row of piers was resting on a footing or foundation wall that projected on either side of the piers.

It appears that the Lower Town also had some large buildings. Ernest Mackay labelled one of these in the DK Area in the northern part of Mohenjodaro as a palace (see **Figure 9.3**). This building was spread out from west to east and was bordered on the north by "Fore Lane" and on the south by "Crooked Lane". This was a building with at least two large open courts with the western court having an oven in one corner. Directly south of this court was a room with two kilns in it used to fire objects at a high temperature. This room connected at its southeastern end with a long open corridor (which had a drain along its length) that ran roughly from north to south through the entire building. The eastern court had an open area to its east in which possibly animals were stalled. Most of the palace building seems to have consisted of functional spaces and the only portion with rooms that may have been living spaces was to the northeast. The excavator has called these rooms as storerooms or servants' quarters. These rooms are in three rows with the northern two rows connected to each other, but not with the southern. The northern and the southern rows each connect with the outside through a door, which is unusual as normally there are never so many doors leading out of a house.

9.4 MOHENJODARO HOUSES

The urban nature of Mohenjodaro comes out clearly in the varied plans of houses that are a feature in the Lower Town. A curious block of what appear to be rooms (see **Figure 9.9**) that have been labeled as houses by John Marshall are similar in size to each other. These similar sized buildings in a double row were thought of as shops or as quarters for retainers for the large adjacent building (House XXX). These buildings consisted of a large room sometimes with one or two smaller rooms at the rear. Some of these buildings had small paved bathing floors within them. At the southern end there is a well that was probably commonly shared between them. This was found inside one of the buildings in the extreme southwest corner in a paved room on which several broken terracotta goblets were found. The well was evidently used by the double row of buildings and probably from the street as well. Between the double rows of buildings was a long narrow corridor but the buildings were evidently entered from the other sides, which looked onto Lane 7 and Street 3. However, the entrances to the eastern row of buildings is not very clear but must have been from the public space provided between these buildings and House XXX directly to the east. However, Marshall, in his excavation report of Mohenjodaro, made a point of describing and illustrating in three-dimensional fashion, two large houses in the Lower Town.

