

CHAPTER – III

HARAPPAN CIVILIZATION

3.1 INTRODUCTION

Harappan Archaeological Research dates back to the year 1922 with the advent of the finding of Mohen-jo-Daro, the ‘mound of dead’, in Sindh. Because of its extraordinary urban character, the discovery raised immense interest world-over. Since then, the archaeology of the Harappan Civilization has been growing, both in terms of geographic factors and cultural dynamics. By the time archaeologists found that the Indus Civilization is no longer confined to the Indus Valley, archaeologists have redesignated it as ‘Harappan Culture’ or ‘Harappan Civilization’ after the type site namely Harappa (The naming of related sites after the one that was first discovered is a common convention in Archaeology.) discovered in 1921. From 1950 onwards, this study has been occupying paramount place in the archaeology of South Asia and the last twenty five years, in particular, have witnessed excavation of the scores of Harappan sites, which have brought to light the most exciting results. Intensive explorations and excavations of several sites of entire Harappan domain (known) have caused a tremendous knowledge explosion, facilitating a far better understanding of the fundamentals of its “origin”, its efflorescence and of its ultimate “end”. Archaeologists from India and Pakistan, either independently or in collaboration with western scholars, have launched multidisciplinary investigations to reconstruct the spatio-temporal framework of this civilization. The radiocarbon determinations and the evidence of the early food producing cultures in the entire Harappan domain have put this civilization in the perspective of indigenous origins.

3.2 TERMINOLOGIES

Before going into the details, it is necessary here to define some of the terms, which are used in this and next (fourth) chapter. The name Indus Valley Civilization/Harappan Culture signifies not only the sites limited to the Indus Valley proper but also to the similar kind of sites found in other parts of India, Pakistan and Afghanistan. Pre-Harappan is the culture, preceding the Harappans but different from it. Early/Pre-Urban Harappan means the earlier phase of the Harappan culture, which

paved the base stone for urban phase. Mature/Urban Harappan denotes the urban phase (prosperous period) of the Harappan culture. Late/Post-Urban Harappan represents the late period of the Harappan culture, which marks decline and de-urbanization. Regional Chalcolithic cultures/traditions indicate the cultures other than the Harappans, which have their own identity and existed separately or co-existed with the Harappans in Gujarat during various phases of the above mentioned periods. The term period is defined as a bracket or interval, for example — a particular cultural event that endured for 900 years between 3500-2600 B.C.

Cultural transformation or change is a continuous process with a varying degree of intensity. It involves factors like human adjustments to prevailing environmental and social condition of the region. Cultural change is also multi-directional and the degree and nature of change vary in time and space. Precisely, therefore, the beginning, growth and decline of the Harappan culture like other cultures, have been categorized into separate phases termed differently by various scholars (Rao 1963; Mughal 1970; Possehl 1977, 1980, 1984, 1993). Whatever the case or term may be; these terms indicate socio-cultural and technological development in various stages of Harappan development. Although Mature/Urban Harappan phase is well defined through type fossils and several other settlement features, but Pre Urban Harappan and Post Urban Harappan phases are not so clearly defined. There's definite lack of consistency in the material relics from different sites of both Pre-Harappan and Post Urban Harappan phases. Moreover, it must be noted here that these Pre Harappan, Pre-Urban Harappan, Mature/Urban Harappan and Late/Post Urban Harappan divisions are not necessarily time brackets applicable throughout the entire Harappan region. As regard to the chronology of the Harappan Civilization, it may be useful to take the cultural sequence as revealed by recent excavations on different sites supported by number of radiocarbon (C^{14}) dating samples. Beginning with the earliest level at the bottom of the sequence, we have:

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|-----------------------|----------------|
| Post Urban Harappan | 1900-1400 B.C. |
| Mature/Urban Harappan | 2600-1900 B.C. |
| Pre/Early Harappan | 3500-2600 B.C. |

After the partition of British India, massive amount of archaeological explorations and additional excavations in the present Indian frontiers confirmed numerous Indus Valley Civilization sites. According to Possehl (2002) and Setter and Korisettar (2002), relentless survey conducted both in India and Pakistan during the last seventy odd years has thrown up a list of not less than 1,022 Mature-Harappan sites. Of these, 406 sites are located in Pakistan while 616 are in India. About 96 of these sites have been excavated so far: 41 in Pakistan and 55 in India. Research on Indus Civilization in India, changed the position regarding the extent, culture-contents, regional variations, etc. In spite of the fact, that considerable regional variations within the entire Harappan domain have been discovered, the following diagnostic traits of the culture can be postulated, which give it a unified character throughout, perhaps with central authority. Some of these traits are--

1. Planned cities and towns with basic layout of citadel and lower town, Dholavira being the exceptional as it has middle town also. Use of the burnt bricks in pre-Harappan phase is 1:2:3, whereas, in mature phase it is 1:2:4.
2. Red Ware pottery painted with black designs, well fired, paintings consisting of floral and geometric patterns and shapes including dish-on-stand, "S" shaped jars, beakers, goblets, perforated jars etc.,
3. Beads of Faience and steatite and long tubular beads of carnelian,
4. Terracotta Mother Goddess (?),
5. Triangular Terracotta cakes and Mushtikas,
6. Terracotta and Faience Bangles,
7. Rohri chert blades,
8. Seals and Sealings,
9. Writing system/Inscriptions,
10. Chert and agate weights and
11. Copper and Bronze objects.

3.3 GEOGRAPHY AND SALIENT FEATURES OF THE HARAPPAN CIVILIZATION

One of the important aspects of the Harappan civilization is its apparent mobility and proliferation over a large area consisting of number of ecozones with diverse environmental variables and economic incentives. Number of sources has affirmed that environment of the regions covered by the peoples of Harappan civilization during the period was quite different from today. There may have been little climatic change between then and now, but the environment, and hence the ecology, of this vast region is none less the different (Possehl 1999). The remains of the Harappan civilization, dating from 2600 B.C. to 2000-1800 B.C., include cities and villages, craft centers, river stations, camp sites, fortified palaces and probable ports, spread over a vast geographic area of 1.25 million Square Kilometers. Extreme cardinal limits of this civilization were Sutkagendor (Makran) in the west, Alamgirpur (Uttar Pradesh) in the east, Manda (Jammu and Kashmir) in the North and Daimabad in South Gujarat. But, when we talk of the scenario of Indian Subcontinent (entire Harappan culture domain) we will see that Shortughai on the left bank of Oxus, in Badakhshan, is the extreme northern limit. Whereas, the sites of this civilization are found in Sind, Makran, Baluchistan, Punjab, Haryana, north Rajasthan, Uttar Pradesh, Gujarat, Maharashtra and Badakhshan, in the modern states of Pakistan, India and Afghanistan.

Indus Valley, by and large, is devoid of basic raw material to meet some of their needs on its own. However, Harappans evolved in a magnificent civilization mainly because of their expansionist nature towards resource areas situated far apart by their ability to mobilize economic potentials. The discovery of Harappan settlement at Shortughai in Badakhshan province of northern Afghanistan for lapis lazuli (Francfort 1984), Balakot on the Somani bay in Pakistan for marine gastropods (Dales and Kenoyer 1977), Cholistan region in Bhawalpur District of Pakistan for copper (Mughal 1980), Limestone hills at Sukkur Rohri in upper Sindh region of Pakistan for flint/chert (Allchin and Allchin 1982 1996-97) and Manda in Jammu and Kashmir for Timber (Thapar 1985) are some of the explicit indicators of their hunt for procuring desired raw material. The penetration of Harappans further south into Gujarat demonstrates a similar enterprising character exploiting rich deposits of semi-precious

stones and marine gastropods (Sonawane 1992, 2005). Thus, enterprising Harappans demonstrated their skill in selecting suitable environmental niches during their multidirectional expansion. These factors and accessibility to natural resources were largely responsible for the growth, expansion and long survival of the Harappan culture. The spread of this civilization was therefore governed by the areas of attraction, depending upon the availability of resources and geographical factors conducive to their cultural dynamics. These factors partly explain not only the regional diversities in the manifestation of the Harappa culture but also the innate capacity of the Harappans to mobilize different subsistence systems by integrating them into their economic structure (Sonawane 1999, 2005).

The story of the rise and decline of the Harappan civilization is the summary of man's struggle for conquering nature and building an integrated peace loving and affluent society. Harappans seem to have succeeded to a large extent in this struggle. Later in the stage, Harappan civilization achieved a high degree of sophistication, yet was imbued with simplicity and utilitarianism. In terms of settlement planning, monumental buildings, impressive architecture, stamp seals, the pictographic script, uniform weights and measures, ceramics, jewellery, copper and bronze utensils and implements etc. is notable among the contemporary cultures. Moreover, it is also unique for its phenomenal growth and prosperity, close cultural uniformity, mass production of crafts, complex trade mechanism, maritime trade and intercultural contacts, besides long life and vast territory. Its elaborate trade mechanism controlled the process of procurement of raw materials, converting them into finished products and transporting them over long distances by both sea and land routes to domestic as well as international markets. All these reflects on a system which induced for surplus food production and controlled its efficient distribution to promote and sustain specialized activities by different classes of artisans and craftsmen as well as by well organized trading community. The Harappans had brisk trade relations with Mesopotamia, parts of Iran, Central Asia, Oman, Bahrain Island, and Failaka. Mercantile base for its rapid growth and expansion is envisaged through the vast archaeological data. The people of this civilization did not build towering monuments, bury their riches along with their dead or fight legendry and bloody battles and yet could evolve a highly organized and stupendously sophisticated first Urban-Civilization of south Asia. The Harappans thus made spectacular civilization, which

must have dazzled the contemporary world with whom they came in contact. Surprisingly still we do not know precisely what the nature of governing authority was as visionary rulers or architects behind the creation of such fabulous civilization. However, possibility of wealthy merchants, powerful landlords or spiritual leaders cannot be ruled out considering the evidence (Sonawane 2005).

