

## **The Theoretical Aspect of the Enclosure Walls of Harappan Culture**

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Archaeologically an enclosure wall can be defined as a protective measure for the settlement or a habitation area with or without moat or ditch and sometimes even with the gateways, guard rooms and watch towers. Wheeler's discovery of the enclosure wall (defense wall comprising with gateways and tower) around a mound at Harappa imparted a new dimension to the investigations of the Harappan culture. In the days past a few scholars had indeed suspected the existence of the defense (enclosure) wall in the ruins of the Harappan culture.

The evidences of the enclosure wall are from the Early Harappan level of Kot Diji, Kalibangan, Banawali, Bhirrana, Dhalewan, and Dholavira and in the Mature Harappan level from Sutkagendor, Mohenjo-daro, Alimurad, Kot Diji in Sindh, Dhalewan in Punjab, Kalibangan in Rajasthan, Banawali, Mithatal, Bhirrana and Balu in Haryana, Surkotada, Dholavira, Juni Kuran, Desalpur, Lothal, Rojdi, Kuntasi and Bagasra in Gujarat and Kutch.

The ruins of enclosure wall are certainly interesting in themselves. The enclosure wall were built to protect the habitation area but from whom? Evidence from Mohenjo-daro represents the massacre which is by some scholars was a mythical massacre. Evidences of warfare or weapons related to it have not been recovered. So various questions arise regarding to the massive walls enclosing the settlement with towers and gateways giving it shape of a fortifications with moats also. Firstly one thing comes to our mind that the Harappans were afraid of loosing something i.e. their precious economic strength. Enquiries into the social and political organization have not been discussed due to shaky archaeological evidences. However, some scholars have tried their best to discuss the above aspect. On the

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basis of the evidences of enclosure wall, a theoretical issue has been taken up to discuss the real purpose of the enclosure wall, its origin and development and also enable us to guess the nature of the dangers which Harappans were expected to meet.

### **Sites with Enclosure Wall**

#### **Sutkagendor**

Sutkagendor is a low rocky plateau located on the extreme eastern edge of the wide Dasht Valley about 45 kms. from present Arabian sea coast. The site (Stein 1931: 60-61; Dales 1962: 3; 1962: 89) was enclosed by measuring 180 m X 103 m wall joining into two natural ridges by thick 7.5 m wide at the base on the eastern side. The enclosure wall made up of dressed –stone wall having a gateway and bastions. Piggott (1950:173) observed on the basis of surface indications that the gateway was located on the southern wall, at the western corner, with a 2.4 m wide passage and flanked by a massive rectangular towers or guard rooms. Thapar (1976: 5) observations were that the principal entrance to the site lay in the south-western corner where it seems to have been guarded by towers.

#### **Mohenjo-daro**

Mohenjo-daro is situated on the western bank of the Indus, in Larkana district of Sind province of Pakistan. The whole complex nearly 200 ha can be divided into two parts-the citadel and the lower town. These two distinct mounds are separated by a 200 m wide low and open space. The citadel or western mud measures 365.5 m X 183 m stands on an artificial platform of clay enclosed by a 6 m thick mud-brick retaining wall. After two enlargements, this platform reached the height of about 7 m. Further platforms of varying height were constructed on it as the base of the building alone. The surrounding retaining wall was also raised higher, thus creating an enclosure wall around the citadel as a whole, complete with bastions and gateways.

The original area of the eastern mound lower town or is subject to some uncertainties. The present irregularly shaped area is 820 m long from north to south and 720 m wide at the base. The area covering the present eastern or lower town was also raised on a platform, although of a lesser height than the western or citadel one. A more than 9 m thick wall was traced in the northern section of the western perimeter of the lower town. There was a massive construction composed

mainly of huge solid mud-brick embankments with baked brick retaining walls in the southern section of this side. It is suspected that the platform of the lower town also was supported by a thick enclosing retaining wall (Jansen 1984: 9-22).