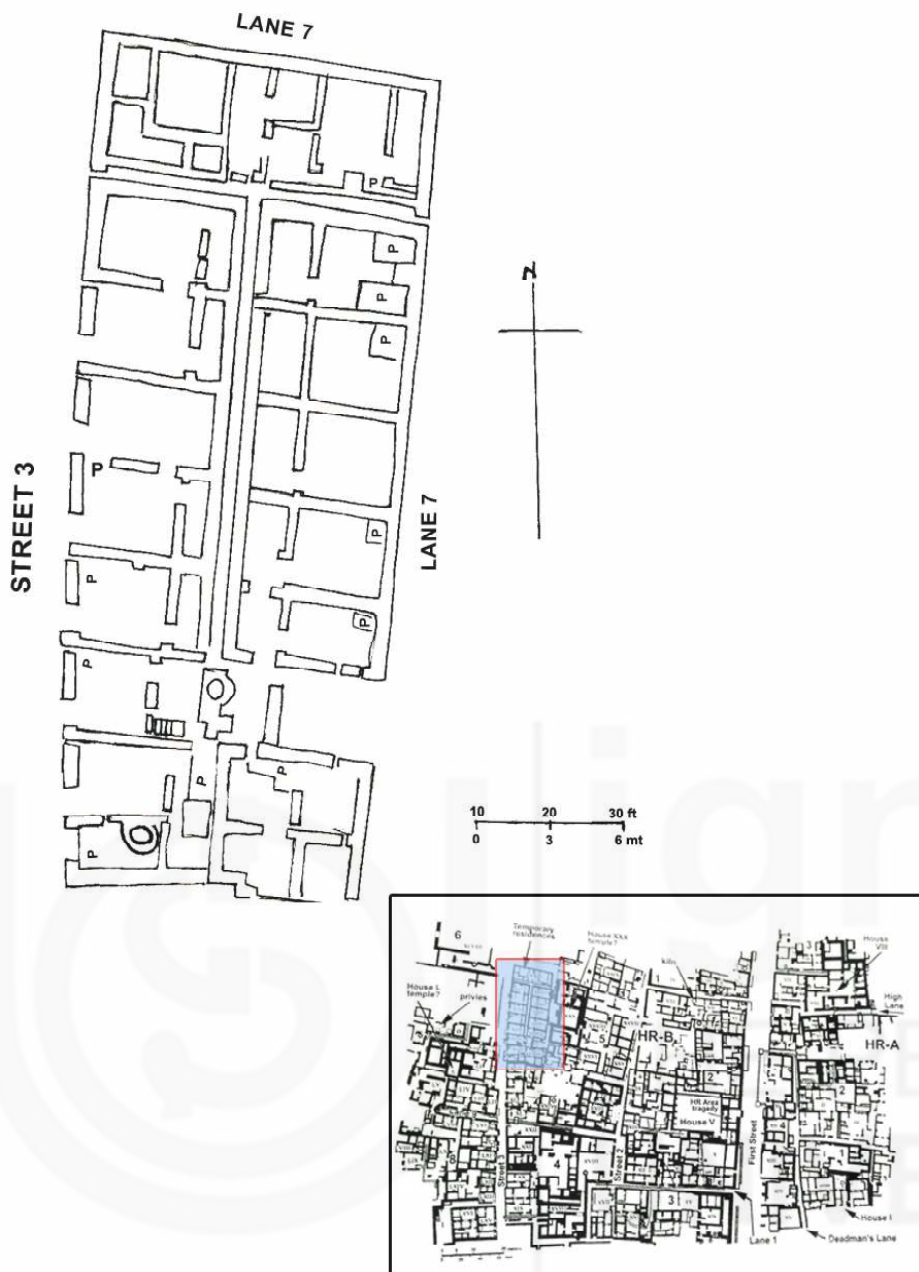


Figure 9.9 : House or Shops in HR-B Area (This is a line drawing of Houses XXXII-XXXVIII & XLIII-XLVII in HR-B area adjacent to House XXX).

House VIII, in HR Area, Section A, Block 3 (**Figure 9.10**), opened onto a lane that led off from a main thoroughfare, called as First Street. There was only one entrance that led into a small room which in turn led to several other rooms. The open courtyard was paved with brick and had a covered drain in it. Next to the entrance was a small paved room with a well in it, connected by an aperture with the bathroom next to it which was also paved. There are several rooms around the courtyard, the function of which are not immediately known but are proposed by the excavator. The small rooms on the east were suggested to have been ‘for menials’, though they could well also have been store-rooms. An open-fronted room on the northern side of the courtyard was thought to have been a kitchen. A completely separate room on the west accessed both from the entrance and from the courtyard through a zig-zag passage was hypothesized to be ‘a guest-chamber’. This room had a low ceiling with rafters of *deodar* and *sissoo* wood, burnt portions of which still remain. The living and sleeping rooms were thought

to be on the first floor reached by a staircase in the northern part of the house. Another staircase in the southern part allowed direct access from the upper area to the bathroom below. The upper area had at least one large room and passage on a solid base which can be seen as the projection to the north while the other rooms were probably built on the plan of the ground floor, around the courtyard. The roomed area of the house would have had a flat roof.