3.4 THE ARCHITECTURE OF THE HARAPPAN CIVILIZATION

The manifestation of towns and cities is an urban phenomenon and thus, the first towns and cities were linked with the first urbanization that took place in the fertile valleys of the river Indus, Saraswati and their several tributaries and even in the far off region dominated by the Harappan civilization. However, on the basis of excavation, in many of the Harappan sites, it has been confirmed that these towns and cities grew out of earlier villages that existed in the same locality prior to Pre/Early Harappan period. Before 2600 B.C. sites like, Harappa, Dholavira, Rakhigarhi, Banawali, Kalibangan, Rehman Dheri, Nausharo, Kot Diji and many more existed in the form of rural Harappan settlements. Their ideal locational setups were on the threshold, which led to urbanization. Beginning with quite a small population, they grew in size and density to become larger settlements of the region along the major trade routes. Population growth, strong agriculture base, developed trade and growth of specialized skilled craftsmen favored the growth of towns and cities in the entire Harappan domain. These towns and cities amply fulfilled many of the criteria suggested by the Gordon Childe while defining Urbanization (Childe 1950).

Before going into the minutiae of Harappan town planning and layout of the settlements, fortification, gates, streets, drainage network, houses and buildings and water reservoirs, it is relevant to know the nature of its settlement. More than 1500 sites, (including Pre-Harappan, Early-Harappan, Mature-Harappan and Late-Harappan) covering the Harappan realm has been classified into three categories i.e. 1. villages or hamlets occupying an area sometimes even less than one hectare and maximum up to ten hectares, 2. towns between ten to fifty hectares and 3. cities extending in an area of more than fifty hectares.

Of these, maximum number of sites are represented by village or hamlets followed by quite a number of towns while metropolitan cities are just five in number. Their ratio

is somewhat similar to the distribution pattern of the villages, towns and cities, like the configuration of modern districts within a provincial state. In the entire Harappan domain, five large cities have been identified as the major urban centers or metropolis. Among these, Mohen-jo-Daro being the largest of all covers an area of more than 200 hectares. Second on the list is Harappa covering an area of more than 150 hectares whereas; Dholavira covers an area almost close to 100 hectares. Ganweriwala and Rakhigarhi measuring almost equal in dimensions occupy an area of more than 80 hectares. According to Kenoyer (1998), Jansen (2002) and Sonawane (2005) Mohen-jo-Daro, Harappa, Ganweriwala and Rakhigarhi are inland centers located far apart from each other approximately 400 km in a zigzag pattern that covers the Indus and Saraswati plain. The fifth, Dholavira, is situated in on a small island called Khadir in the Greater Rann of Kutch in Gujarat connecting Lothal situated further south east on one side and Balakot further on the north west on the other, located approximately 300 km away on the either side. Quite a good deal of archaeological data, for proper understanding of the Harappan town planning is available now as a result of extensive excavations. Key sites like Dholavira, Lothal and Surkotada in Gujarat, Kalibangan in Rajasthan, Banawali and Rakhigarhi in Haryana, Harappa and Mohen-jo-Daro in Pakistan, all located in diverse environmental and geographic settings has given a slight variation in the planning of the Harappan settlements, within the known Harappan norms.

3.5 TOWN PLANNING AND LAYOUT OF THE SETTLEMENTS

The most noteworthy feature, unheard elsewhere during the second half of third millennium B.C., is the remarkable town planning of the Harappan civilization, with a probable margin on either side. Dholavira being the exception with middle town as the extra feature of the settlement, every other small cities and towns of the Harappan civilization consist of the basic layout out of citadel and lower town. Recent excavations have proved that Harappan town planning does not represent uniform pattern. The evidence from Lothal (Fig. 3.1), Surkotada (Fig. 3.2), Dholavira (Fig. 3.3) and Banawali (Fig. 3.4) has shown different settlement pattern than that of Mohen-jo-Daro (Fig. 3.5), Harappa (Fig. 3.6) and Kalibangan (Fig. 3.7). With the excavation of Mohen-jo-Daro, Harappa and Kalibangan, archaeologists earlier had the conception of twin mounds, higher ones located on the west acted as the citadels and

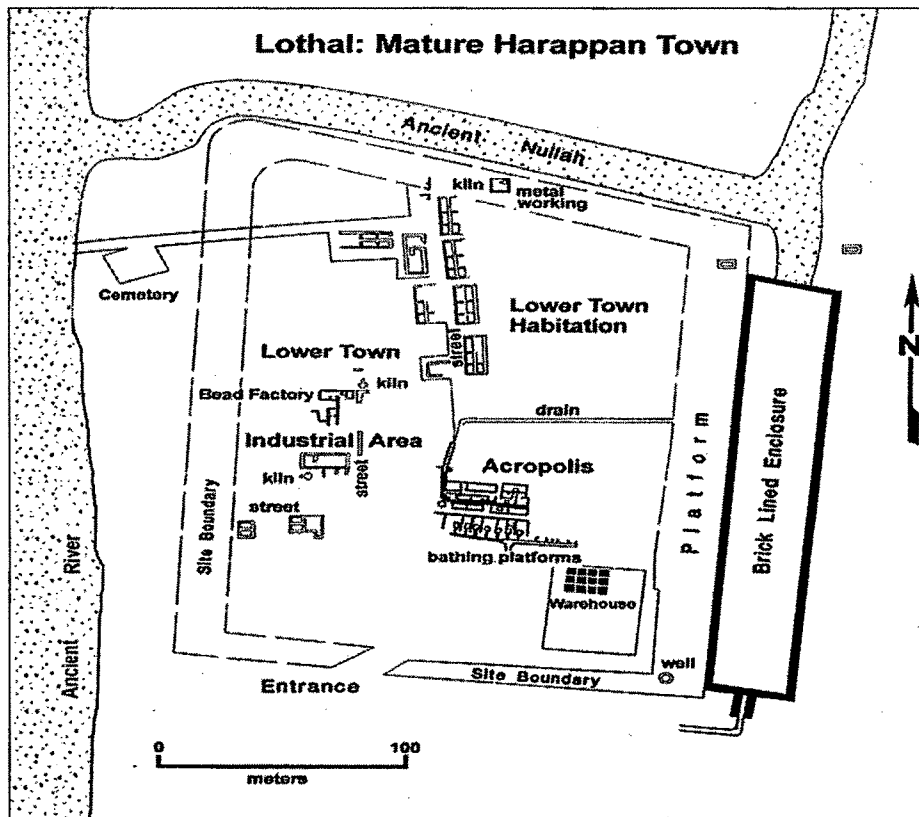


Fig. 3.1 The site plan of Lothal (courtesy ASI)

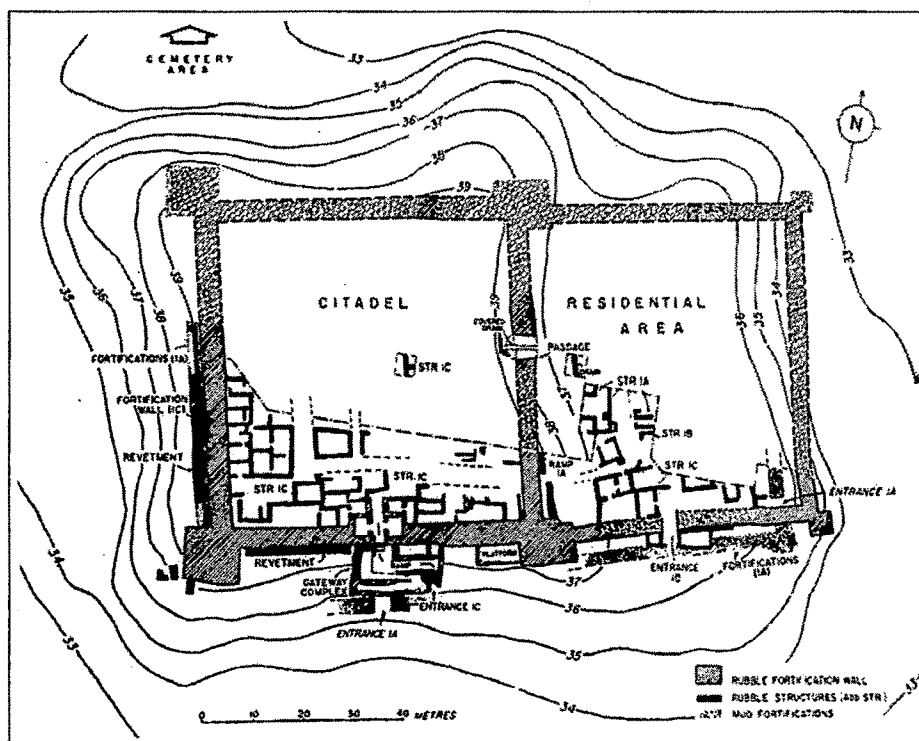


Fig. 3.2 The site plan of Surkotada (courtesy ASI)

