

ROLE OF FORTIFICATION IN INDUS AND POST INDUS PERIOD: ARCHITECTURAL INSIGHTS THROUGH POLITICAL ARCHAEOLOGICAL AND ETHNO ARCHAEOLOGY

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Abstract

fortification walls around the town and cities are known important architectural legacy globally and particularly in south Asian urban history, from ancient world up to date the fortification has served special purposes and functions in urban system. Archaeological excavations in different countries shows the evidences of fortifications, Mohen jo Daro, Harappa, Kot Diji, Dholavira, Kalibangan, Rakhigarhi, Ali Murad Indus period sites in south Asian and Ur, Urak are the fine examples of west Asian regions of fortifications. In Sindh Pakistan many contemporary examples of fortifications are available, Buddhist period sites, including Dhamrah jo Daro in district Nawab Shah, the fortifications of, Rohri, Sehwan, Thatta, Banbhore, Khuda Abad, Hyderabad are continuation of early urban fortification. Early scholarly discussions conclude fortification in Indus as strategic purposes but archaeological studies proved such architectural structures did not merely served strategic purposes but also safeguarded the inhabitants from natural calamities like floods, erosion, administrative, social and symbolic icon. In Indus civilization urbanization was based on citadel, lower city, sometimes citadel or both citadel and lower city were fortified. This paper focuses the significant role of fortification in south and west Asian urban traditions, and its continuity after Indus up to modern historical urban landscape.

INTRODUCTION

Indus civilization reveals the ancient urban traditions in world, it developed and flourished on river Indus along with surrounding regions during 2600 to 1900 BCE, this civilization is well known for first town planning, engineering based architecture, standardized weights, and social organization (Kenoyer 1998). Excavations has exposed towns and cities' urban planning with grid pattern, streets with covered drainage, public wells, uniform brick ratio & significant public architecture.

One of salient features of Indus urban architecture is the fortifications, majority of Indus towns and cities were encircled by gigantic walls around

citadel area, mostly separated by residential sectors. Granaries, administrative offices, socio religious spaces, aquatic resource management and other public places were flourished. Archaeological excavations reveals fortifications were mandatory not as an option in Indus to protect urban spaces & assets.

Constructing fortifications wasn't new to peoples of Indus civilization, over all in early world history defensive walls were erected to safeguard the communities from invasions, environmental calamities, political turmoil, and for social perspectives. Indus civilization solely raised for constructing fortification with mud bricks and burnt bricks, massive walls ended with town gates.

For proper understanding the Indus fortification, it is necessary to understand social and tangible aspect and functions of defensive walls. Many researchers describe Indus fortifications were basically constructed to prevent invaders (Wheeler 1968). Some of researchers suggest that fortification purpose was as strong constraint against flood and erosion (Wright 2010). Some describe defensive walls around citadel were to establish administrative writ, socio religious activities were held within walls. Continued fortification even after the down fall of Indus, emphasizes the importance of fortification from earliest civilization to medieval and modern times, defensive structures define fortifications as key feature of urban settlements.

Research Methodology: This research follows qualitative archeological research methods followed by ethno archaeological findings, comparative analysis of history, architecture, published excavation reports and survey reports. This research is supporting interdisciplinary contribution of archaeologists, anthropologists, historian and architects, Notably, Kenoyer (1998), Pessehl (2002), wright (2010), Mughal (1997) and Chakarbarti 2004). Theoretically entire data in uniform research developed broader understanding about fortification practices from Indus to historical periods.

Literature Review: Researching on fortifications particularly in Indus begun in early 20th century, initial research results moved around the work done by Sir John Marshall and Mortimer Wheeler, Wheeler said huge wall discovery from Harappa reveals that it was constructed to safeguard the city from external enemies (Wheeler 1968). His findings define fortification purely as strategic purpose architecture.

Johnathan Markenoyer was of opinion that the main purpose of defensive wall wasn't single but it included protection from environmental conditions, administrative and social control (Kenoyer 1998), Markenoyer revealed that raised platforms at citadel might be protecting the infrastructures from the floods.

Gregory Possehl broadens the debate focusing the territorial diversity inside Indus civilization, his research reveals that various settlements followed different fortification maneuvering relying on social and environmental situations (Possehl 2002).

Rita P Wright focused on connection in-between governance and architecture, she stressed that fortified citadel worked as managerial hub, where ruling class managed capital resources, coordinated urban activities (Wright 2010).

Rafique Mughal has worked mainly to study the settlements with fortifications, during survey of Cholistan he documented multiple Indus and post Indus period settlements along with fortified architecture (Mughal 1997).

Chronology of Indus fortifications in brief.

Early Indus period fortified towns and cities

1. Kot Diji- early Indus period site with fortification.
2. Amri- important early Indus mound site with defensive walls.
3. Rehman Dheri- early Indus period town site in K.P.K with rectangular fortification made with sundried bricks.
4. Kalibangan- important early Indus period site in India, with defensive walls made with unbaked bricks.
5. Banawali- Indus period settlement surrounding defensive structure.