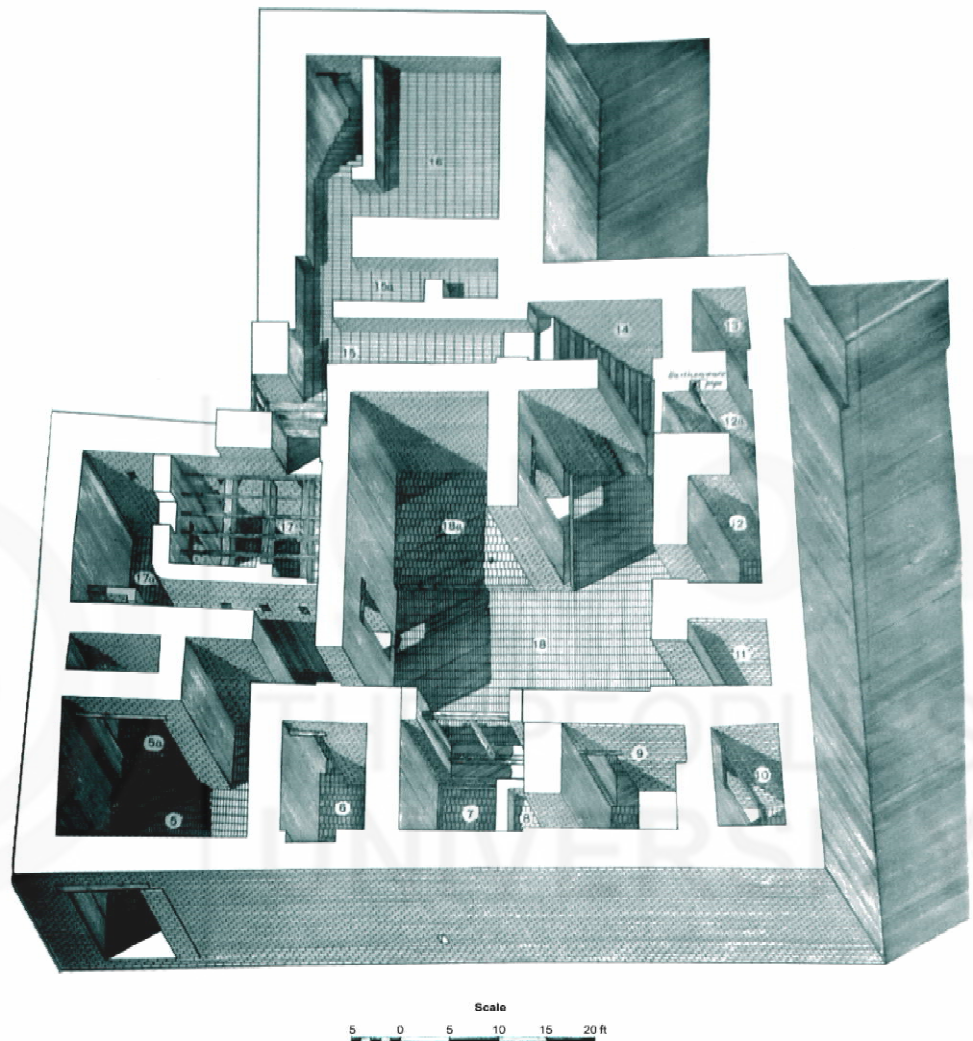


Figure 9.10 : House VIII, HR-A (After Marshall, John (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 1, London: Arthur Probsthain, Plate IV).

The other house, House XIII in VS Area (see **Figure 9.11**) was more elaborate and had four “fair-sized” courts, ten smaller rooms, three staircases, a “porter’s lodge” and a well-chamber in its ground plan. It fronted onto the main thoroughfare of Mohenjodaro, First Street, and unusually had three entrances, the central one which had the porter’s lodge. The left side of the house is slightly different in that the court and the long passageway leading to the well-room is paved with brick. There was a door in the well-room which was later blocked up. The small rooms on this side of the house were thought to have been for menials. This characterisation of the rooms appears arbitrary as similar small rooms on the other side of the house were called guest-chambers. Certain portions at the back of both houses described and illustrated by the excavator, had solid sub-structures, which may have acted as a plinth on which rooms were constructed. This may have been to deal with flood situations when one would have had to move for safety to an upper floor.