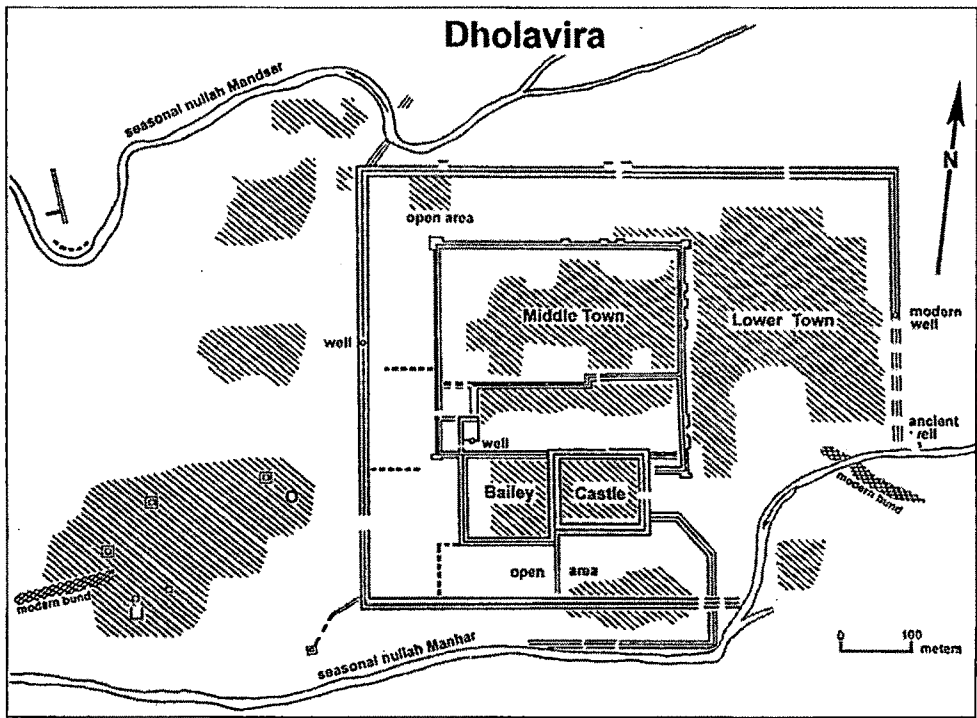


Fig. 3.3 The site plan of Dholavira (courtesy ASI)

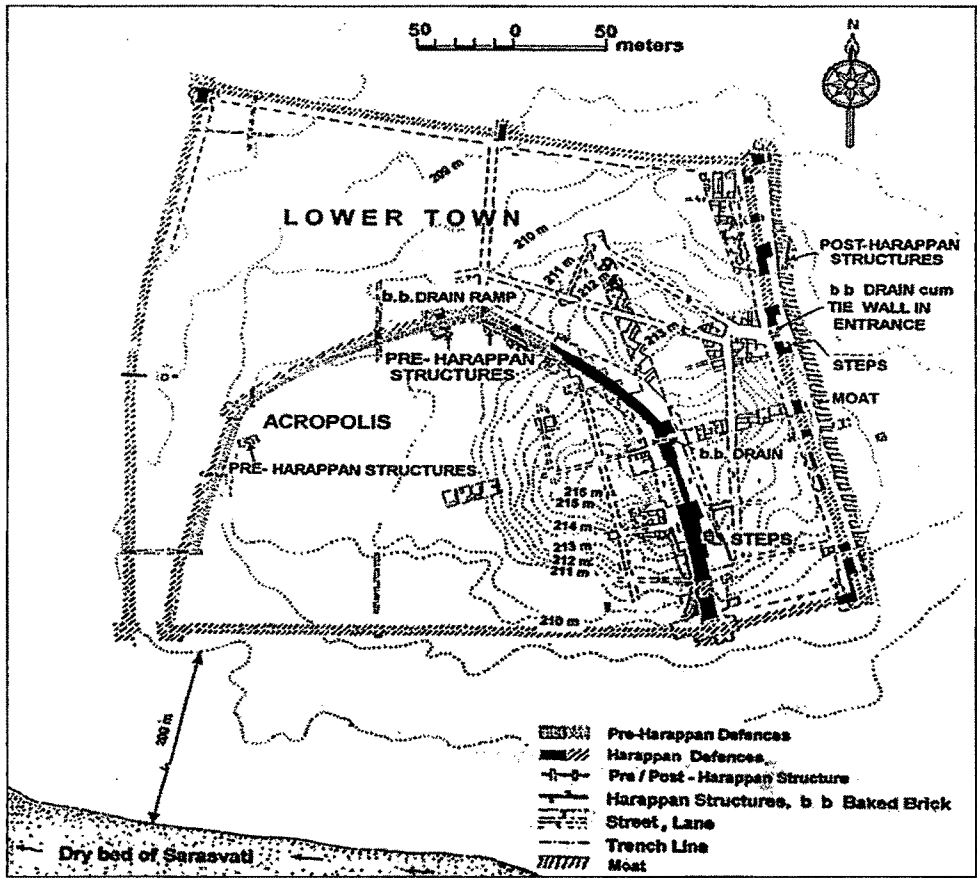


Fig. 3.4 The site plan of Banawali (courtesy ASI)

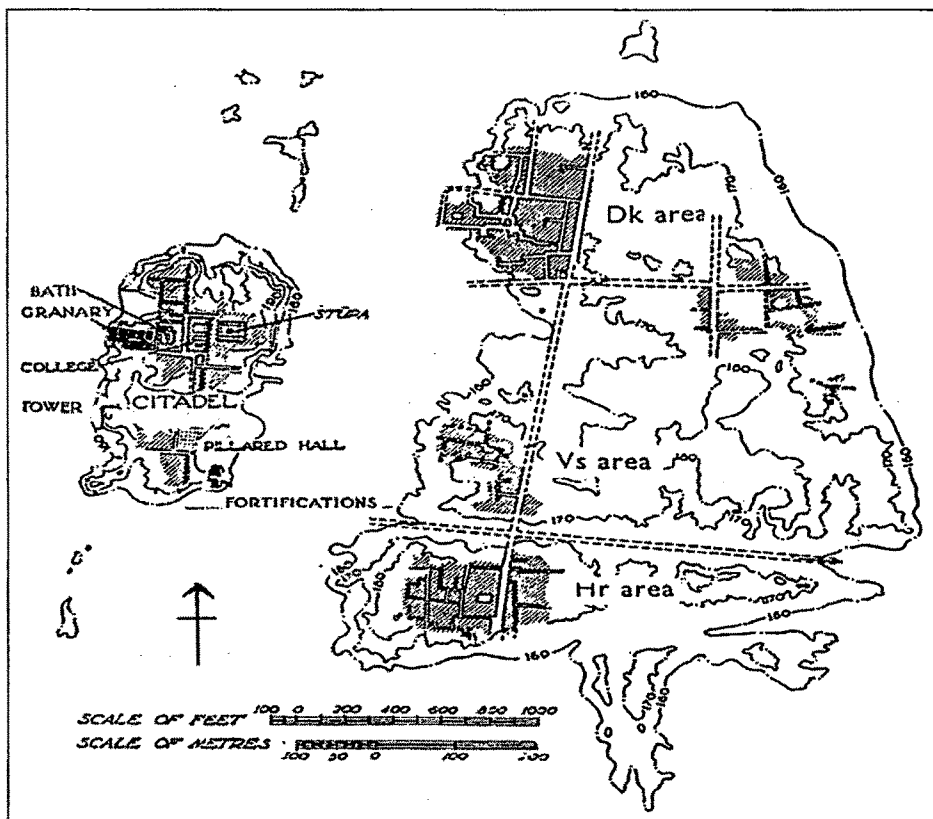


Fig. 3.5 The site plan of Mohen-jo-Daro (courtesy J. M. Kenoyer)

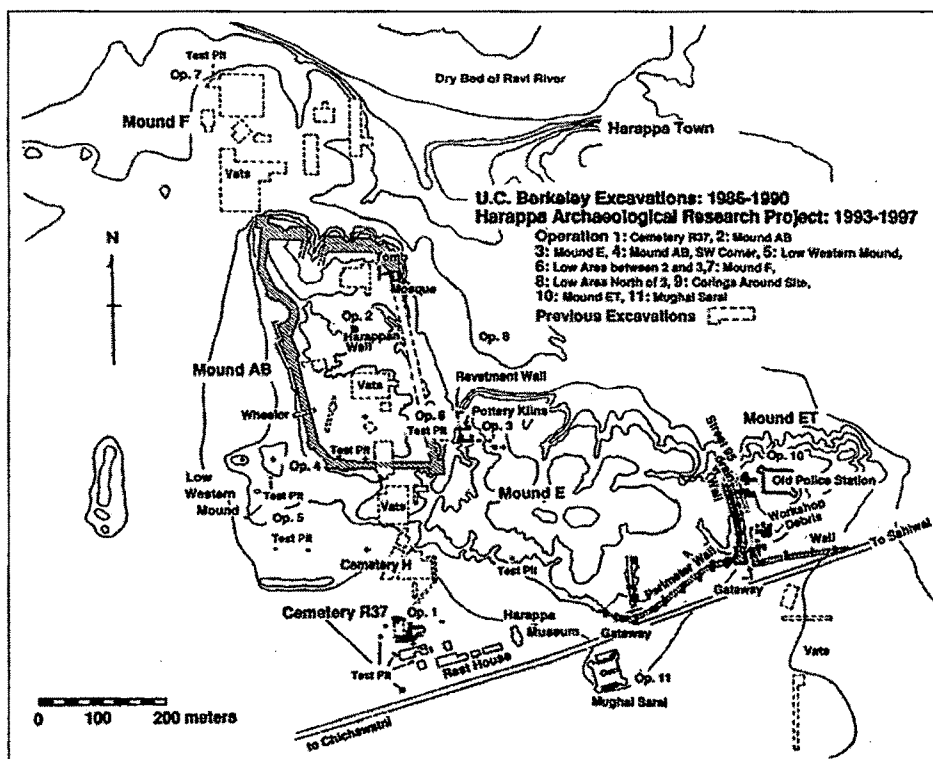


Fig. 3.6 The site plan of Harappa (courtesy J. M. Kenoyer)

