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Weapons and implements in late Harappan phase

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Abstract

This research paper shows the existence of Late Harappan people around 1700 BC - 1400 BC in the area of J&K, Punjab, Haryana, Uttar Pradesh, Rajasthan, Gujarat and Maharashtra, after mature Harappan phase. They were used various type of weapons and implements which are made up of copper, bronze, stone, bone and terracotta. All weapons and implements are divided into four categories on the basis of their uses. These weapons and implements reveals the interest of the Late Harappan people in war, hunting, agriculture, carpentry and in others crafts. Besides, we can classify the society occupations on the basis of weapons and implements of Late Harappans as warrior, hunter, fisherman, farmer, metalsmith, weaver and others artisan.

Keywords: Numerous, hunting, triangular, rectangular, agricultural, PGW, measurement, household, mould, classification, overlapping

1. Introduction

The Harappan civilization started to decline around 2000 B.C. many factors are responsible for its decline like flood, earthquake, Aryan invasion, climate change etc. The features of decline of Harappan civilization can be describe in different aspects like in building constructions, brick size, encroachment of building in street decline in trade etc. during the late Harappan phase. The material culture also becomes poor when the urban fabric of a culture disintegrates with the decline of Indus civilization. The sophisticated Harappan traits were watered down by mingling with impoverished local culture until what was once distinctively Harappan was diluted to the point of non-existence. Devolution of a culture appears to be the outcome of economic decline which produces cultural transformation and so changes the internal interaction of society.¹

During this phase the people used the weapons and implements made of copper, Bronze, Stone and Bone etc. Late Harappan people used a variety of tools for doing their work. As compared to weapons and Implements of Harappans, quantity of metal use in late Harappan was limited and no new tool-type appeared. Late Harappan technology was not as good as Harappan technology.

Extent

Numerous Late Harappan sites are reported in J & K, Haryana, Punjab, Uttar Pradesh, Rajasthan, Gujarat and Maharashtra, in these states there are uncountable sites. There are some sites from where many tools have been found in excavation and exploration by Archaeologists. Banawali, Balu, Daulatpur, Mirzapur, Raja Karan Ka Qila, Mitathal, Siswal, Farmana, Bhagwanpura etc in Haryana., Ropar, Bara, Kotla Nihang Khan, Sanghol,² Dadheri etc in Punjab., Hulas, Alamgirpur, Bargaon in Uttar Pradesh., Lothal, Rangpur, Surkotda, Desalpur, Rojdi, Bagasra etc in Gujarat., in Maharashtra Daimabad is an interesting Late Harappan site where a large number of bronze figurine and a few tools are reported. Coppersmiths of Daimabad were perfect in their skill and technology.

Besides these Late Harappan sites many sites are also found in different region in northern India. In this research paper only those sites are mentioned where weapons and Implements have been found. A large number of sites have been destroyed by farmers for agricultural purposes.

Chronology

It is very difficult to find out the date of Late Harappan culture in India. Once the mature Harappan started fading out in 1900 BC. Joshi remarks about the shapes of Potteries of Late Harappan ceramics assemblage available at Bara, siswal II B, Mitathal II B, Daulatpur, Raja Karan Ka Qila etc. The excavator sent 18 samples from the sites for scientific dating by thermoluminescence (TL) method at Bhabha Atomic Research Centre, Bombay.³

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Some dates of Late Harappan sites are mentioned there on TL Banawali -1700-1400 BC, Mithathal II B 1700-1500 BC, Balu 2000-1700BC, Daulatpur 1700-1500 BC, Mirzapur 1700-1500 BC, Alamgirpur 1900-1700 BC, Haulas 2000-1000 BC, Bargaon 1900-1700 BC, Sanghol 1900-1500.

Radiocarbon dating (5730 yrs Half life) reveals 1900 BC-1400 BC as period of the late Harappan culture, Daimabad 1900-1420 BC, Prabhās Patan 1400 BC.⁴ Some Late Harappan sites overlap with P.G.W. Bhagwanpura Late Harappan phase 1700-1300 BC overlapping phase 1400-1000 BC, Dadheri 1700-1000 BC, Katpalon 1400 BC-1000BC, Nager 1400 BC -1000 BC. From the above mentioned data it's clear that the starting phase of late Harappan period was from 1900 BC and purely Late Harappan was from 1700BC to 1500/1400 BC. But some sites are overlapped Late Harappan with PGW dates, from 1700 BC to 1000 BC.