### **Kot Diji**

The site of Kot Diji in Sind is situated 43 km from Mohenjo-daro across the Indus. The site was divided into citadel and a lower town. It is suspected that it was enclosed by a wall in the Early Harappan culture and subsequently in the Mature Harappan culture. At its widest point the stone work of the enclosure wall is only 3 feet but most of the wall is only about one foot wide (Khan 1965: 29-30). The Kot Dijians built a citadel with towers at regular intervals and a lower township. The enclosure wall had a footing of undressed stones and the upper portion of mud bricks. The wall had a height of 4.5 m and its inner face had a slant of 8.5° and was reinforced in intervals by stone revetments bounded with stone courses at the bottom. The enclosure wall was having foundation of mud with stone footing and the system of riveting it with stone and giving an inner slant of 8° to save it from collapsing inside, when the residential buildings were adjoining the enclosure wall (Khan 1965:29-31), is a testimony to the engineering skill of the early Harappans.

### **Ali Murad**

Ali Murad is located near Lake Manchar in Sind. The larger of the two mounds covers an area of 1100 ft X 1000 ft.. N. G. Majumdar (1934:89-91) traced a long enclosure wall of irregularly dressed stone blocks for 170 ft on the south-east of the mound and partially on the north and east also. The mound of 8 m height was surrounded by an enclosure wall made of stone in irregular squarish area about 210 m in each way. The roughly dressed stone walls were about 1.40 m in width. There is an opening in the eastern side of the wall. It is suspected that it was used as a gate. There are visible traces of innumerable stone walls.

### **Dhalewan**

The ancient site at Dhalewan in Mansa district, Punjab is situated about 30 km north east of district headquarters. The Early Harappan settlement was enclosed by a mud-brick wall running towards north-west to south-east had a rectangular projection measuring 8 m X 6 m at the north-western end (Bala and Kant 1999-2000: 42-44).

**Harappa**

Harappa, some 3.5 miles in circuit, lies beside an old confluence of two branches of the river Ravi, in the Sahiwal district of Punjab province of Pakistan. The mound AB was enclosed by a wall which falls roughly within the limits of a parallelogram, 400 yards by 200 yards, and there was a complex western gate system with terraces designed for ceremonial purposes, and provided with guard-rooms at the outer angles. The main entrance was perhaps represented by the gateway on the northern side. The lower most section of the enclosure wall is made up of a mud and mud brick which is 10-20 feet high. On this enclosure wall stood the main wall of mud-brick battered externally and internally varies in width- in one cutting it was 40 feet and a height of upwards 35 feet. Its function was to raise the base of the defenses above flood level and was designed as an embankment against the inroads of the flood water. Externally the wall was reverted with a facing of baked brick on the outside, battered back to a shape of 23-31 degrees from the vertical and reinforced by rectangular towers or salient, some of which were carried higher than the main wall, as suggested by the surviving masses of mud-brick core. Towers or Salient were along the walls at regular intervals. A long period of wear and tear necessitated the reconstruction of the original baked brick revetment which was considerably thickened in some places (Wheeler 1947: 64-65)

**Kalibangan**

Kalibangan is situated on the left bank of the dried up Ghaggar course in the Ganganagar district of Rajasthan. The Early Harappan settlement was surrounded by an enclosure wall in the shape of a parallelogram 250 m X 170 m in extent. The first phase of the wall was made of mud bricks 30 cm X 20 cm X 10 cm laid to a thickness of 1.90 m. A second phase of construction brought the thickness of this wall up to 3 or 4 m, varying from place to place. The inner and outer faces of the enclosure wall were plastered with mud.

The Mature Harappan settlement plan of Kalibangan is significantly different from the Early Harappan. There are two parts: the high Mound, named KLB-1, is located to the west, covering most of the Early Harappan settlement and to the east is the lower town named KLB-2. It is significant that the 'citadel' area was divided into two almost equal parts by a partition wall running east west. The old entrance in the north western corner of the high mound was once again in use. The Harappan settlers used the old eastern wall of the Early Harappan settlement as

the northern part of the western wall of the new lower town. This reduced the width of the high mound by about 60 m but created a high mound that was exactly twice as long as it was wide and was also well fortified, although the southern half was stronger than the north (Lal 1979). A 3 to 7 m thick mud-brick enclosure wall with two structural phases and salient placed at regular intervals encircled to western mound 240 m X 120 m which was divided into roughly equal northern and southern sectors by a common equally thick wall.