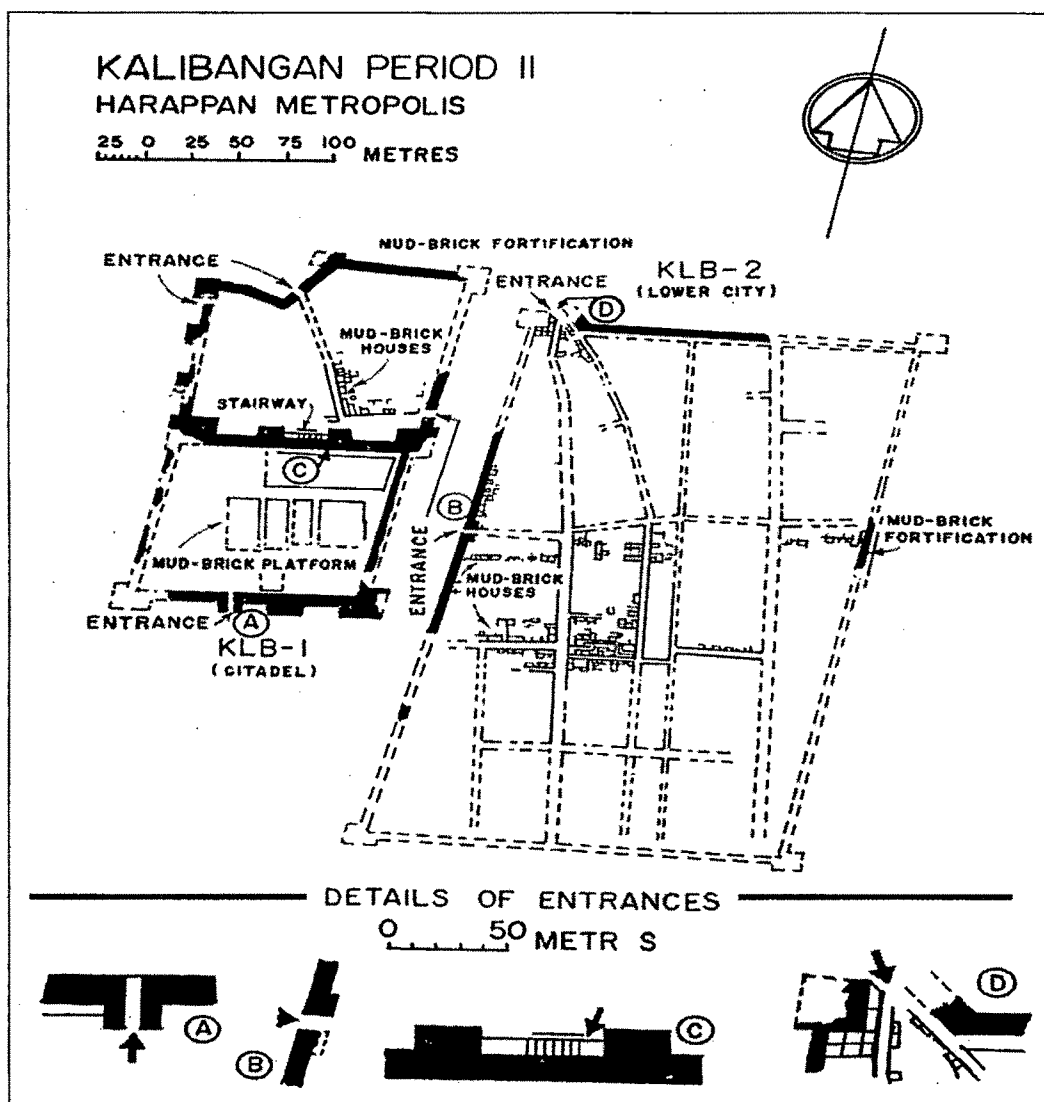
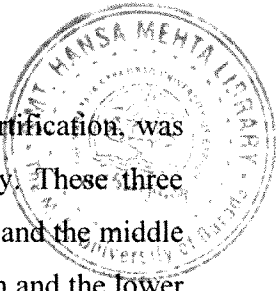


Fig. 3.7 The site plan of Kalibangan (courtesy ASI)

lower towns occupying relatively less elevated area situated towards the east. In the absence of large scale excavation at Rakhigarhi, covering entire site, precise plan of the settlement is yet to be known.

Based on the evidence of excavations, the majority of the Harappan cities and towns are composed of a series of walled mounds or sectors oriented in different directions. Harappa and Mohen-jo-Daro both have rectangular mound on the west and extensive mounds to the north, south and east whereas the settlement of Kalibangan is confined to two separate mounds with the citadel on the west, represented by a smaller mound and the lower city towards the east, marked by a fairly extensive mound. Citadel was situated over the remains of the preceding occupation to gain eminence over the lower

town, which was laid out on the natural plain towards the leaving the gap of over 40 meter between the two. Harappa is remarkably similar to that of Kalibangan in layout having fortifications—parallelogram on plan. Mohen-jo-Daro also appears to have a similar layout, despite the fact that flood erosions have obscured the evidence. The lower town of Harappa and Mohen-jo-Daro spreading out on different mounds also appear to have separately fortified. However, lower town of Kalibangan gives clear indication of fortification—parallelogram in shape. In contrast, Lothal and Surkotada follow a different expression for the layout of the settlement. In these two sites, a common periphery wall encloses both the citadel and the lower town. In case of Lothal, which is roughly rectangular on plan, with longer axis running north to south was surrounded by a massive brick wall, probably to protect from flood, as the site is situated on the low-lying area of Bhogava, a tributary of Sabarmati. There is no wall as such to separate the lower town from the acropolis; the latter is situated in on the southeast, a unique location. The layout of the Lothal also claims distinction because of a rectangular brick basin, interpreted as dockyard, attached with a wharf along the eastern side of the settlement. Whereas, fortification of Surkotada is built of mud and mud bricks having stone rubble veneer and also has a partition wall separating the citadel from the residential annexe in such a way that settlement gets divided into almost two equal squarish halves, with an intercommunicating passage between the two. The western half retains its identity as the citadel. Among all, Dholavira, on account of its unique city planning indeed enjoys a pre-eminent position. The city is basically oriented in the traditional cardinal directions, but the layout of the settlement, especially of the walls and sectors are quite different from that of the other Harappan settlements. The salient components of the full-grown cityscape consisted of bipartite citadel, middle town and lower town. These three sectors are set within gargantuan fortification constructed entirely of mud bricks, running on all four sides. The citadel of Dholavira, unlike its counterparts at Harappa, Mohen-jo-Daro and Kalibangan was laid out in the south of the city area. Like Kalibangan and Surkotada, Dholavira too has conjoined subdivisions, identified as castle and bailey, located on the east and west respectively, on the top of a low hill with fortification. Impregnable defences most zealously guard the former, being the most important unit, while the latter is lower in height and enclosed by comparatively less thick walls. A broad and long ground between the citadel and middle town has been interpreted as a ceremonial ground. Further north, was located the enwalled middle town and to the east of it was



founded lower town. The lower town though did not have its own fortification, was set within the general circumvallation running around the entire city. These three major built-up divisions made together an L-shaped design: the citadel and the middle town forming the shorter line from the north-south and the middle town and the lower town forming the longer stroke along the east west axis. Besides, to the south of the castle, across the adjoining reservoir, there was raised another built-up area running along the city wall. On the other hand, the Harappan town at Banawali stands apart for its unusual town planning which the Harappans accepted in bequest. Belying the accepted norms it had an apsidal citadel within a trapezoidal town, both fortified by brick separately and securely, following natural elevation, resulting in an unusual layout. The citadel of course, enjoyed pre-eminently vantage location within the town itself, not located separately as at Harappa, Mohen-jo-Daro, Kalibangan and Dholavira. In Banawali the situation is somewhat like that of Lothal, where the acropolis occupied a higher and comparatively much larger south-central area of the town in which former was embraced by the latter from the three sides, i.e., the eastern, the northern and the western. Another innovation of special significance was the provision of a V-shaped moat that runs around the outer face of the town wall.

From the above mentioned data it is quite obvious that the centralized planning of the Harappan settlements is one of the distinctive features and the earliest advanced urban civilizations of the world. Although they were not strictly laid on chessboard or grid patterns with invariably straight roads, they do show many signs of careful planning. Sites like Mohen-jo-Daro, Harappa and Kalibangan had low, large eastern sectors and separately fortified higher but smaller western sectors, known as lower towns and citadels respectively. There is a clear evidence that the buildings of the citadel were laid on a high podium fortified with bastions and towers whereas the eastern one too lay within a fortification though of high magnitude but less impressive. Though some of the settlements were fortified even during the Early Harappan phase, their actual division into separate enclosed units evidently appears to coincide with the Mature Harappan phase only, obviously denoting socio-political stratification. On the contrary Surkotada shows no such divisions but has only a single sector on the model of western sector of Kalibangan. Though, Lothal and Banawali each lay within a single enclosure, the latter shows distinctly fortified apsidal citadel within a trapezoidal town. Of the two, Lothal has distinction of having a dockyard. On the

other hand, Rakhigarhi, though not fully exposed show signs of possessing more than two walled residential sectors. However, Dholavira stands apart and show three divisions within the general enclosing wall consisting of bipartite citadel (Castle and Bailey), middle town and lower town, which temptingly sound analogous respectively to three different categories of the settlement or buildings. An open space between the citadel and the middle town served as stadium. However most amazing is the layout of gates and provision of larger reservoirs in the drought prone area of Kutch, integrating the use of two local streams into the overall civic planning. However, despite variations in details, all settlements were well integrated to suit into the landscape under one platform. Unlike the haphazard arrangement of Mesopotamian cities, Harappan settlements followed the same basic plan everywhere.