Mature Indus fortified towns and cities.

1. Mohen jo Daro- Citadel are surrounded by high walls and raised platform.
2. Dholavira- this urban city has several complex walls enclosure for perfect settlement protection.
3. Harappa- Major urban town surrounded by fortification with gateways.
4. Lothal- famous Indus period port site with fortifications and dockyard.
5. Sarkotada- Indus period site in Gujrat India with stone defensive walls along with gateways.
6. Banawali- important Indus period site located in Haryana India, settlement pattern of Banawali is of oval shape with fortification.

7. Kalibangan- has fortified citadel and lower city.

Late Indus fortified towns and cities.

1. Rangpur- Late Indus period site in India, surrounded with defensive walls.
2. Rojdi- this site is located in Rajkot India, late Indus period site with defensive structure.
3. Bet Dwarka- coastal late Indus period site has evidence of defensive structure.

Major fortified Indus Cities: Presence of fortification in major Indus period sites highlight its significance in urban planning, citadel area of Mohen jo Daro is built on massively raised platform. The platform was bolstered through thick burnt brick wall, which secured salient buildings inclusively assembly hall, great bath, high ground of citadel explain its collective purpose as defense & flood safety (Wright 2002). Harappa is also known for earliest fortification, archaeological excavations show mud brick protective wall around citadel, walls were consolidated through bastions and doorways, which also regulated the accessibility to citadel. Inside the citadel area archaeologist exposed mega storage building structures declared as granaries parallel with administrative blocks (Kenoyer 1998). Dholavira has exemplary and unique defensive structure in Indus civilization, Dholavira settlement pattern was divided into main three divisions, citadel, middle town and lower town, and each partition had stone fortification. Main entrance and internal separated areas showed

sophisticated planning and stratified system worked (Possehl 2002).

Kot Diji was earliest stratified town site contributed in Indus urbanism in south Sindh, excavations at Kot Diji lead by F. A Khan in 1955-57 revealed sophisticated culture, popularly known as Kot Dijian culture (3300-2600 BC) continued with mature Indus period. Kot Diji has citadel and lower city, citadel was walled by mud bricks which represented special organization with controlled accessibility. Kot Dijian pottery has black painted designs on red slip, geometrical and zoomorphic images were notably with fish scale designs. Mr. B.B Lal and B.K Thapar excavated a major Indus period site with early and mature Indus periods in 1960s. Kalibangan had mud brick fortification around citadel and lower city, important findings at Kalibangan along with pottery was specialized and organized farming. This mature Indus period site was mainly effected by environmental changes. , Ali Murad, a site of Indus period located in district Dadu, researched by Ahmed Hassan Dani and other archeologists discovered stone mud fortification, Amri the important Indus period site is located in district Jamshoro, the site was documented by N.G Maujamdar, Jean Marie Casal made excavation from 1959-1962, site has its unique culture called Amrian culture, it has Indus period with early settlement with fortification. Tharro Hill was also surveyed and documented by N.G Maujamdar, possibly had defensive walls. Lotham jo Daro, Dr. Rafique Mughal has said that Lotham jo Daro has very planned settlement structures which obviously had fortification.



(Fig No.01, fortification of Banbhore site and Indus Period site of Dholavira.)

Post Indus Fortifications in Sindh

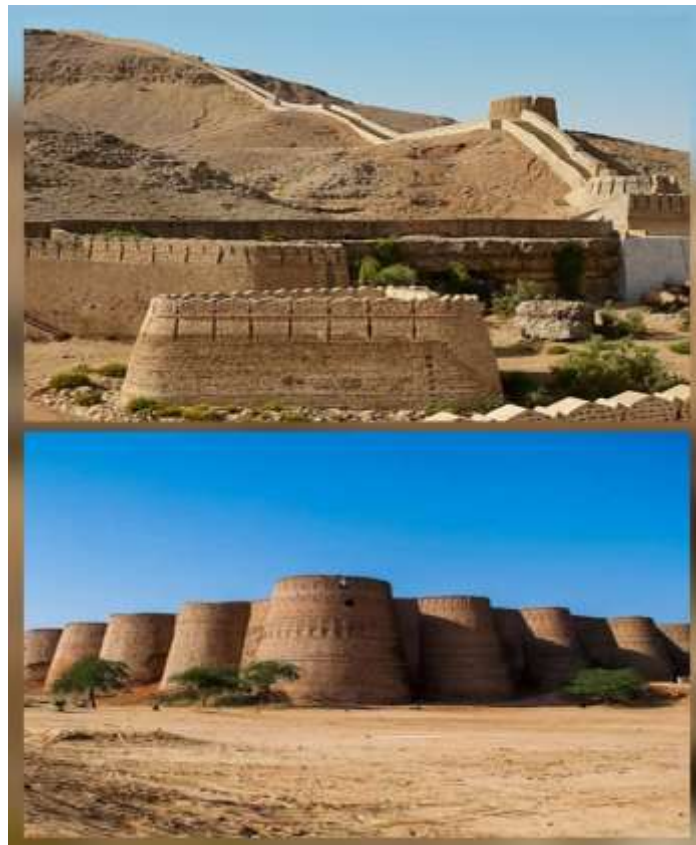
aftermath of downfall of Indus civilization 1700 BCE a major architectural transformation took place but the tradition of fortification remained intact, historical and up to modern time. Dhamrah jo Daro a Buddhist period site located in district Nawab Shah had fortification around the settlement. Banbhore a port site located in district Thatta also had mud and stone fortification, fortification has served the purpose of security and controlled economical activities. Shikar Pur the city of Sindh during the Talpur and British era was fortified city with four main gates,