### **Banawali**

R.S. Bisht undertook the first five seasons of excavation at Banawali, district Hissar in Haryana, lies considerably upstream on the right bank of Ghaggar between Hissar and Sirsa. The settlement was enclosed with moat, enclosure wall having a gate complex (Bisht 1982). The site plan of Banawali shows a 300 m X 250 m irregularly aligned rectangle covering about 9 ha lay within a single enclosed area. About one third of the area on the southern side has been taken up by 'acropolis' demarcated from the 'lower town' by roughly arch shaped enclosure wall measuring 5.40 to 5.47 m thick. The most noteworthy feature of the enclosure wall was that with it there was a provision of moat 5.70 m to 6.50 m wide at the top and 3.60 m deep has been traced along the eastern wall of the site and it has been inferred that it existed on the three other side as well. There was an elaborate gate complex in the thickness of the eastern wall which consisted of a frontal moat flanking bastions with broad passageway, interconnection between the citadel and the lower town (Bisht 1982; 1987; 1998-99)

### **Bharrana**

The site is located in the Fatehabad sector of Haryana measuring 150 m x 220 m. Recent excavation carried out by L.S. Rao has yielded enclosure wall in the Early Harappan phase, which is transitional to Mature Harappan and the enclosure wall was used in the mature phase also. The width of the enclosure wall is 2.15 to 3.75 m. The extant height of the wall is 5 to 6 courses (Rao *et al.* 2003-2004: 20-23).

### **Balu**

Balu located on the bank of a tributary of Sarasvati in the Kaithal district of Haryana Evidence of an enclosure wall from the Mature Harappan culture

measuring 108 m x 96 m and general width 12 m. was revealed. An entrance has been located in the south-eastern corner of the wall (Kesarwani 2001:141-52).

### **Rakhigarhi**

Rakhigarhi is located on the right bank of the dry course of the Drisadvati river in the Hissar district of Haryana. A cluster of seven mounds marked RGR-1 to RGR-7 cover a total area of about 105 ha. Due to its huge size, was comparable to all other metropolitan sites of the Indus civilization (Nath 1997-8: 39-45). RGR-5 and RGR-2 is demarcated to be citadel of the Mature Harappan Culture. The enclosure wall here was made of mud-bricks having a veneer of the burnt- bricks both on the inside and outside (Nath 1998-9:46-9).

### **Lothal**

Lothal located at a distance of about 80 km. south east of district Ahmedabad, village Saragwala sandwiched between the Sabarmati and the Bhogavo river. The enclosure wall enclosed the 'acropolis' area as well as the lower town. The massive mud wall running 300 m north-south and 400 m east-west was reinforced by baked brick walls on the northern side. The 'acropolis' was trapezoid on plan measuring 117 m east-west and 136 m on the north and 111 m on the south (Rao 1973).

### **Surkotada**

Surkotada is located 160 km. north-east of Bhuj in Kutch district of Gujarat. It had citadel and lower town forming a single unit township. The enclosing wall was with gateways. The characteristic feature of the enclosure wall is that rubble was used with mud and mud-bricks for its constructions. The citadel area was enclosed by 7 m wide mud and mud-brick enclosure wall on which rubble was used from outside and mud plastered from inside with a mud brick buttress on the east. The wall round the residential area was 3.25 m wide which had its gateway on the south (Joshi 1990). The citadel and the lower town was rough square on plan with a common wall in between and opening through which provided access from one to the other. Two guard rooms were erected on the either side of the enclosure wall. A gateway-passage 1.7 m wide was built running north-south partition wall towards the eastern side of the citadel. The residential area had its own gateway-complex on the southern enclosure wall. It consists of a wide passage and two rectangular guard rooms built with rubble on both sides of the passage.

