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Historic civilization: Geographic impact

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Abstract

Land, landscape and soil have major implications on physical, economic, social and cultural development of a region. The three great ancient civilizations had also deep rooted in the earth with the prevailing and inherited milieu. The Harappan Civilization, once flourished in ancient time, lasted for hundreds of years covering present day India, Pakistan, Afghanistan, Iran and Iraq which have nourished by the more or less essence of physiographic environment. The manifold reasons of initiation, flourishing, expansion and ultimate destiny might have been preserved in the lithospheric cover of the Earth. The present study asserts and makes an endeavour to sort out mostly natural causes responsible for the growth and decline of the Harappan Civilization.

Keywords: Harappan, Historic, Civilization, Geographic, Maritime

Introduction

Civilizations may be characterized with large settlements, written script, high art and architecture, huge installations, unique administration and division of labour and social classes. Ancient civilizations were deep rooted mostly into the fertile surface cover although adverse physiographic and climatic regions often pushed the millions. The Indus, the Sumer and the Mesopotamia, the three great civilizations of the past had flourished in valleys of the three great rivers of the Indus, the Tigris and the Euphrates. Riverine flood plain with metres of sediments, flat topography and river as a source of water and medium of transport and trade acted as the favourable conditions of the growth of civilization. Valley location, ease of accessibility had provided multitude of facilities in the realm of agriculture, settlement and transport and communication. Evidences of many kinds had suggested the riverine or maritime location of the Harappan Sites. 'Great Granary' of Harappa dictates huge cultivation practices. "Whatever the volume of trade, numerous representations of ships and boats on Harappan Seals and terracotta from Lothal give us some idea of the mode of riverine and maritime transport" (Jha, D.N. 2003) ^[17].

Harappan (Indus Valley) Civilization Sites – Earthly Location

Indus Valley or Harappan Culture development sites were subdivided into five geographical phases in its later stage. These are (i) Sindh, (ii) West Punjab and the Ghaggar – Hakra Valley, (iii) Eastern Punjab and Haryana, (iv) the Ganga – Yamuna Doab and (v) Kutch and Saurashtra (Singh, U. 2008) ^[17]. The development of Harappa on the bank of River Ravi, Ropar on the bank of the Satluj, Kalibangan on the bank of the Ghaggar, Mohenjo-Daro on the bank of the Indus, Banawali on the bank of the Sarasvati (Saraswati), Lothal on the gulf of Kachchh have endorsed the indispensability of the riverine or maritime locations of the past civilizations (Table. 1, Fig. 1).

Other sites such as Nausharo, Kulli, Mehri, Nal, Nindowari etc. might had the bank location but presently away from flowing lotic component as a very near possibility of the changing river course due to normal or mass scale external or internal earthly disturbances.

Apart from India and Pakistan locations, the other sites have also discovered such as Shortughai on the Oxus River bank in Northern Afghanistan. Dryland Farming was practiced there, as evidenced from extensive ploughed field with flax seeds having facility of canal irrigation from the Kokcha River (Singh, U. 2008) ^[17]. Mundigak in Afghanistan is located in the upper basin of Kushk-i-Nakhud River. Bampur in present day Iran is located on the bank of the Bampur River.

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Table 1: Physiographic settings and associated civilization sites