3.6 FORTIFICATION

One of the important aspects of the Harappan town planning is the provision of forts. Archaeological evidences has brought into notice the concept of development of fortification during pre and early Harappan phase, it became more pronounced and standardized during the Mature phase with the emergence of earliest towns and cities, as a measure to safeguard their settlements. The massive fortification walls were in fact solid structures made of proportionately moulded bricks set in mud mortar. Successive courses of brick were laid in recessed manner as a result both the faces registered a marked taper, which resulted into the raised wall from a border base to a lofty narrow top forming trapezoidal cross section and often indicating the evidence of clay plastering. On the other hand, in areas where the availability of stones are easy, i.e. Dholavira and Surkotada, both inner and outer faces were provided with stone facing to sustain the strength of susceptible portions. It appears that special care was taken for the construction of the corners, gates and bastions of the fortification. In Harappa, one of the walls around mound AB, was 14 meter wide at the base and the exterior face of the wall was of baked bricks. Whereas, in Kalibangan the width of the fort wall of the citadel complex varies from 9 to 11 meters. At Dholavira, the basal width of the fort wall of the castle is 11 meter whereas at Banawali, the basal width of the fort walls of the citadel ranges from 5.4 to 7 meter. At Surkotada, the width of the fortification wall of citadel is 7 meter whereas residential annexe is 4.25 meter. At Lothal, despite the fact of a relatively small settlement (covering an area of only

twelve hectares) was protected against floods by raising a 13 meter thick wall of mud bricks. However, northern side of the wall (facing the ancient river bed) was armored with baked bricks. More so, some of the smaller settlements like Bagasra demonstrate more or less the same layout where square bastions were provided on the curves of the inner face instead of outer ones.

However, most of the scholars are of the view that the massive fortifications were for military confrontation, but the nonexistence of sudden turn in walls and no moats (with the exception of Banawali) to lead enemies into an ambush, would have been ill suited for defence. For that reason, it appears that, they were rather created to control to the flow of goods in and out of the city (Kenoyer 1998: 56). What on earth were the precise function of the fort walls and gates; they demonstrated the high level of architectural skills of the Harappans.

3.7 GATES

Archaeologists are still not very sure of the precise number of gates provided in different walled sectors both at Harappa and Mohen-jo-Daro. Mound E at Harappa, gives the evidence in one of the gates to be only 2.8 meter wide, just large enough to allow movement of one bullock-cart to get in or out of the city, at a time. It seems that the top of the gate was perhaps covered and may have had rooms or sentinel posts. The second most important gateway of mound E found near the junction at mound E and ET, is much more complex. The actual gate opening is only 2.6 meters in width but it has pylons and side rooms. Around mound AB, the excavated walls revealed four gates, three on the western face and larger one on the northern side of the wall with a ramp leading down to a lower suburb in the north of mound F. Recent studies at Mohen-jo-Daro seems to have confirmed that similar to that of Harappa, each major mound at Mohen-jo-Daro was surrounded by an enormous mud brick walls with gateways at locations (Kenoyer 1998: 55-56). As said earlier, the fortified citadel complex of Kalibangan consists of two almost equal but separately patterned parts, rhomboid on plan, has revealed four gates, three in the northern half and one in the southern half. In addition, the separation wall, dividing citadel and lower town, also has a gate in the form of stairway between the two centrally located salient, connecting both the entity. Three gates of the northern half (occupied by the elites) and one each on eastern, western and northern side, are simple ones without a ramp,

exceptional being the eastern one with a brick pavement on the edge. In addition to these, the southern gate situated between central salient and the southern corner tower has revealed 2.65 meter wide stairway passage. Similarly, two entrances of the fortified lower town were found on the northern and western sides. Of these, the western entrance was controlled by a guardroom (Thapar 1979: 200-01). In Lothal, there is not a single evidence of tower or gateway built in the periphery wall. On the contrary, the extent of excavated areas has revealed a slanting entrance passage to the acropolis on the southern outer wall further west of the warehouse. At the same time scenario at Surkotada is quite different. Being a garrison defense outpost, it has elaborate gateway complexes with guardrooms. Here, citadel as well as residential area was provided with separate entrance, each 1.70 meter wide, constructed in the middle between the corner and central bastion of the southern rampart. In addition, a 4m wide passage for intercommunication was provided in a partition wall between citadel and the residential annexe (Joshi 1990: 51-57). Similarly, Banawali has an elaborate gate complex constructed in the thick outer eastern wall was found where five major streets met with the passage of the gate on a broad piazza. It was flanked by bastions having a moat in front.

Most noteworthy of all the Harappan settlements, Dholavira accounts for most of the gateways unparalleled to be seen elsewhere. Overall, 14 gates have been laid bare in different fortified habitational areas. The divisions of all these 14 gates are: Castle-5; Bailey-2; Stadium-4; Middle town-1 and Annexe-2. All the five gates of the Castle bear distinct designs. Of these, eastern arm of the fortification wall has yielded two gates while one each in remaining three sides of the walls. The south gate has a concealed passage with an ordinary doorway. Gate on the western arm, which was connected with the Bailey, has a 9 meter long and 2.2 meter wide passage with a guardroom. The eastern gate (Fig. 3.8), one of the two major ones, had a large elevated side chamber on the south and a passage on the north. The passage was interconnected with the flight of 14 steps at the inner end while the other end was fitted with a doorsill made of large limestone slab. On the either ends of the floor of chamber was found a set of smooth, nicely cut and polished limestone blocks of rectangular shape. Thus, it is quite possible that both the ends have been provided with huge doors. In these blocks, the topmost block bore two long sockets, one each on two sides, parallel to each other. Each pair of the blocks served as the base for the

pilasters, made out of mud-concrete bricks. In the center, between the two pilasters, was found another set of limestone blocks supporting a beautifully carved and polished pillar base having a pronounced concave profile. The top flat surface bore in the center a 5 mm circular hole to support a large sized cylindrical pillar. The northern gate (Fig. 3.9) was found to be the most majestic, most elaborately designed architectural construction, which commanded over the stadium, middle town, lower town and further beyond the picturesque landscape. In the thickness of the wall, it consisted two elevated chambers flanking a passageway, which in term was furnished at the inner end with a limestone doorsill flanked by a set of limestone each bearing sockets, thereby suggesting the existence of two enormous stone columns, which might have supported the heavy door frame (Bisht 1998-99: 30-31). Discovery of these pillar bases in situ, in Dholavira, helps us to understand numerous such stones found in the streets and dumps at Harappa and Mohen-jo-Daro. Comparatively, other gates found at Dholavira are rather simple.



Fig. 3.8 Members of Central pillar in the Eastern Gate at Dholavira

(courtesy ASI)



Fig. 3.9 Western Chamber of the Northern Gate at Dholavira (courtesy ASI)

3.8 STREETS

Streets are of the utmost importance in any of the civilization and the layout of the streets can tell us about the nature of the settlement. During Harappan period too, streets played vital role in the urban planning. The overall layout of the Harappan settlements is distinguished by the orientation of streets according to cardinal directions. The prime streets at best were laid out running north-south and east-west cutting at right angles forming a grid pattern in such a manner that it divided the settlements into square or rectangular blocks. Though, in its stricter sense Mohen-jodaro does not have precise alignment and the widest street measures 9.1 meter, running across the lower town, from north to south. Excavations at Kalibangan have confirmed the existence of four arterial thoroughfares, running north-south and three running east-west. While the former were found to run without hindrance, the latter did not come across the former but were staggered and possibly served as entrance lanes for certain house blocks. Yet again, while the former were not equally spaced, the latter were situated on an average of 70 meter from each other. The width of the

thoroughfares and streets corresponded to the multiple of 1.8 meter and range from 1.8 to 7.2 meter. To prevent damage from vehicular traffic, fender posts were provided at some street corners. Throughout the occupation, the width of these thoroughfares appears to be maintained, the only encroachments of the structures into the streets were rectangular platforms immediately outside some houses. Archaeological evidences suggest that the streets were unmetalled, except in the late phase. The layout of the city shows that the alignments of the streets were at variance with that of fortification walls. It seems fortifications and streets had been planned at the same time (Thapar 1979: 200-201). In the same manner the streets of 4-6 meter wide and narrow lanes of 2-3 meter divided the principal living area of Lothal with main-street running from north to south. Surkotada also furnishes the evidence of streets and lanes in between the house complexes.

Dholavira, however, remains exception with the main arterial street running east-west, connecting lower and middle town and either sides were provided with bold projections and recesses, which resulted into an open space opposite to the main street, which is indeed a unique method of layout of the habitational sectors with a wide-open space so far unknown at other Harappan sites. Of course, one could also see major and minor streets and lanes, which cut each other at right angles for making a defined network of housing units (Bisht 1998-99: 25-26). The streets at Banawali due to typical configuration of the settlement offered a different layout. The citadel has, notwithstanding its curvatural delineation, resolved itself in formal arrangement of streets and lanes which ran straight almost along the citadel directions and cut each other at right angles and thereby determined a fairly rectangular form for individual housing sectors of which six units can be easily identified within the excavated area. On the other hand, the lower town, having trapezoidal plan, has exhibited a nucleated radial layout of the streets and lanes, which, in turn, demarcated a series of triangulate of acutely trapezoidal residential sectors. In this unconventional layout, there were seen certain focal points for streets, like spokes of wheel, to converge on or radiate from. They therefore, made an acute or obtuse angle at the point of bifurcation. In the lower town, one such focal point was near the east gat, where five major streets- three coming from the interior of the town and two running along the fortification wall-meet with the passage of the gate on a broad piazza. No streets showed use of vehicular traffic. The only exception was seen in the outer street near the northern

apex of the citadel wall. Here, several pairs of rut marks were found deep cut into the street floor. This shows that the movement of carts was restricted to some special streets only (Bisht 1998-99: 19-20).