### **Dholavira**

Dholavira is a village in the Bhachau taluka of district Kutch in Gujarat. The mounds are located 1 km north west of the village and are surrounded by two seasonal 'forrents' Mansar and Manhar. It was the most meticulously designed and strongly enclosed by a wall (Bisht 1991:76-77). Dholavira has exposed three main divisions of the settlements i.e. the citadel area, the lower town and the middle town. The overall enclosure consists of the citadel, the middle town and the lower town. The citadel and the middle town had their own enclosure wall. The citadel was further divided into two parts, which have been designated by the excavator, as Castle and Bailey. The lower town directly protected by the outer wall forming a rectangle on plan and oriented along the cardinal directions, measures approximately 770 m east-west and 615 m north-south. The enclosure wall made of mud brick and was provided with stone veneer at strategic places, particularly at the corners. Bastions were also constructed at the different points which were rectangular or square (Bisht 1991: 71-82). The castle was enclosed by a wall whose extant height is 9 m and width is 15.5 m. The middle town located to the north of the citadel and separated from it by an open space, used as stadium, had its own enclosure wall. The enclosure wall was oriented along the cardinal directions (Bisht 1989: 397-408; 1991: 71-82).

### **Desalpur**

The site is located on the northern bank of the stream, Bamu Chelo, a tributary river Dhrud. It is near Gunthuali in Nakhatrana taluka, kutch district of Gujarat. It was enclosed by a square massive stone rubble wall reinforced by bastions and riveted with mud bricks and gateway. The enclosure wall has a based width of 4 m and rises to an extant height of 2.5 m. In the north-west corner of the wall is an additional feature – a mud brick filling rising to a platform of the top, with a stone veneer wall its outer and inner sides. It is suspected that the originally the enclosure wall might have been entirely or mostly of mud brick and stone veneer and was specially reinforced by rubble – only in such parts of the wall as were strategically important. The stone blocks of the veneer are of substantial dimensions, one particular lowest course block having being a beam more than 3 m long 1.3 m high (Joshi 2008: 87). Baked brick is not much in evidence, the reason apparently being the easy availability of sandstone of well laminated character in the geological formations all over Kutch. The location of the gateway entrance into the town is elusive, particularly since a great part of the enclosure wall on the south side has

been eaten away by the periodic floods of the wild stream which acted as a defense but at the same time a threat to the town.

### **Kuntasi**

Kuntasi located on the right bank of a small river Phalgi which discharges at the eastern edge of the Gulf of the Kutch. It has yielded the citadel with a double enclosure wall of boulder and mud set 15 to 25 m apart having a square watch tower on the riverfront. The 3 m wide gateway was in the east. It was flanked by rectangular bastion. There were a few houses outside the enclosure wall but it seems that any lower town did not exist. The structures were made of rubble and mud mortar (Dhavalikar *et al.* 1996). There were rooms along the passage of the gateway which might have been used as a guard rooms. Due to industrial township it was carefully guarded.

### **Rojdi**

Rojdi (present name Shrinathgarh) is situated on the Bhadar river, about 34 miles south of Rajkot district, in the central Saurashtra. Rojdi was enclosed by a 2 m thick wall measuring 500m in length and 150m in breadth with the gateway and a watch tower (IAR 1983-4: 19-20; 1985-86:19; Possehl and Raval 1989).

### **Bagasra**

Bagasra locally known as Gola Dhoru is situated about half kilometer south east of Bagasra village on the southern shore of the Gulf of Kutch in Maliya Taluka of Rajkot district. The site was enclosed by a wall measuring 160 m x 120 m roughly rectangular in layout (Sonawane *et al.* 2003: 21-50; Bhan *et al.* 2004: 153-58; Patel and Rajesh 2006).

### **Babarkot**

Babarkot is situated on the Gomanadi in Paliyad village, Botad taluka of Bhavnagar district. Remains of an enclosure wall having foundation partly of the stone and partly of black cotton soil were encountered in the southern and western periphery of the mound. The width of the western enclosure wall was 4.5 m and the same at the southern end was found to be 3 m wide (IAR 1990-91; Rajesh and Patel 2007: 48).

Juni Kuran



The site of Juni Kuran located on the north eastern corner of the Pascham Beyt Island in Taluka Bhuj, district Kutch was reported during the course of exploration carried out by J.P. Joshi in 1968-69, as 'Kotara' near the village of Juni Kuran at roughly 42 km to the north west of Dholavira. The settlement is roughly rectangular in shape with an average height of 7 m. The structure made out of mud brick and stone were observed continuously from the Mature Harappan to Late Harappan level. The excavations yielded enclosure wall with gateways, middle town and two stadiums. The citadel is located in the northern part of the enclosed settlement area. The citadel area measured 72 m x 92 m whereas the enclosed area was 220 m x 225 m. The walls were made of rubble set in mortar (Pramanik 2003-2004: 45-67).