Weapons for War and Hunting

Many types of weapons made up of copper, stone and bone and rarely of bronze have been found from the excavated Late Harappan sites. The weapons have been reported from Mirzapur, Raja Karan Ka Qila, Daulatpur, Bhagwanpura, Balu,⁵ Mitathal, Kheri Meham, Baliana, Farmana etc. in Haryana., Sanghol, Ropar, Kotla Nihang Khan, Bara etc. in Punjab., Lothal, Rojdi in Gujarat and Daimabad in Maharashtra.

These weapons are like spearheads, arrowheads, parasu, harpoon, macehead, daggers, sling balls. The weapons were used in war, for hunting and for self protection. Late Harappan sites were rural society in which people depended on agriculture and hunting. The weapons show that the people of this period were hunters, soldiers and successors for states.

Arrowheads

The arrowheads, found from Late Harappan sites, were rarely made up of copper and bone. Arrowheads reported from Balu were made up of copper and were triangular in shape and with pointed tip. Daulatpur⁶ and Bhagwanpura (Late Harappan and PGW overlapping) people used bone arrowheads for killing birds. Two bone arrowheads found from Bhagwanpura one of length 6.9 cm and second of 6.1 cm, both are polished and circular section.⁷

Spearhead

The villagers of Late Harappan culture used the copper Spearheads reported from mirzapur,⁸ Raja Karan Ka Qila, and Daimabad.⁹ Two spearheads found in Mirzapur excavation are displayed at Department of Ancient Indian History Culture and archaeology museum, K.U. Kurukshetra. One of them is 17 cm in length 4.20 cm broad and 4.3 mm in thickness, leaf shaped blade with tang for the purpose of hafting of wooden stick. Second spearhead is broken from half blade and tang. It is 4mm in thickness 3.5 cm broad, length (?) a complete spearhead of copper without mid-rib was also found from Raja Karan Ka Qila.¹⁰

Dagger

Dagger was not found from any specific Late Harappan site, only Bhagwanpura-I B (Late Harappan overlap P.G.W) has reported a fragment of copper dagger, rectangular in section. Length 6.3 cm.¹¹ A toy type ivory dagger has been reported from Daulatpur. A miniature dagger from Daimabad made of rib bone of a large mammal with a concave side hilt having a fan-shaped upper end surmounted by a small U-shaped pinnacle like top on either side of the lower end of the hilt is a

large lower down are two circular holes on the blade and a pair of horizontal incised lines. A small part of the right side margin at the lower end is missing. The tip at the lower end is sharp and pointed.¹²

Parasu

Some copper parasu founded from excavated late Harappan sites as like Mirzapur, Sanghol,¹³ Mitathal, Rojdi and Bagasra. Mirzapur parasu found a fragmentary piece and Sanghol parasu is double axe. A parasu reported from Bagasra is not clear as a parasu or razor. Parasu from Mitathal is like a chopper in shape. It is broken into three pieces. When joined together, this weapon measured 15 cm long. It has a straight back and a concave cutting edge. At the middle it measures 2.2 cm broad while at the edges 3.5 cm it weights 64.05 gms.¹⁴ The existence of Khurdi (Nagaur) type of copper parasu found in the chalcolithic phase at Ahar and Mitathal II B is equally Important. It showed link between Late Harappan culture and chalcolithic cultures.

Harpoon

A copper harpoon occurred from Mitathal, moulded variety with a medial rib, and diamond section, curved barbs and a hole at the tang to tie a wooden stick. It is recovered from unstratified level. Some scholars suggests that is may be related with copper hoard. The occurrence of this copper harpoon is very interesting and may indicate a link with the Ganeshwara culture in Rajasthan as well as the copper hoards in the Ganga -Yamuna doab region.

Macehead

A copper macehead found from the Late Harappan level of Chanhudaro deserves mention here as it resembles the maceheads from Mohenjodaro and Harappa.¹⁵ Similar maceheads are found in copper or bronze in the 1400 BC Levels of Luristan site in Iran.

Sling Ball

Spherical missile of stone and terracotta sling ball were thrown by the complicated techniques of releasing by means of sling, Double-stringed bow or catapults or simply by hand. Excavations give the evidence that Late Harappans used sling ball in hunting and killing birds. A large number of sling balls are found that belonged to this period. Reported sites of Late Harappan culture as like Ropar, Bara, Kotla Nihang Khan, Mitathal, Kheri Meham, Baliana, Mungan, Farmana, Khandā kheri, Baliana etc. had reported many terracotta sling ball¹⁶ Four sling balls recovered from Farmana-1, length 7.2-10.03 cm and breadth 4.0-6.2 cm, oval shaped, greyish colour red and light mark with two finger impressions on rides¹⁷ these are found from Kheri Meham which is made up of sandstone reddish in colour, spherical, measuring 2.78 cm (Diameter). Mitathal slings ball are made up of terracotta and stone.