3.9 DRAINAGE NETWORK

One of the most excellent features of the Harappan town planning is the well laid out streets and side lanes geared up with drainage network. As a matter of fact, discharge of polluted water and sewage was an important part of the concerns of the Harappans, which is reflected not only in the cities but also in smaller towns and villages having impressive drainage system. Baked bricks were the important part for the construction of the drains. Bathing platforms and latrines of the houses were connected to the medium sized drains in the side streets. These medium sized drains flowed into larger sewers along with the main streets, which were covered with bricks or dressed stone blocks. Corbelled arches allowed the larger drains to cut beneath streets or buildings until they finally exit under the city wall. One completely preserved drain found at Harappa has a magnificent corbelled arch- 1.6 meter high, 60 centimeter wide and extends from 6.5 meter beneath a major city street. Rectangular sump pits, for collecting solid waste, were aided with main sewage, at regular intervals. Harappans seems to be through with the art of management of waste water inside the houses. As evident from excavations, there were provisions of intramural drains, vertical drain pipes in the walls, chutes through walls to the streets and drains from bathing floors into the street drains. The Great Bath at Mohen-jo-Daro was provided with that largest of all the Harappan culverts. Water from inside houses was sometime led directly into a street drain, but there are other facilities, which were used as well, like brick-lined cesspits and pottery jars along the streets.

On the other hand, Dholavira presents excellent evidence of rainwater drains. The citadel has yielded an efficient system of water harvesting through network of drains to a reservoir carved out in open space provided in the bailey. The large drains are high and broad enough to allow a person to walk through (Fig. 3.10), resembling the drain to flush out wastewater from the Great Bath at Mohen-jo-Daro. Small apertures at short intervals on the roofing stone slabs, which might have acted like ducts to let air escape and instigate the easy flow of storm water, are one of the interesting features of these drains at Dholavira.



Fig. 3.10 Covered Rainwater Stone Drain at Dholavira (courtesy ASI)

3.10 HOUSES AND BUILDINGS

Groups of residential houses and public buildings were constructed close together and formed larger blocks that were bordered by lanes and wide streets. Most of the houses opened on the narrower streets and lanes and rarely on the main street. An average house centered around an open courtyard from which access was provided to the various rooms to meet basic requirements as modules seen in traditional houses even today. Apart from bathroom, latrine, and drains for sewage in almost every house, hearth was also a common feature and quite a few of the houses having their own well. Floors of the houses were either made up of rammed earth or moulded mud bricks. Quite a few houses have provided evidence of staircases, which suggests the

possibility of upper storey; though it is quite likely that in most of the cases these might be the openings for the roof. On an average, house walls were 70 centimeter thick and ceilings were probably three meter high. Clay models of houses show that some of the doorframes were painted and possibly carved with simple decoration and also suggest a kind of locking device. Windows were reported to have normally formed by lattice brickwork. Besides the common types of houses, barrack like quarters, arranged in two parallel back to back north-south rows, separated by a narrow passage were evident from the HR area of Mohen-jo-Daro. Here, each quarter had two rooms, one at the back and the other in the front. These barracks are reminiscent of more or less similar quarters at Harappa. There were also large houses surrounded by smaller units served as one single residential complex. The other outer units may have been the houses of relatives or service groups attached to the main house. While large public buildings may have been associated with specific administrative or religious functions. The structures identified as the Great Bath, the so called granary, the College, and the Ware-house etc. may be included in this category (Sonawane 2005).

3.11 WATER RESERVES

Depending upon the geographical position and environmental setting of the site, wells, tanks and reservoirs were built to ascertain various necessities related to water. Jansen estimated that Mohen-jo-Daro may have had more than 700 wells (Jansen 1989: 252). Comparatively, Harappa may have had as few as 30 wells. In the same manner excavations at Chanhudaro, Kalibangan, Lothal and Dholavira also had furnished evidence of wells restricted to very few in counts. Majority of these wells were lined with specially made wedged-shaped bricks (Fig. 3.11) to form a structurally sound cylinder, with the depth of almost 10-15 meter, which would not cave in under pressure from the adjacent earth. On the top edge of the well made of bricks had deep grooves, except that of Dholavira where such marks are seen on the basal stone slab of the trough (Fig. 3.12), indicating use of ropes to lift the water, probably with leather bags. At Mohen-jo-Daro, diameter of the wells ranged from 60 centimeter (being the smallest) to 2.1 meter (the largest one). Whereas, in the castle area of Dholavira, with highly skilled masonry work employed in the construction of the well is the largest, of which the inner diameter measures 4.12 meter.



Fig. 3.11 Backed Brick Well at Lothal (courtesy ASI)



Fig. 3.12 Stone-well showing Rope Marks at Dholavira (courtesy ASI)

Mohen-jo-Daro's tank complex, popularly known as Great Bath is considered as the earliest public water tank in the ancient world measuring approximately 12 meter north-south and 7 meter east-west, with the maximum depth of 2.4 meters. Two set of step ways, one each on northern and southern sides, led to the base of the tank. To avoid leakage of the water from the tank, impregnable gypsum-mortar was used in between brick-on-edge floors of the tank as well as in the sidewalls. Corbelled drain in the south-west corner of the floor of the tank was used to discharge used water. Around the tank there ran successively a courtyard and pillared corridors. In one of the rooms, found behind one of the three corridors have a double-lined brick well, which obviously supplied water to the tank. Most of the scholars are of the view that this elaborate building was not only used simply for public bathing but also might have some religious significance, where water was used to purify and renew the well being of the bathers in special religious functions. Similarly, at Dholavira, in the southwestern quarter of the castle two water tanks with a well, as an interrelated complex was identified. Of these, larger tank (Fig. 3.13) has competently made floor with smothered stones, the side walls upto a certain height lined with large limestone slabs and superstructure with dressed stones. Northern portion of the tank was provided with a flight of steps till half way down only and not upto the floor as a normal practice. Center of this tank was provided with pit, probably to let the dirty water accumulate there during the periodical cleaning of the tank. Small aperture was also noticed in the tank for an easy disposal of the bulk of water. Probably it was connected to the waste-water drain under the nearby Broadway. Sticky, grey-colored clay, highly impervious in nature towards water, was used in the masonry work, to make tank leak-proof. The smaller tank, besides the bigger one was more or less in the same fashion, exception being, the steps were provided upto the tank floor. Common source of supply of water for both these tanks was from the nearby well, which was connected with high inlet drain. Nevertheless, Lothal too provides interesting feature of baked brick lined basin, practically rectangular in shape and measuring 219 by 37 meter in size, was located right away to the east of the parish of Lothal. The brick walls of the sunken enclosure are 4.5 meter high. A platform borders the town side and permit easy access to the Warehouse and Acropolis. In addition, two inlets were also noticed, supporting entry of water in the tank, one each on the northern and southern wall, measuring 12 meter and 7 meter in width. Beside this, a spill way for the exit of surplus water was provided in the southern wall.

Excavator has identified this water-body as dockyard (Fig. 3.14) (Rao 1979: 123-135). However, there still remains, elements of doubt about the explicit function of this brick lined enclosure and is still open to question. Few scholars do believe that it was a tank (Leshnik 1968). In fact, none of this tank versus dockyard alternatives is fully convincing. Leaving aside these functional utility theories, it remains one of the ancient and represents one of the largest artificial water-retaining basins, reflecting superior hydraulic technology developed by the Harappans.

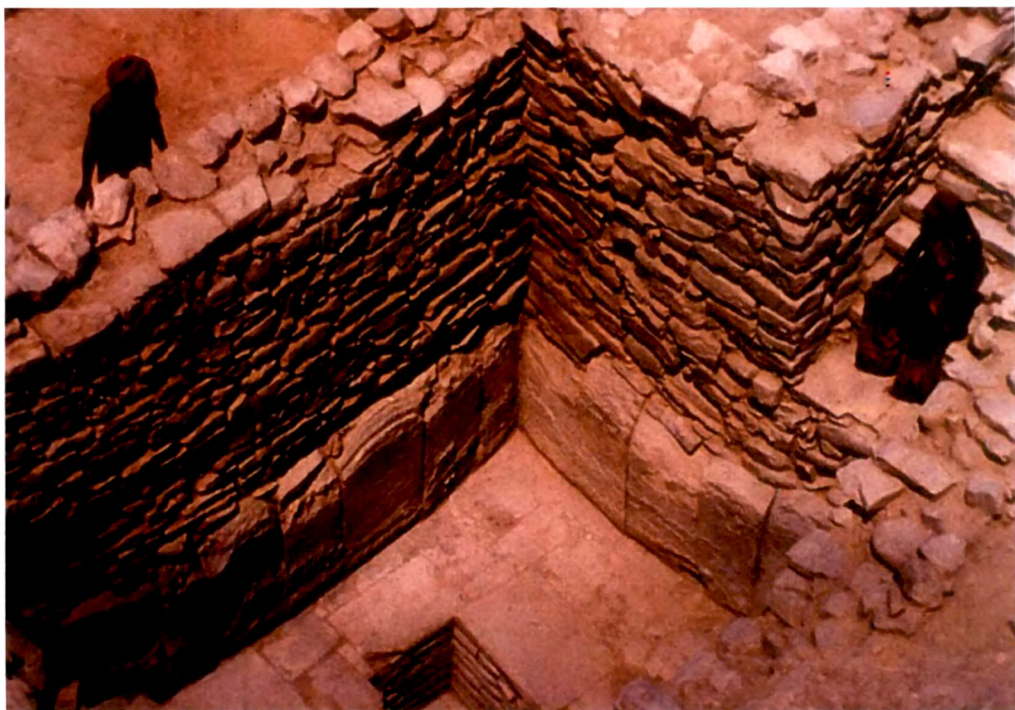


Fig. 3.13 Water Tank at Dholavira (courtesy ASI)



Fig. 3.14 Dockyard at Lothal with a spillway (courtesy ASI)



Fig. 3.15 Water Reservoirs at Dholavira (courtesy ASI)

Dholavira, of all the Harappan sites, was endowed with the most proficient system of water harvesting and storage in the form of reservoirs (Fig. 3.15) in the absence persistent rivers, lakes or springs in its environs, where subsoil water is by and large, briny. It seems as if great deal of consideration might have been given for the site like Dholavira, at an ideal location between two seasonal drains, the Manhar and the Mansar. The architects of Dholavira might have conceptualized an astonishing harmonization of dams and tanks to manage water by conserving every drop of water that used to flow in the contiguous streams after the downpours; or else, a city of such magnitude may not have flourished in an area where drought and famine are so common. The Dholavira Harappans, during their prime, constructed almost sixteen reservoirs of varying dimensions, within the city walls along the northern, western and southern sides of the main settlement and to the main settlement of the citadel. The Harappans were extremely conscientious towards zealously storing the maximum or rather the entire volume of water that used to flow in the flanking streams after the downpours. A casual rough estimate works out that approximately 17 hectares, i.e. 36% of the total enwalled area was appropriated alone for the storage of the water harnessed from the streams by way of raising several dams which are at least three or four across the Manhar in the south and two or three across the Mansar in the north. In addition, there might have been quite a few inlet channels piercing through the city walls for bringing in the surface run-off. (Bisht 1997: 117). It is worth noting that the

gradient between the higher northeast and lower southwest area of the city is 13 meter, an ideal situation of having reservoirs. Of these, the reservoir located to the east of the castle has 31 steps from the top to bottom and is a marvel of the technology and endeavor, of which the embankments and the steps were built in the stone masonry. It is 24 meter wide and varied between 7.5 and 5 meter in depth. Another reservoir near the Annex, to the south of the Castle, has an expose length of 95 meter and width of approximately 10 meter. The depth varies from 2 to 4 meter. It is one of the earliest ever rock cut example of reservoir and that too of such a large scale. The excavator remarks that the city might have looked like a lake-city or "*Jala-Durga*".