#### Kanmer

Kanmer locally known as Babarkot is situated 35 km east of Rapar in eastern Kutch. The settlement measuring 115 m x 105 m and height 6 m is oriented along cardinal directions and consists of two divisions. An eastern division which is higher and larger is the upper town and low line portion is the lower town. The upper town enclosed with 6 m wide rubble wall has three gateways from west, east, and southern sides. No enclosure wall is visible in the lower town (IAR 1985-86; Kharakwal *et al.* 2005:115-123).

#### Concluding remarks

The smaller section towards the west, which is generally located on a high ground, called citadel or upper town. The second, the larger section, generally located on a slightly lower ground, called lower town. Thus these are two unit sites (Gupta 1996: 105) but recent excavations show that there are more than two sections or mounds. The major sites- Harappa, Mohenjo-daro, Kalibangan are surrounded by separate enclosure wall. Surkotada, Lothal, Dholavira enclosed by a single wall thus creating a single unit sites. The sites enclosed by massive walls was an important division from where administration and vigorous discipline was exercised as we see at the Lothal that the city was extended beyond the south wall in the phase III, when it was 2 km circuit but the plan of the city remained unchanged in the phases III and IV, which shows strict and authoritative vigilance. The enclosure walls may have been used for the purpose of defense against the supposed to be armies of the enemies; the archaeological evidence is not conclusive except at Mohenjo-daro. Evidence of massacre at Mohenjo-daro and treasures is significant. What follows is an account of what this evidence is and how it might be interpreted.

Such massive enclosure walls are one of the most important components of the fortification functioning as military architecture and it was created on all the major sites of Harappan Civilization because they were afraid of loosing their economic precious wealth. These enclosure walls are also indications of changing of social system and political organization forming a state society. The enclosure walls were built by the rulers/kings and enforce the power on labors and providing security to whole community. The silver ornaments from Kunal, Greath Bath, Pillared Hall and statue of 'Priest King' from Mohenjo-daro, granary, slave rooms from Harappa, fire altars from Kalibangan, Rakhigarhi, Lothal and ten letter inscription from Dholavira is significant which was found on the northern gate of the citadel. Inscription may have been indication for the strangers by the rulers to welcome them for the business matters as citadels were the residents of the rulers. The enclosures were the hall-mark of social authority over the area they commanded. But more research work is needed to establish that enclosures (component of the fortification) are the criteria of changing social system/division of class or existence of caste system and formation of state.

## REFERENCES

- Bala Madhu and V. Kant 1999. Dhalewan- An Early Harappan Site in Punjab, *Puratattava* 30: 42-44.
- Bhan, K.K., V. H. Sonawane, P. Ajhitprasad and S. Pratapchandran 2004. Excavations of an Important Harappan Trading and Craft Production Center at Gola Dhoro (Bagasra) on the Gulf of Kutch, Gujarat, India, *Journal of Interdisciplinary Studies in History and Archaeology*, 1 (2): 153-158.
- Bisht, R. S. 1982. Excavations at Banawali: 1947-77, in G. Possehl (ed.) *Harappan Civilization*, Delhi: O. U.P & I. B. H.
- Bisht, R.S. 1987. Further Excavations at Banawali: 1983-84, in B.D. Chattopadhyya and B.M. Pandey (eds.) *Archaeology and History*, Vol. I, Delhi: Agam Kala, pp. 135-56.
- Bisht, R. S. 1989. The Harappan Civilization of Kutch: An Ergonomic Study with Reference to Dholavira and Surkotada, in K. Deva and L.Gopal (eds.) *History of Art*, Delhi: Abhinav Publications, pp. 267-72.
- Bisht, R. S. 1991. Dholavira, New Horizons of the Indus Civilization, *Puratattava*, 20: 71-82.