List of Late Harappan culture's weapons

Arrowhead: Balu (copper), Bhagwanpura, Daulatpur (bone)

Spearhead: Mirzapur, Raja karan ka Qila (copper), Daimabad (Bone)

Parasu: Mirzapur, Sanghol, Mitathal, Rojdi, Bagasra (Parasu/Razor) (Copper)

Sling ball: Ropar, Bara, Kotla Nihang Khan, Mitathal, Kheri Meham, Baliana, Mungan, Farmana (stone & terracotta)

Harpoon: Mitathal (copper) Copper hoard type.

Macehead: Chanhudaro (copper or bronze)

Dagger: Bhagwanpura (copper), Daulatpur (ivory), Daimabad (bone)

Agricultural Implements

Late Harappan farmers used agricultural implements like axe, celt, bar celt etc. for agricultural purposes like clearing the forests, tilling the land and crop harvesting. So many implements of this type have been found from excavated sites.

Axe

These implements are not reported in a large number, five copper or bronze axes occurred into excavation at Rojdi, these are flat, four completed and one broken. A fragment of axe found by excavator from Daimabad.¹⁸

Celt

This implement is a protohistoric type of stone or metal with beveled cutting edges, probably used in agriculture. Excavators discovered a number of celt from Late Harappan sites like Ropar, Sanghol in Punjab, Mitathal in Haryana, Lothal, Rangpur Rojdi, Bagasara in Gujarat, Daimabad in Maharashtra. A copper celt reported from Ropar is rectangular shaped. Some copper celts are founded from Sanghol,¹⁹ Lothal, Rojdi²⁰ which have similar rectangular shape and floured toward one edge i.e cutting edge. A copper piece of celt reported from Daimabad its shape is probably rectangular, wooden shaft fitted into celt, the Late Harappan used this for agricultural purpose. Mitathal celt is with a square butt which is partially damaged. The cutting edge is slightly broader than the butt end. It is greatly splayed out and beveled at the cutting edges. It is 8 cm long 5.3 cm broad at the cutting edge and 4.2 cm at the butt end. It is thickest at the butt end measuring 1 cm and weight 118gm.²¹

Bar celt

A copper bar celt discovered from Rojdi showed that farmer used it for digging purpose.²²

List of Agricultural Implements from Late Harappan Sites

Axe : Copper – Rojdi, Daimabad.

Celt : Copper – Ropar, Sanghol, Daimabad, Siswal, Mitathal, Rojdi, Bagasara, Bargaon, Rangpur.

Bronze – Kotla Nihang Khan

Bar Celt or Chisel: Copper- Rojdi

Implements of various crafts

Late Harappan culture particularly knew various types of craft. Excavators reported a few types of material which can be studied on the basis of implements like chisel, awl, drill bit and borer. We get knowledge of their occupation like carpenter, coppersmith, cobbler etc from their tools.

Chisel

A Numerous chisels are made up of copper and bronze (rarely of) in different type of shapes have been founded at the late Harappan sites. These are made up of a metal bar of which one end is beveled to one or more sharp edges and other is left blunt for being struck with a hammer. Important sites of Late Harappan from where some copper chisel were found are Daulatpur, Bass-iv, Bara, Dadheri, Sanghol,²³ Desalpur, Hulas, Rojdi, Bagasara, Daimabad. Mostly chisels are rectangular shaped. Two copper chisels are found from Sanghol. They are of rectangular cross section and slightly splayed edge and grinded. A chisel reported from Bara is rectangular, cutting edge is splayed 85 mm long 8 mm broad and 2mm thick.²⁴ Fragment of a chisel, measuring 6 × 0.44 ×

0.62 cm, rectangular in section found from Theh Bir in Kurukshetra district. (Dangi, Vivek 2010:357). A beautiful chisel has been unearthed from Sanghol. It is rectangular in section and its working edge is nicely prepared.²⁵ The late Harappans used these chisels for cutting, engraving and for carpentry purpose.

Awl

A few awls identified in excavation of Late Harappan sites are like Bhagwanpura²⁶ and lothal. Bhagwanpura awls are made up of bone, shape is round and pointed tip. Lothal awls are made up of Copper, round and triangular shaped and sharp tip for making hole in various craft.

Borer

A round shaped section length 5.07cm copper borer found at Bhagwanpura from a late level of sub-period-1B. It is related to Late Harappan and P.G.W people.²⁷ It was used in various craft for making hole into hard things.