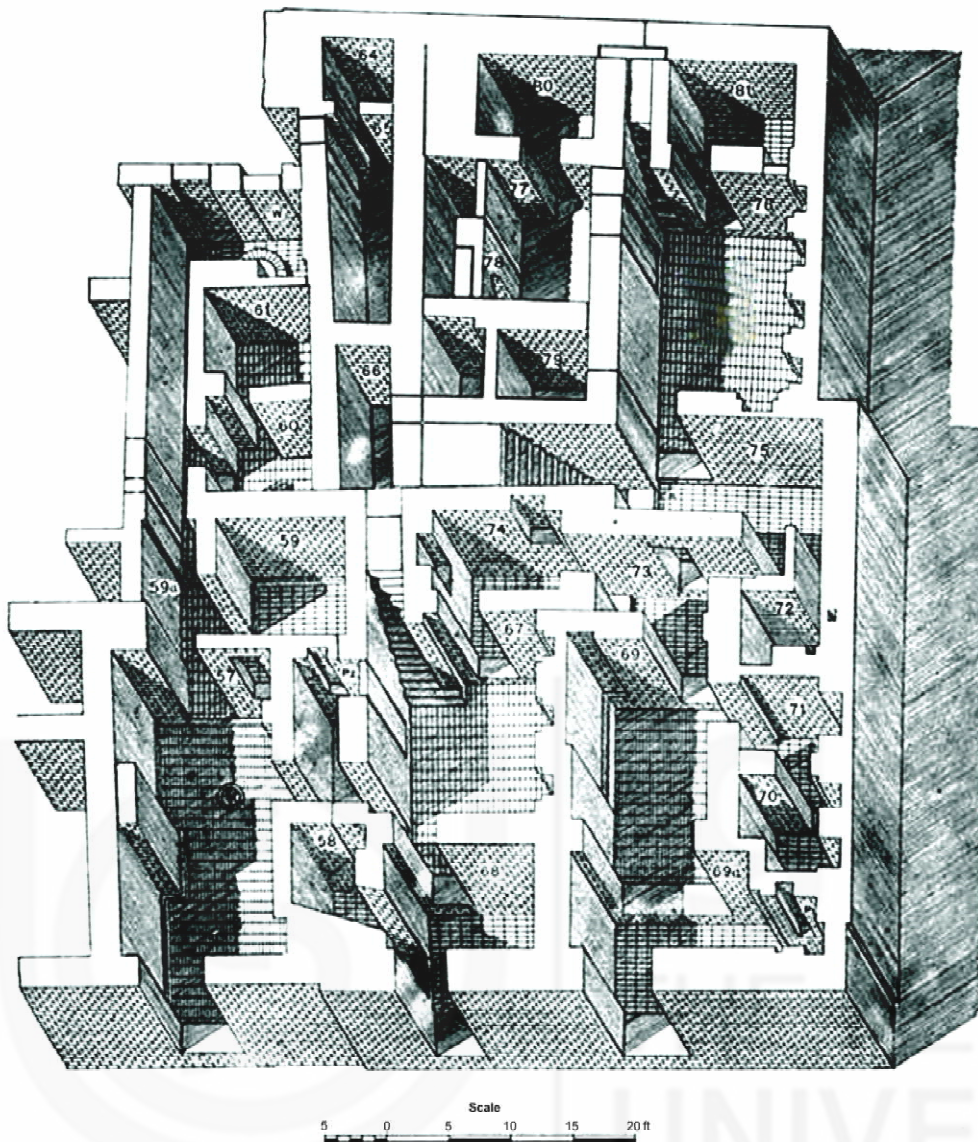


Figure 9.11 : House XIII, VS Area (After Marshall, John (1931) *Mohenjodaro and the Indus Civilisation*, Vol. 1, London: Arthur Probsthain, Plate VI).

Anna Sarcina who has worked in great detail on the private house at Mohenjodaro finds neither of these two houses as typical of the Mohenjodaro house. They are on the larger side and the distribution of rooms is more complex than in the average Mohenjodaro house. She has, in fact, delineated five “residential models” (**Figure 9.12**) which have been found in all the excavated parts of Mohenjodaro, though there are several houses that do not conform to any of her models. These models are differentiated on the basis of the placement of the courtyard and the internal arrangement of the rooms. The courtyard was always to the north or centre but never to the south. The most common patterns were what she called the yellow and the red models. In the yellow model, the courtyard was to the north, surrounded by rooms on all three sides. In the red models, the courtyard lay in one corner, with rooms on two sides. The courtyard was normally not directly accessible to a street or lane or only through one or more rooms. Even if the courtyard lay in a corner of the house adjoining a street, it was usually never accessed directly from the street.