| Hill, Plateau, Semi-Desert, Intermontane Valley and Riverine Landscapes [Afghanistan, Baluchistan, Iran and Iraq] | River Valleys [Indus and its tributaries] | River Basins [Ghaggar-Hakra / Sarasvati (Sarasvati)] | Doab [Ganga-Yamuna] | Coastal and / Riverine and Rann Sites [Gujarat] |
|--|---|---|---------------------|---|
| Anjira | Allahdino | Balu | Alamgirpur | Babarkot |
| Balakot | Amri | Banawali | Baragaon | Bet Dwarka |
| Bampur | Bara | Baror | Bhorgarh | Bhagatrav |
| Dabar Kot | Chanhu-Daro | Bhagwanpura | Hulas | Daimabad |
| Damb Sadaat | Ghazi-Shah | Bhirrana | Mandi | Desalpur |
| Hissar | Gumla | Burj | Mandoli | Dholavira |
| Hor-Kalat | Harappa | Farmana | Sanauli | Gola Dhoro |
| Kargushki-damb | Jalilpur | Ganweriwala | Sothi | Kanmer |
| Kaudani | Kerchat | Hisarmound | | Khanpur |
| Kot Bala | Kili Gul Mohammad | Jognakhera | | Khirasara |
| Kulli | Kot Diji | Kalibangan | | Kuntasi |
| Mehi | Lohri | Karan Pura | | Loteshwar |
| Mehrgarh | Manda | Kunal | | Lothal |
| Moghul Ghundai | Mohenjo-Daro | Mitathal | | Malvan |
| Mundigak | Ongar | Rakhigarhi | | Nageshwar |
| Nai Buthi | Pandi Wahi | Siswal | | Oriyo Timbo |
| Nal | Pir Shah Jurio | Tarkhanawala- Dera | | Pabumath |
| Nindowary | Quetta | | | Padri |
| Nausharo | Rehman Dheri | | | Rangpur |
| Nundara | Rohel-jo-Kund | | | Rojdi |
| Periano Ghundai | Ropar | | | Shikarpur |
| Persepolis | Sanghol | | | Surkotada |
| Pirak | Sarai Khola | | | Vejalka |
| Rana Ghundai | | | | |
| Shortughai | | | | |
| Sohr Damb | | | | |
| Sokhta Koh | | | | |
| Surab | | | | |
| Sur Jangal | | | | |
| Sutkagan Dor | | | | |
| Tell Hassuna | | | | |
| Tando Rahim Khan | | | | |
| Tal-i-Bakun | | | | |
| Zila | | | | |

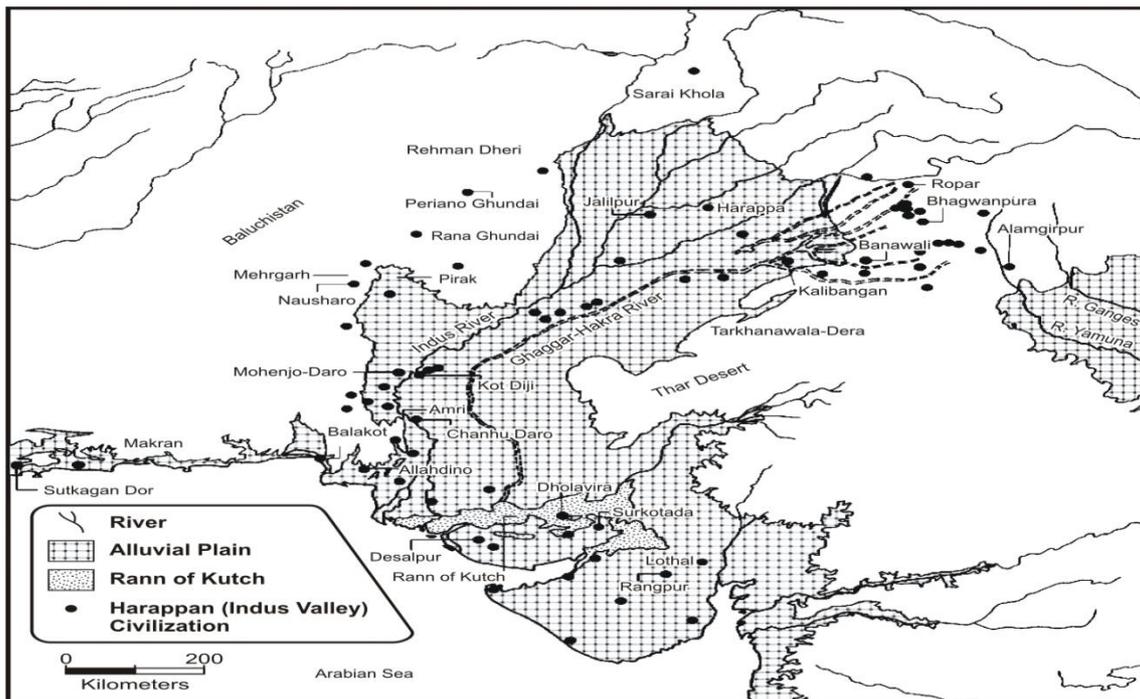


Fig 1: Physiographic settings and the Harappan (Indus Valley) Civilization sites

Although riverine flatland often favoured the growth of civilization but in the absence of these, intermontane valleys or land surrounded by mountains, deserts, coast etc. keep space for onset and prospering of civilization. Apart from locational influence, the rivers often played much to ease the administration as, “...we are entitled to regard the Harappa kingdom as governed from two capital cities 350 miles apart, but linked by a continuous river thoroughfare” (Piggott, S. 1950) ^[12].