Hammer

Two quartzite hammers reported from Mitathal period II A & II B. These are blunt at both ends and show no signs of working. However, it shows some abrasive marks on side and battering marks on the end indicating that it was used as a pebble Hammer.²⁸ Craftsman used it for striking in making process of various type of things.

Various craft implements of late harappan culture

Chisel: Copper- Daulatpur, Bass, Bara, Dadheri, Sanghol, Rojdi, Desalpur, Bagasara, Hulas, Daimabad

Awl: Bhagwanpura (Bone), Lothal (Copper)

Borer: Bhagwanpura (Copper)

Hammer: Mitathal (Quartzite Stone)

Household Implements

Some Implements found from various late Harappan sites are used in daily life e.g knife, needle, fishhook, razor, bone point, blade, hook etc.

Knife

Late Harappan knives are simple with a thin blade and pointed tip, cutting edges having curved side and back slightly thickened. Some copper knives were found from Daimabad,²⁹ Lothal, Rojdi, Bagasara and Rangpur. A knife of bone blade reported from Bhagwanpura is of length 5.80 cm and 1.10 cm broad, blackish in colour and pointed,³⁰ these types of knives were used in kitchen.

Needle

Round and oblong pins of various sizes with one end pointed and the other thick and perforated are mainly used for stitching and knitting. In Late Harappans phase these are a few in numbers and made up of copper and bone. Mirzapur has a few needles of copper, which are pointed and thin and round section. Bone needles have been recovered from Chandigarh³¹ and Bhagwanpura.³²

Details of Bhagwanpura Needles (Late Harappan + PGW):

S.No.	Implement	Material	Length	Section
1	Needle	Bone	14.5 cm	Circular incised line divided toward tip
2	Needle	Bone	6.1 cm	Round section
3	Needle	Bone	4.7 cm	Fragmented incised line on it and round pointed

Fish hook

Late Harappans did fishing with the help of copper fish hook. The different types of copper fish hooks have been found

various sites like Bara,³³ Bagasra, Samlo Kalan, Daulatpur,³⁴ Rindhana, Farmana. A copper broken fish hook at Farmana is flat in section and barbed.

S.No.	Implements	Site	Material	Measurement Length×Breadth× Thickness (cm)	Section & Shape	References
1	Fish hook	Daulatpur	Copper	1.6 cm × 1.4 cm × 3 mm	Round section and 'J' shape	Displayed at archaeological museum, dept. of A.I.H cul. & arch. K.U.K.
2	Fish hook	Bara	Copper	48 mm × 25 mm × 1-4 dia.	Full intact, 'J' shaped	Displayed at archaeological museum Ropar(Punjab)
3	Fish hook	Bara	Copper	33 mm × 33 mm × 2-4 mm dia.	Broken	Displayed at archaeological museum Ropar

Razor

Copper razors have been reported from the Late Harappan sites like Mirzapur,³⁵ Daulatpur,³⁶ Jognakhera,³⁷ Ropar, Bagasara (parasu/razor), Daimabad. Mirzapur razor is 10 cm in length, 2 cm breadth and 1 mm in thickness with sharp and L shaped blade. Hook shaped razor is reported at Jognakhera made by thin copper sheet. Bagasara razor is not clear to decide that it is a razor or parasu. It appears to be both, parasu and razor.

Points

These types of Implements were used in knitting, making hole and throwing like an arrow for killing birds. These are made up of bone and rarely of copper and have been found from Daulatpur, Jognakhera, Bhagwanpura, Balu, Lakhan Majra, Madina,³⁸ Silani Kesho, Surha, Dawla, Madina etc. in Haryana., Ropar, Bara, Sanghol³⁹ etc. in Punjab., Bagasara in Gujarat and Daimabad in Maharashtra.

Fourteen bone points found from Bhagwanpura have been displayed at Thaneshwar museum Kurukshetra. Out of them, four points are pointed on both sides, length size averages 4.3 cm to 6.50 cm and thickness 0.5-0.7 mm in diameter and are creamish in colour. Ten bone points are one sided pointed average about 4.0 cm to 11.50 cm in length and diameter 3 mm to 7 mm, sharp pointed, two points are blackish and 8 points are creamish,⁴⁰ eight bone points are displayed in Ropar museum, the average size of length 36 to 81mm and 2-10 mm diameter broken into end, sharp pointed. One bone point is unique, perforated into end for hafting, thrown as arrow⁴¹ a copper point reported at Bagasara is pointed and sharp.