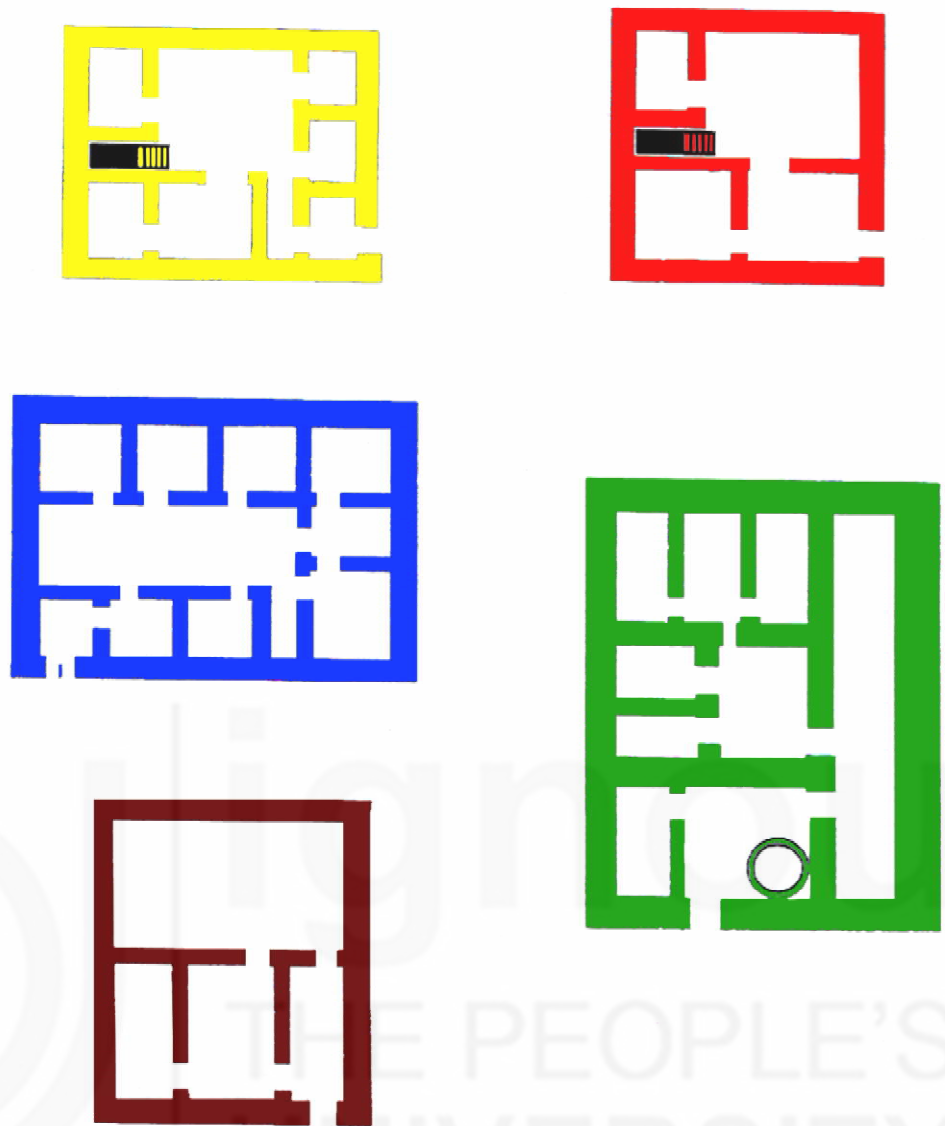


Figure 9.12 : Models of Mohenjodaro Houses (After Sarcina, Anna (1979) ‘The Private House at Mohenjodaro’, in M. Taddei (ed), *South Asian Archaeology* , 1977, Naples: Istituto Universitario Orientale, pp. 433-437).

22 houses out of a total of 183 that were studied by Sarcina are small in size with an area less than 80 sqm. She has pointed out that these should be seen as houses inhabited by small families rather than by people of lower status as these are built with the same care as larger houses. Thus, in Mohenjodaro at least, house construction methods do not vary and are not useful for suggesting status differences.