Decline of the Civilization – Natural Causes

The Harappan or Indus Valley Civilization came to an end probably between 1500 BCE – 1300 BCE (as earlier proposition suggested). But, it is claimed by the ASI and Kharagpur IIT scientists in the world famous journal, ‘Nature’ published in May 25, 2016 that the Indus Valley Civilization was atleast of 8000 years old (after www.thebetterindia.com > mohenjodaro) i.e. it was flourished at least around 6000 BCE.

Whatever was the temporal frame of sprawling and decline of civilization, the specific sites often favoured by the prevailing settings of natural environment. It is often argued that hundreds of settlements were developed in the dried river beds of the Ghaggar-Hakra River and those tributaries but other archeologists are in opine that those were developed in later periods which is evidenced from the Ganga and the Ghaggar-Hakra Valleys. It is worthwhile to mention that dry bed nature of the river in later periods was manifested by the presence of Painted Grey Ware (PWG) culture on the rocks of the river bed instead of river side. The archaeological and paleo-geographical evidences suggest the then nature of the rivers which were completely different from the present day and might have been linked with the multitude of natural events rather than the total human induced factors such as invasion or war. These are as follows.

- River capture and abandonment of the erstwhile channel (paleo channel)
- Massive earthquake
- Excessive gushing of streams and rivers in the event of snow melting during those peak warm periods (5600 BCE – 2500 BCE)
- Overgrazing and resultant erosion
- Devastating and frequent flood in the event of siltation of rivers and cumulative effect of agricultural, urbanization process and deforestation for burning of bricks
- Climate change due to the mass scale deforestation as was in the case of Maya Civilization (?)
- Worsening of aridity condition and ultimate desert formation
- Shifting nature of river courses due to river capture or other natural or mass scale tectonic activity
- Alteration of drought and flood and the inevitable distress
- As a consequence of climatic cycle
- Huge sea level rise due to glacial melting and eventual abandonment of the settled sites
- Excessive and over utilization of natural resources
- Onset of Holocene or once called “entirely recent” climatic period
- Over cultivation, overgrazing and the resultant fertility loss and soil salinity increment

- Shortages of land, food and fodder i.e. the scarcity of resources (Singh, U. 2008) ^[17].
- Decline of mining resource of *Lapis Lazuli* and related trades (Ratnagar, S. 1981) ^[14].

Pollen Study from Rajasthan lakes suggests a connection between the dry climate and the decline of the Harappan Civilization (Singh, G. 1971) ^[16]. Signs of crop cultivation like rice, barley, wheat, field pea, grass pea, sorghum, millet, pulses, cotton, lentil, moong, chick pea, almond, walnut, linseed, mustard, sesame, assert the presence of flat land and fertile (alluvial) soil cover. River Valleys are the suitable sites for such facilities.

The following citations undermine us the crucial role of nature which caused the eventual destruction of one of these great civilizations “Excavations reveal that Mohenjodaro itself was flooded more than once (Jha, D.N. 2003) ^[7].” Again, “There is indeed abundant evidence from the sites of the Harappa Culture that such alteration of course, with consequent disastrous floods, was not uncommon in ancient times”, and moreover, “Before leaving the geographical background and turning to an examination of the prehistoric cultures themselves, attention must be drawn to Lake Manchhar, which lies between the Indus and the foothills of the Kirthar Range of the Baluchi mountains near Johi. This is normally a lake about 8 to 10 miles in length, and much in breadth, but being connected with the Indus and also receiving drainage from the hills to the west, in the inundation period it becomes enormously swollen, occupying an area of some 200 square miles...” (Piggott, S.1950) ^[12].

Conclusion

Ancient and historical events or the happenings often render problems in reconstruction as it was in the beginning due to total change of society, climate, culture, hundreds or thousands of years of time deviation and thereby paucity of information. Although emblems in multitude of forms often provide basic clues to make an outline and may facilitate a roadway to make entry into it. The decline of the Harappan (Indus Valley) Civilization might be highly linked with the natural disaster was it a sudden or prolonged type though there are many more evidences of puzzling type. Climatic fluctuations or large scale internal events such as tectonic activity etc. might cause the ultimate destiny. But there are also many more imprints of age-long socio-economic erosion which is evidenced from a number of socio-cultural structures such as lessening of length and spacing of houses, lane, drainage types and types of congestion which might have led to the waning of the civilization. Flood and drought, the two extremes of rainfall and the inevitable famine might lead to the decline of the Harappan (Indus Valley) Civilization.

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