Blade

Some blades have been found from Late Harappan sites. These were used for cutting and scraping in kitchen and other activities. Stone blades are available in Late Harappan site like Ropar, Sanghol⁴², Kotla Nihang Khan, Balu, Banawali⁴³, Kheri Meham, Mitathal, Lothal, Rangpur, Bagasara, Prabhas Patan, Bargaon, Daimabad. Blades are made up of chert, chalcedony, Jesper. A microlithic Blade industry had been running at Prabhas patan. Blades are sharp biconvex and pointed or triangular shape rectangular blade also found there.

Hook

These types of Copper implements were used for hanging and other purposes. A bronze hook reported at Khataoli⁴⁴ in Haryana and a copper hook found from Dadheri is U shaped.

Household Implements from Late Harappan sites

Razor: Copper- Mirzapur, Daulatpur, Jognakhera, Ropar, Bagasara (razor/parasu)

Knife: Copper- Lothal, Rojdi, Desalpur, Bagasara, Rangpur., Bhagwanpura (bone)

Needle: Mirzapur (copper), Bhagwanpura, Chandigarh (bone)

Fish hook: Bara (bronze), Daulatpur, Samlo kalan, Rindhana, Farmana, Bagasara (copper)

Blade: Ropar, Kotla Nihang Khan, Banawali, Kheri Meham, Mitathal, Lothal, Rangpur, Bargaon (stone), Bagasra (copper)

Points: Daulatpur, Jognakhera, Bhagwanpura, Mitathal, Balu, Lakhan Majra, Madina, Ropar, Bara, Daimabad (bone), Bagasara (copper)

Hook: Dadheri (copper), Khataoli (bronze)

List of late harappan weapons and implements**Pakistan**

Chanhudaro (Nawabshah distt., Sindh): Macehead (copper or bronze)

Punjab

Ropar (Rupnagar distt.): copper- celt, Razor, chert blade., Bone- points, Sling ball (Stone and terracotta)

Bara (Rupnagar distt.): copper- chisel, fishhook, Bone- points, Sling ball (Stone and terracotta)

Sanghol (Ludhiana distt.): Copper- Parasu, celt, chisel, chert blade, terracotta sling balls.

Kotla Nihang Khan (Rupnagar distt.): copper- celt, TC- sling ball, chert blade

Dadheri (Fatehgarh Sahib distt.): copper- chisel, hook

Chandigarh- Needles (bone)**Haryana**

Balu (Kaithal distt.): Copper Arrowheads, bone points

Banawali (Fatehabad distt.): Chert blade

Bhagwanpura (Kurukshetra distt.): Copper- Dagger, Borer., Bone- Arrowheads, Awl, Knife, Needles, points

Daulatpur (Kurukshetra distt.): Copper- chisel, Razor, fishhook., Bone- Arrowhead, points., ivory- Dagger

Mirzapur (Kurukshetra distt.): Copper- Spearhead, Parasu, Razor, Needles

Raja Karan Ka Qila (Kurukshetra distt.): Copper- Spearhead

Mitathal (Bhiwani distt.): Copper- Parasu, copper hoard type Harpoon, celt., Sling ball (TC and Stone), Hammer (Stone), chert blade, Bone points

Siswal (Hissar distt.): Copper celt

Farmana (Rohtak distt.): Copper- fishhook, Sling ball (TC and Stone)

Kheri Meham (Rohtak distt.): TC Sling ball, chert blade

Samlo Kalan (Jind distt.): Copper fish hook

Bass (Hissar distt.): Copper chisel

Baliana (Rohtak distt.): TC Slingball

Jognakhera (Kurukshetra distt.): Copper Razor, Bone points

Mungan (Rohtak distt.): TC sling ball

Rindhana (Sonapat distt.): Copper Fish hook

Lakhan Majra (Rohtak distt.): Bone points

Madina (Rohtak distt.): Bone points
Khataoli (Gurgaon distt.): Bronze hook

Uttar Pradesh

Bargaon (Saharanpur distt.): copper celt, chert blade
Hulas (Saharanpur distt.): copper chisel

Gujarat

Lothal (Ahmedabad distt.): copper- celt, awl, knife, chert blade
Rangpur (Ahmedabad distt.): copper- celt, knife, chert blades
Desalpur (Kutch distt.): copper- chisel, knife
Rajdi (Rajkot distt.): copper- Parasu, Axe, celt, Bar celt, chisels, knife
Bagasara (Amreli distt.): copper- Parasu/Razor, celt, chisels, razor, fishhook, Blade, Points

Maharashtra

Daimabad (Ahmadnagar distt.): copper-Axe, celt, chisel, Bone- Spearhead, Dagger, points.

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