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- Bisht, R.S. 1998-99. Dholavira and Banawali: Two Different Paradigms of the Harappan Urbis Forma, *Puratattva* 29: 14-37.
- Dales, G. F. 1962. Harappan Outposts on the Makran Coast, *Antiquity* 36: 86-92.
- Dales, G. F. 1964. A Mythical Massacre at Mohenjo-daro, *Expedition* 6: 36-43.
- Dhavalikar, M.K., M. R. Raval and Y. M. Chitalwala 1996. *Kuntasi: A Harappan Emporium on West Coast*, Pune: Deccan College.
- Gupta, S. P. 1996. *The Indus Saraswati Civilization*, New Delhi: Pratibha Prakashan.
- IAR. *Indian Archaeology-A Review*, New Delhi: Archaeological Survey of India.
- Jansen, M.1984. Theoretical aspects of structural analysis for Mohenjodaro, in *Reports on the field work carried out at Mohenjodaro, Pakistan, 1982-83 by the IsMEO-Aachen University Mission*, ed. M.Jansen and G. Urban, Interim Reports, vol.1. RWTH/IsMEO, Aachen/Rome. pp. 39-62.
- Joshi, J. P. 1990. *Excavations at Surkotada*, Delhi: Archaeological Survey of India.
- Joshi, J. P. 2008. *Harappan Architecture and Civil Engineering*, New Delhi: Rupa and Co.
- Kesarwani, A. 1984. Harappan Gateways: A Functional Reassessment, in B.B. Lal, and S.P.Gupta, ( eds.) *Frontiers of the Indus Civilization*, Delhi: Books & Books, pp.63-73.
- Kesarwani, A. 2001. Balu : A Fortified Rural Settlement in Haryana, *Puratattva* 31: 141-52.
- Khan, F. A. 1965. Excavations at Kot Diji, *Pakistan Archaeology* 2: 13-85.
- Kharakwal, J. S., Y. S. Rawat and T. Osada. 2005. Harappan Sites in Karachi and New Opportunities of Tourism, ed. A. Maraia, *Heritage Tourism exploring the Future (Seminar on Heritage Tourism)*, pp.115-123, Gandhinagar: Government of Gujarat.
- Lal, B. B. 1998. *India 1947-1997: New Light on the Indus Civilization*, New Delhi: Aryan Books International.
- Majumdar, N. G. 1934. *Explorations in Sind*, Delhi: Archaeological Survey of India.
- Marshall, Sir John. 1931. *Mohenjo-daro and the Indus Civilization*, London: Arthur Probsthain.

- Nath, A. 1997-8. Rakhigarhi: A Harappan Metropolis in the Sarasvati-Drishadvati Divide, *Puratattva* 28: 39-45.
- Nath, A. 1998-99. Further Excavations at Rakhigarhi, *Puratattva* 29: 46-49.
- Patel, A., and S. V. Rajesh 2007. Excavated Chalcolithic Sites in Gujarat, *Puratattva* 37: 46-67.
- Possehl, G. L. and M. N. Raval 1989. *Harappan Civilization and Rojdi*, New Delhi: OUP and IBH Publishing and the American Institute of Indian Studies.
- Piggott, S. 1950. *Prehistoric India to 1000 B.C.*, Baltimore: Penguin Books.
- Pramanik, S. 2003-4. Excavation at Juni Kuran 2003-4, A Preliminary Report, *Puratattva* 4: 45-67.
- Rao, L. S. 2003-4. Unearthing Harappan Settlement at Bhirrana (2003-4), *Puratattva* 34: 20-23.
- Rao, S. R. 1973. *Lothal and the Indus Civilization*, Bombay: Asia Publishing House.
- Sonawane, V. H., P. Ajhit Prasad, K. K. Bhan, K. Krishnan, S. Pratap Chandran, A. Majumdar, A. K. Patel and J. Menon 2003. Excavations at Bagasra 1996-2003: A Preliminary Report, *Man and Environment* XXVIII (2): 21-50.
- Stein, Sir Aurel 1931. *An Archaeological Tour in Gedrosia*, Delhi: Memoirs of the Archaeological Survey of India 43.
- Thapar, B. K. 1976. The Concept of the Citadel in the Indus Civilization, Paper Presented to the 50<sup>th</sup> International Congress of Human Sciences in Asia and North Africa, Mexico.
- Wheeler R. E. M. 1947. Harappa 1946: The Defences and Cemetery R 37, *Ancient India* no. 3: 58-130.