few gates still survive today. Sehwan is located in Jamshoro district, this Sehwan town was fortified, and additionally Sehwan fort regulated the trade and communication. Thatta, during Samma and Mughal era, this medieval historic city was well known for educational, Political, economic and trade activities. Thatta was fortified. Rohri, this fortified city located on the Indus River, in district Sukkur, his historical and strategic location made it more important to be fortified. Hyderabad, Umer Kot, Khuda abad and Nasarpur had also forts and fortifications.

Tentative list of forts in Sindh in brief.

EARLY HISTORIC FORTS IN SINDH			
S.No	Fort Name	Location	Date
1	Banbhore	Thatta	1 century-8 th
2	Aror	Sukkur	Early historic
3	Sehwan Fort	Jamshoro	600 BCE
MEDIEVAL PERIOD -8 - 16 TH CENTUARY			
1	Umer Kot	Umer Kot	11 th century
2	Bakhar Fort	Sukkur	10-12 th century
3	Kalan Kot	Kheerthar Mountain	Medieval Period
4	Thatta fort	Thatta	Samma Period (1350-152 CE
5	Kalan Kot	Thatta	13- 14 th century

KALHORA PERIOD 1701-1783			
1	Pakko Qilo	Hyderabad	1768
2	Khuda abad	Dadu	18 th century
TALPUR DYNASTY 1783-1843			
1	Kot Diji Qilo	Khairpur	1785-1795
2	Nauon Kot	Mirpur Khas	1814
3	Rani Kot	Jamshoro	1812 (Rebuilt ,No exact date available)
4	Manhora Fort	Karachi	1797
5	Dalel Kot	Nawab Shah	18-19 th century
6	Kalan Kot		17 th century
7	Shah garh Qilo	Rajhistan	18-19 th century
8	Diplo fort	Thar parkar	17-18 th century
9	Islam Kot	Thar Parkar	18-19 th century
10	Chachiro fort	Thar Parkar	17-18 th century
11	Ghauspur Fort	Chachiro	18-19 th centaury
12	Udero lal fort		17-18 th century



(Fig. NO. 02 after Indus, Fort fortifications in Sindh. Source: Dawan.com)

Discussion

the purpose of fortification was protection and administrative control over economy and masses, almost every Indus site has fortification, outside of Indus in west Asian region, Mesopotamia also had fortifications, there can be many other ways to protect settlements, through defensive walls or constructing forts, forts were the transformation of citadel fortifications, usually citadels were surrounded by fortifications inside the cities and town but later on fortifications were moved outside of the cities where massive forts were constructed for both residential and strategic purposes. Digging ditches around the city in times of war was also effective way to protect settlements, in 627 A.D prophet Muhammad (P.B.U.H) ordered to dig a trench (Khandaq) around the city of Madinah to Prevent enemy's siege, that defensive maneuvering worked and protected the city, Khandaq worked as fortification (Encyclopedia Britannica). The examples of digging deep trenches are also the part of history of Sindh, many cities and areas are also called Khahi (Deep trench) has familiarity linked to war strategy to dig deep trench during war times in early history.

Results

Research shows that fortification was architectural feature in Indus urban settlement, almost major Indus cities, towns consisted citadel, residential area, lower town along with door ways. Defensive walls works fortifications as defense, symbolic magnificence, environmental protection and administrative control. Ethno archaeological studies show the continuation of fortification from Bronze Age to modern historic period in south Asia particularly in Sindh.

Conclusion: fortifications in Indus civilizations was basic part of urban planning, tradition of fortification continued for thousands of years in south Asia. Archaeological studies shows that Indus cities and town well planned with marvelous architectural features including citadel area, lower towns, fortifications and gateways to protect and organize urban spaces. Multipurpose type of defensive walls describe the diversity within Indus civilization, habitat modification, administrative

management, emblematic power were inclusive in their architecture. The legacy of Indus fortification can be witnessed within medieval and up to modern era. Ethno archaeological studies shows same continuation in modern settlements pattern in south Asia and Sindh.

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