9.5 CRAFT WORKING AT MOHENJODARO

Craft production at Mohenjodaro is an aspect of its urban character. Production in an urban centre requires specialisation and we are also interested in the archaeological form that specialisation takes. Were specialised crafts located in a separate sector of the ancient city? Were different processes undertaken in separate areas? What was the relation between craft activities and political power?

The archaeological evidence for craft production comprises unfinished (or semi-finished) objects, pieces of raw material, tools, and waste. Where these are found may inform us as to the location of craft production, though there may be human activities and post-

depositional disturbances that may have impacted on the nature of the site which in turn may complicate our interpretations.

Excavations were conducted at different parts of the site (SD and L in the Citadel, in the Lower Town, DK-G in the north, DK-A, B and C towards the eastern and central portion, VS and HR towards the south as well as the Moneer area in the east), providing a representative picture, but it is also clear that only a small proportion of the entire site has been plumbed. Outlying areas have not been excavated, thus leaving out potential areas of craft activity, many of which usually take place on the peripheries of settlements. However, the excavation data was vastly amplified by an intensive surface exploration that was conducted by an Italian team. With information provided by the surface survey, we now know that the entire eastern and south-eastern portions of Mohenjodaro were craft areas. The Italian survey team declared this area as a 'craftsmen quarter' (Bondioli, Tosi and Vidale, 1984: 31).

If craft production is one among other urban occupations, the question then arises as to whether there is evidence for all crafts and what is the discernible pattern for those that were practised. At Mohenjodaro, going by craft indicators, stone bead making, stone blade making, weight production, seal cutting, pottery production, steatite and metal working were practised as well as rarer crafts like stoneware bangle production.

There are scattered craft indicators in nearly all the excavated areas:

- Lumps of unrefined copper, ashes and crucible fragments were found in the HR area; a rectangular paved pit containing copper ore and a small piece of lead was recovered in the DK-G sector. A coppersmith's blow-pipe was found in the HR area. But it is the DK-G sector that gives evidence of copper pieces ("melts") or ingots, castings kept for reuse, unfinished objects as well as a metal hoard. The surface survey, on the other hand, pointed out new copper working areas to the east of HR and between VS and Moneer site.
- The excavated data for stone bead making also indicates DK-G sector as a prominent area. There is also evidence of an unbored bead and a stone hone from SD area on the Citadel mound. But the surface survey proved exceptionally useful as the Moneer South East area gave good evidence for the preliminary flaking of stone beads as well as the manufacture of micro-drills.
- Evidence for shell working from the Citadel mound belongs largely to the late period, when possibly the buildings there had gone out of use. Other areas showing shell working indicators were VS, HR and the DK-G sector. The surface survey confirmed DK-G as an area of shell working with indicators found to the north of the excavations there.
- Faience production was identified from VS, DK-G as well as a locus south of DK-G, according to the surface survey.
- Seal cutting indicators were found from VS and HR areas and overwhelmingly from the DK-G area where tools, unfinished seals and wasters that included lumps, blocks and flakes that could be related to seal and steatite bead making.
- Weight making in the form of unfinished specimens was attested from the VS, DK-B and DK-G areas.

What may we understand from the above picture? Craft working is largely dispersed and more or less confined to the Lower Town. Within the Lower Town, too, there are areas that seem to show more evidence for craft than others. Though there is evidence of kilns from the HR area, there are not too many other craft indicators. The DK-G sector in the north definitely seems to have been a significant craft working area, and so also the areas east and south of the Moneer site in the eastern part of Mohenjodaro. Sometimes, we find that the same structure revealed the working of different crafts. There are several examples in the DK-G Area: from Block 1, House VI in Rooms 52

and 64 were found evidence for metal and faience working; from Block 7, House III, Rooms 44 and 52, shell and metal working respectively; from Block 7, House I, Rooms 15 and 19, beads and shell working respectively; from Block 9, House VIII, Rooms 15 and 16, seal making and metal working respectively; from Block 4, Rooms 12 and 15, shell and metal; and Block 18, Rooms 17 and 7, beads and shell working. Three separate indicators for metal working were found from Block 12A, House I, Room 15 and two indicators for bead making from Block 6A, Rooms 38 and 41.