3.12 ARTS AND CRAFTS

Many of the sites of the Harappan domain were engaged in craft production activities. They produced tools, beads, bangles, inlay objects, ceramics, seals, toy objects, household utensils etc., using various raw materials. The diversity of stones and other raw materials used by the Harappans include steatite, alabaster, shell, carnelian, agate, jasper, lapis lazuli, copper/bronze, gold, silver, amazonite, crystal, chrysoprase, bloodstone, milky quartz, opal, onyx, plasma, sandstone, chert, granite, chalcedony, feldspar, hornblende, schist and dolerite (Lahiri 1992).

The Harappan art reflected in the form of pottery paintings, decoration in the beads, engraving in the seals and sculptural art forms. Due to the uniqueness of Harappan seals and sculptures/figurines, special emphasis is given to them.

3.12.1 Seals

The stamp seals of the Harappans, carved in intaglio are masterpieces of art noted for pragmatism. Most of the Urban Harappan sites have reported seals and in fact constitute one of the distinctive traits of the mature phase. Seals and Sealings are already in thousands and more are pouring in with every new excavation. Although there are variation in shape, size and implementation, the most common are with squarish shape, each side measuring around 2 and 3 centimeter with an average thickness of about 50 to 60 millimeter. However, some of seals were rectangular, circular and even cylindrical. Few circular and cylindrical seals found in Harappan context are unusual. Presence of these seals, especially the cylindrical ones often with Harappan motifs suggest a cultural interaction with Mesopotamian and Persian world

whereas; the circular ones are the diagnostic of Gulf area. Despite the fact that mainstream of the seals are made of steatite, there are instances of copper, silver, calcite and even faience also. The process of manufacturing in case of steatite normally involves cutting of steatite (soft soapstone, with the hardness of 1 on Moh's scale, easy to saw, carve and smoothen) into the required size and shape and then the surface was smoothened with some sort of abrasive. The finest surface was then carved with the help of sharp instrument like burin or chisel and finally a coating of alkaline solution was applied before firing to harden it and also to get a white shining look. The majority of the seals, irrespective of their material, had a convex perforated boss on the reverse, through which a thread could be passed for suspension. Amongst the variety of subjects depicted on seals, it was the so-called 'Unicorn' (one horned mythical animal) that outnumbers the rest (Fig. 3.16). In every case of this category, in front of the animal is shown a standard like object, variously interpreted as manger, brazier, incense burner or sacred filter (Mahadevan 1984). The other animals incorporated are the short-horned bull (bison), Brahmani bull with its characteristic dewlap and hump (Fig. 3.17), buffalo, rhinoceros, tiger, elephant, crocodile, antelope, goat, hare, etc. then there were composite animals and even human and animal combinations. Some seals contain more complex iconographic scenes representing mythological or religious depiction (Joshi and Parpola 1987). The signs of Harappan script on the seal, which were carved either inversely or "intaglio" since they were stamped, assumably stands for the name of the owner, the name of an affiliated organization or the name of the deity. These seals were probably used for trade as an administrative instrument as well as for other functions too. The recent analysis suggests that the number of actual seal impressions (sealings) are much less than that of seals, as majority of them are found abraded only at the edges and retain the crisp edge of the carving more or less intact, has led the scholars to the speculation that they were used more as protective amulets and/or identification marks than in administrative and economic life (Chakrabarti 1999: 181). The existence of one or two examples of 'amulet' reported from Mohen-jo-Daro and even Bagasra, where the interior of the seal had been carefully hollowed out to form a compartment, which was formerly closed by a sliding cover that fitted with grooves cut into the opening of the socket so that something, most probably, a magic charm, could be safely kept inside (Fig. 3.18). It also appears that square stamped seals with animal motifs carried messages understandable to different citizens. As totemic symbol, the additional

traits, such as power, cunning, agility, strength etc. may have been associated with each animal, depicted on seals. It is also surprising that the animals depicted are usually male and has some specific connotation (Kenoyer 1998: 83). Thus now, Harappan seals are treated more in the nature of token of power and prestige rather than mere badges bearing their owners name. If the function of these seals, in which they were supposed to perform, such as, simply restricted to vouching for merchants right on the goods they were stamped on lump of clay of sealed container, there is no reason why so much artistic skill went into their manufacture.



Fig. 3.16 Typical steatite inscribed Harappan seal depicting unicorn
(courtesy Department of Archaeology, The M. S. University of Baroda)



Fig. 3.17 Typical steatite inscribed Harappan seal depicting Brahmani bull
(courtesy J. M. Kenoyer)

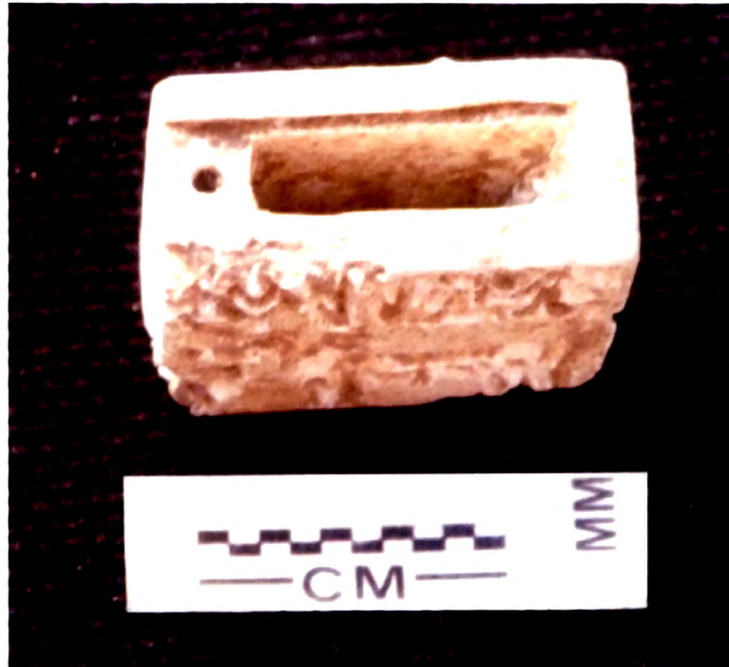


Fig. 3.18 Steatite Harappan seal with socket from Bagasra
(courtesy Department of Archaeology, The M. S. University of Baroda)

Major research efforts on the Harappan seals have been directed towards the decipherment of the Indus script and very feeble attempts were made in understanding the pictorial depiction and categorization of the representations to read the minds of the Harappan people. In this regard P.V. Pathak has tried to interpret some of the seals as pictorial representation of the Atharva Vedic hymns (Pathak 1998-99, 1999).

3.12.2 Sculptures

The degree of the works of art in a broad-spectrum and the sculptures in specific, add greatly to our comprehension of ancient cultures and presents an insight into the minds of the artists, reflecting not only the spirit and atmosphere of a culture but also by giving an indication of social values and religious beliefs in such a pronounced way which is nearly impossible with other material remains. Same thing implies with Harappan culture also. Although, very few sculptures are known so far in the vast corpus of the Harappan material remains, no doubt, these sculptures speak of high standard of craftsmanship achieved by the Harappans in this sphere of human activity also. Regrettably, in contrast to other aspects of the Harappan studies, sculptural art as an important area of research is yet to attract scholars.

In comparison with Mesopotamian and Egyptian civilizations, Harappan civilization has reported very limited number of stone and bronze sculptures depicting basically human and animal forms. Nevertheless, there is some justification on the whole issue for maintaining a multiplicity of art styles and postulating the roots of the much later historic art of the Indian subcontinent in them. Amid the self-effacing collection, the major specimens are reported from Mohen-jo-Daro and few from Harappa, Chanhudaro, Dholavira and Daimabad. Of these, except the statue of 'Dancing Girl' from Mohen-jo-Daro and Daimabad hoard representing various animals were casted in bronze rest were carved in stone, dominated by male figures.