There is more. Though the Moneer South East area gave, in the surface survey, evidence for the manufacture of chert micro-drills, this area did not show evidence for drilling of beads. It is, in fact, the DK-G sector where it seems beads were drilled, going by the number of unbored specimens as well as rejects, or beads broken during drilling. Unpolished beads too were found here. The Moneer South East area gives evidence for the preliminary chipping and flaking of stone to make not only beads, but also drills and weights. Perhaps roughly flaked beads were sent to the DK-G area for polishing and drilling. Thus, there is at Mohenjodaro, some evidence for localization of craft processes. This can be seen with shell working too where a small low mound northeast of Moneer Area revealed the preliminary stage of perforation and chipping of the top portion of *T. pyrum* (or *sankh*) shell.

That chert micro-drill manufacture, preliminary flaking of beads and production of weights took place at the same locus in the Moneer South East area is understandable. Similar flaking technologies were utilized in all three cases. It also indicates a tendency for craftsmen to concentrate on the working of a material even if the end products were different.

Craft working indicators are found in several houses in the DK-G area. However, not every house revealed craft indicators. Thus, the sector as a whole cannot be considered as a separate craft area for Mohenjodaro. Craft activities may be one among other urban occupations being performed in this part of Mohenjodaro. The same situation holds for the HR and VS areas too. Was the Moneer area a craft producing area of Mohenjodaro? K.N. Puri had mentioned in his note on the excavations in the Moneer area that 'the discovery of a good number of beads, 16 small weights, a pair of small copper scale-pans together with a fulcrum rod made in a room directly accessible from the lane suggests that this was a lapidary shop.' The proposition may have some validity if seen together with the considerable evidence for craft working obtained from the Surface Exploration Project undertaken by the Italian team of archaeologists.

Can one evaluate as to who consumed the products of Mohenjodaro's crafters? Were artefacts produced here for local consumption only or were they also transported out? Distinctive artefacts like the copper tablets that have been found only at Mohenjodaro were probably made here, but the evidence of craft production for several other crafts is meagre as compared to the number of finished products. Many manufactured goods may have come into Mohenjodaro from other settlements.

Thus, for most of the crafts that we are considering, we may have to accept that Mohenjodaro was primarily a consuming settlement. In fact, Mohenjodaro does not give evidence for the production of certain artefact-types, like steatite micro-beads, which were probably made at Chanhudaro (and perhaps also Lothal). Similarly evidence for the production of long barrel-cylinder carnelian beads has only been attested from Chanhudaro. This may be one more indicator that finding these beads in the assemblage of Mohenjodaro meant that they must have been brought into the settlement.

9.6 SUMMARY

The urban character of Mohenjodaro thus rests on several features and is incontestable. On the basis of size, planned layout, provision of civic amenities such as drains, roads and wells, differentiation not only between public and residential structures but also between different residential structures, the variety and quantity of the artefactual assemblage, the presence of luxury goods and exotic raw materials, and the evidence for occupational differentiation all lead us to suggest that Mohenjodaro was a significant urban centre. Not every Harappan city was a mirror image of Mohenjodaro, as in fact, the large urban centres all show interesting differences. The distinctiveness of Mohenjodaro lies in the features mentioned above as well as its central geographical location within the entire Harappan domain.

9.7 EXERCISES

- 1) 'The city of Mohenjodaro represents is considered as typical of the Harappan culture.' Comment.
- 2) Discuss the main features of the city of Mohenjodaro.
- 3) What was the layout of the city of Mohenjodaro?
- 4) How have archaeologists differentiated between public and domestic architecture at Mohenjodaro?
- 5) Discuss some of the major buildings on the Citadel Mound. What is suggested of the nature of these buildings?
- 6) Discuss the layout and chief characteristics of the lower town?
- 7) What kind of evidence do we get of Harappan society from the houses at Mohenjodaro?
- 8) Compare and contrast the layout of House VIII in HR area and House XIII in VS area.
- 9) Comment on Anna Sarcina's models of Mohenjodaro houses. What do they suggest?
- 10) List the craft indicators excavated at Mohenjodaro. What pattern of craft production emerges out of these indicators?

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