Among these, the famous one from Mohen-jo-Daro is steatite sculpture popularly known as the 'Priest-King' (Fig. 3.19). It probably represents a person of very high rank, judging from the elaborate clothing and ornaments. Even though the body below the chest is missing, it is 17.5 centimeter in height and the width is 11 centimeter. It has well-combed hair, parted in the middle and dropping behind the neck. Parallel lines in the relief show a well-groomed beard. In contrast, however, the upper lip is clean shaved. Around the forehead goes a band, which is tied behind and fall backs further down from the neck. A circular piece attached to this band on the forehead may probably have some special significance. The eyes are half closed, as if the priest is in meditative pose. The figure wears a shawl like garment, which passes underneath the right arm but goes over the left shoulder. It has a design of trefoils, which were originally filled with red pigment. It has also been noted, when discovered, that one of the eyes had shell inlay. The right upper arm is also decked with an ornament similar to that of the fillet headband. The back of the head is flattened, possibly in order to affix a horned headdress as a symbol of sacred authority. Parpola attempts to demonstrate that the garment of the Priest-King is something called the *Tarpya*, found in the Vedic ritual (Parpola 1985). The most famous stone sculpture, in terms of Harappan context after the "Priest King" is the small male torso found at Harappa (Fig. 3.20). This masterpiece is carved from fine-grained red sandstone (jasper), a material that was never used by later sculptors. It is 9.5 cm high with arms and head missing and broken at the legs. Nude figure of this youth with well-built yet supple and sensuous body bear holes for the attachment of the heads and arms, but none are apparent for the legs. Prominent circular indentations, probably made by a tube drill

are located on the front of each shoulder probably to affix a garment or for the inlay of the ornaments. The holes for the breast nipples are apparently intended for the inlay. Another interesting sculpture reported from Harappa is made of dark grey stone representing male dancer, confirms the technique of manufacture and general modeling of Harappan style (Fig. 3.21). Again, this 10 cm high torso's head and arms are missing while legs are partly broken. Though, its individuality lies in its somewhat twisted body with lifted leg, posed as dancer. Holes on the back of the neck were probably intended to hold hair in place suggesting that the figure was almost certainly shown looking down. Marshall's reconstruction of the pose may not be far off the mark, but does show life and movement and should be placed in the high rank of the Harappan art (Possehl 2002: 112). Though, in the midst of the Harappan sculptures, the most beguiling piece of art is probably the bronze statue of nude Dancing Girl from Mohen-jo-Daro (Fig. 3.22). Nearly 11 centimeter in height, the figure is shown standing upright in a relaxed pose with head slightly tilting back. Right leg is somewhat straight whereas the left one is bent at the knee. The right hand posed against the right hip, while the left hand is heavily festooned with bangles, rests on the left knee. From the back of the neck descends a necklace with the pendant dangling between the breasts. Her hair is tied in a bun hanging low on the back of the neck. The ankles and feet are missing in this sculpture but there is one more bronze sculpture from Mohen-jo-Daro itself, in which limbs are adorned with anklet. Almost every archaeologist considers it as one of the masterpiece of the Harappan art because of the vivacious depiction of various features in this small figurine. Apart from these, few more sculptures, survived in the form of human heads resembles in their facial features with that of Priest King. Most of these human heads are reported from Mohen-jo-Daro. Another sculpture reported from Mohen-jo-Daro is a seated male figure of which, head is missing. This statue is little over 29 centimeter in height and is made of grey alabaster. This figure is shown wearing some garment covering left arm just like that of Priest King. Its left arm is placed just outside the left leg, which is raised and bent at the knee, whereas the right hand rests on the right knee. However, it is unfinished and shows chisel marks of the preliminary stone dressing. The same-seated pose has been proposed for the priest king (Fig. 3.23). In this milieu, it is quite startling that none of the Harappan sites found in India revealed such sculptures except Dholavira from where, recently, seated male figure carved in stone had been reported. Then again, this sculpture is also broken and not much is known in details.



Fig. 3.19 Steatite sculpture of “Priest King” from Mohen-jo-Daro
(courtesy J. M. Kenoyer)



Fig. 3.20 Stone sculpture of male torso from Harappa
(courtesy J. M. Kenoyer)



Fig. 3.21 Stone sculpture of male dancer from Harappa
(courtesy J. M. Kenoyer)



Fig. 3.22 Bronze statue of “Dancing Girl” from Mohen-jo-Daro
(courtesy J. M. Kenoyer)



Fig. 3.23 Seated stone male figure from Mohen-jo-Daro
(courtesy J. M. Kenoyer)

It is quite sphinx-like to not have sculptural remains of animals in real sense, despite the fact that variety of them, both in the form and kind, are represented in the Harappan seals, terracotta and pottery drawings. Though, few animals found depicted in copper or bronze, gold or silver and stone or faience are in the form of miniature figurines; mostly as ornaments, forming a part of necklace representing sheep, rabbit, monkey, buffalo, squirrel, bull etc., nevertheless, these representations can not be treated as sculptures. However, the hoard from Daimabad which was discovered accidentally consists of four animal sculptures. Although, these sculptures are of Late Harappan period still considerably fills the fissure. It includes a pair of bull, an elephant, a rhinoceros and a buffalo. All of them are still in excellent state of preservation and has not lost their pristine features. All four of the sculptures are solid cast and reported to weigh over 60 kg. Of these, the chariot and bulls are remarkable so far their workmanship is concerned. It consists of an elaborate chariot yoked to two bulls and driven by a man standing in a chariot (Fig. 3.24). Though the chariot has some Harappan features, this vehicle has no analogous in the Harappan civilization and stands unique. The elephant is the largest of the three animals in the hoard, which stands on a platform with four brackets beneath, pierced to take axels. The treatment of the rhinoceros inevitably recalls that of the Harappan seals and provides comparative examples. The same is true to the buffalo and reminds the figures of

buffalos, both in terracotta and cast copper or bronze from Mohen-jo-Daro. All these are provided with wheels. Because of the size it gives the impression that it must have been used in the processions. They are in fact the finest of their kind in the whole range of Indian Protohistoric art and might have been created by an extremely skilled sculptor (Dhavalikar 1993).

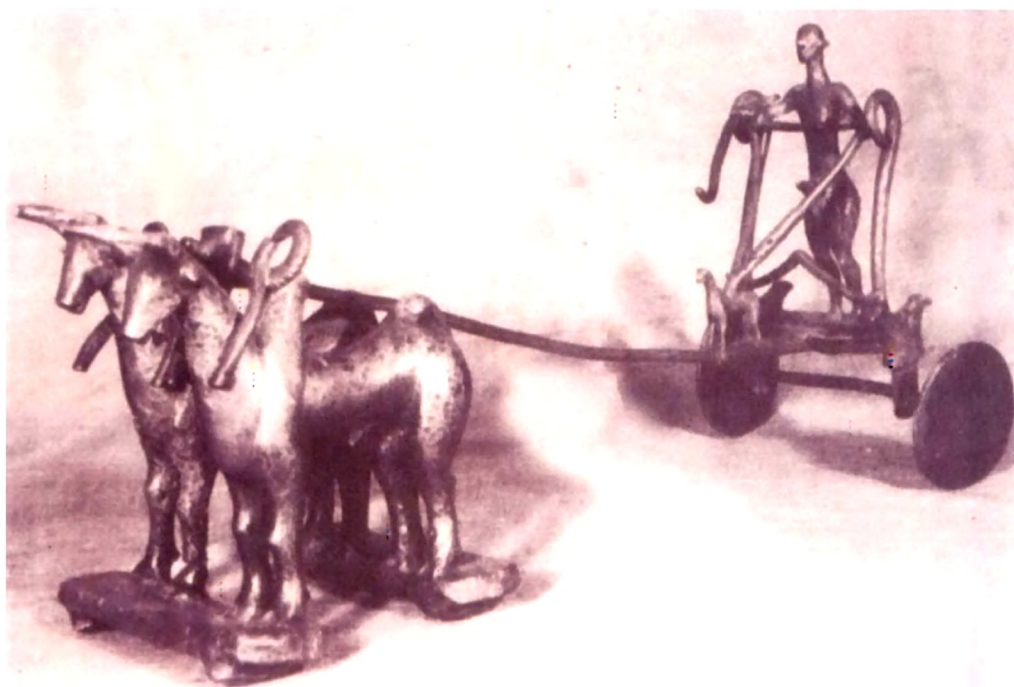


Fig. 3.24: Bronze Chariot from Daimabad

(courtesy V. H. Sonawane)

In terms of quantity or quality the Harappan sculptural remains cannot be compared with the repertoire of either Mesopotamia or Egypt, neither we find variety of expression nor the range of exploitation of media which both these cultures witnessed. However, an assortment of Harappan sculptures reflects on their own developed art concept. Moreover, if we look carefully at the total assemblage of Harappan sculptures, it reveals that their stylistic tradition was not homogeneous and uniform. One could see a difference in composition, form and technique between the 'Priest-King' and 'Dancing girl' found from Mohen-jo-Daro. On the whole, although, examples of Harappan sculptures are rare, the art tradition of the later Indian subcontinent apparently owes a lot to them. This can be inferred precisely from the

modeling of the Harappan torsos, which are reminiscent of the sculptures of the historic period.

Apparently, though the Harappans could not produce big works of art on a large scale, they excelled in those of small compass. Their most notable artistic achievement was perhaps in their sealing engravings, especially the animals, which they delineated with powerful realism. The cult scenes show a refreshing originality, but because of subject matter depiction there was no scope for detailed artistic expression. Though the meaning and use of inscribed seals are still shrouded in mystery, partly because the script still remains undeciphered, but certainly these were used to stamp bales of traded goods and may be more as token of power and prestige besides amulets.

Until recently, it was believed that the Harappan civilization along with its spectacular achievements, evolved quite mysteriously and then disappeared suddenly, leaving little or no legacy for later cultures. However, as new sites have been discovered and previously excavated ones were restudied it became apparent that it disintegrated gradually, leaving the field open for the development of subsequent Protohistoric cultures and the second urbanization during the first millennium B.C. In fact, there are significant continuities in subsistence activities, art and architecture, technologies, economic set up, urban organizations and possibly socio-ritual as well as political structures. Even today in the modern cities, towns and villages of the subcontinent one can see the legacy of the Harappan culture reflected in traditional arts and crafts as well as in the layout of houses and settlements (Lal 2002).