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Indian protohistoric weapons and implements

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Abstract

In this research paper included that the protohistoric weapons and implements were made up of metal, stone, bone and terracotta, related to Indus civilization, Chalcolithic cultures, Copper Hoard, Rigvedic, Later Vedic and PGW culture. This paper reveals a comparative study of weapons and implements among these cultures. These are mainly divided into four categories on the basis of their uses, like weapons of war and hunting, agriculture implements, various craft implements and household implements. Making technique of these weapons and implements is also discussed in this paper. On the basis of weapons and implements, we could classified the society and their occupation like warrior, hunter, fisherman, farmer, weaver, metalsmith, beadmaker, mesonary and other categories.

Keywords: Alloy, excavation, Chalcolithic, barb, anthropomorph, shru, pavir, mould, cast, metallurgy

Introduction

Weapons and Implements have played an important role in the development of human civilization from stone age to the present day. Weapons are mainly of two types: Astra and Shastra. Astra are those weapons which are thrown away to kill someone such as Arrow, Spear, Trident, missile (sling ball) etc. Shastra are those weapons which are used by keeping in hands such as Sword, Mace, parasu etc. Weapons are the symbols of power and command of a courageous person. In the early days, the teeth, nails and hands were used as main weapons by human beings. Weapons and implements of the Stone Age came into existence with the beginning of the Paleolithic phase of human development. Humans discovered metal in 5th millennium BC and used it for making weapons and implements. The metallic weapons and implements were stronger and sharper than that of stone tools. As a result there had been a considerable increase in the weapons and implements made of metal such as copper, bronze etc. in protohistoric age. From the earlier times, the weapons are being used for fighting, hunting and to protect oneself from the wild animals. The implements were used for cultivating, making buildings, cutting the trees and in different types of works.

In the protohistoric age, different cultures originated in different regions of India. The use of metal played a prominent role in the progress of these cultures. The people of these cultures made progress in imperialism, agricultural production, small scale industries and in trade with the use of weapons and implements. Various kinds of weapons and implements came into light with the excavation of the protohistoric sites. These weapons and implements throw light on different aspects of life of these people. Cultures which had better weapons and implements were more flourished and developed. It is also true in today's context.

Weapons of the Indus Civilization

The weapons and implements of the Indus Culture were made of Copper, Bronze, other alloys metal, stone and bones, which were tracked down from hundreds of sites. These sites include mainly Mohenjodaro, Harappa, Chanhudaro in Pakistan., Manda (J&K) Kalibangan, Sothi, Tharkhane-wala-Dera (Rajasthan) Alamgirpur, Hulas (UP) Lothal, Dholavira, Surkotda, Rangpur, Bagasara, Rojdi (Gujarat), Mitathal, Rakhigarhi, Farmana, Lohat, Siswal, Kunal, Bhirrana, Balu, Banawali (Haryana), Ropar, Bara, Sanghol, Kotala Nihang Khan, Dadheri, Mohrana, Rohira, Dhalewan(Punjab) in India. Arrowheads, sword, dagger, spearhead, parasu, axe, knife, mace-head, Javelin, sling ball have been found from the above Indus sites. Arrowheads, spearheads, axes, Javelins, sling balls, knives were the general weapons which are found from almost every Harappan site. Parasu, dagger and mace-head are found rarely. Two blades of sword were discovered only from Mohenjodaro is a unique discovery. The weapons and implements were also found from the regions of Haryana and Punjab, which include mainly arrowheads, spearheads, knives, axes, parasu, sling balls etc. Arrowhead has been used continuously from prehistoric age. The shape of arrowhead is triangular.

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These arrowheads are flat and without tang and two barbes are made on its opposite fringe. With the help of these barbs the shaft of wood was fitted into arrowhead and attacked by bow. The Indus bow was probably made of wood in which thin rope of leather was bounded on both sides.

The Indus axe is of two types (a) Long and thin (b) Short and broad. These axes are mostly flat. The axe which has a hole and the stick of wood fitted into it is found from Mohenjodaro. Two types of Indus dagger are also found, biconvex and convex blades. Spearheads are long, thin, short, triangular and leaf-shaped and size. The shaft of wood was fitted under its tang. The type of knives includes broad leaf-shaped, curved, pointed, thin and straight. Two biconvex swords with two holes in its tang were found from Mohenjodaro. The blades of these swords are in outward position from the middle. The Parasu found from Mitathal has concave blade.

Sling balls made of stone or terracotta are circular or pear-shaped have been found from most of the sites. Mace-head of copper and bronze unearthed from Chanhudaro, are circular, leaf-shaped, biconvex. Some small pieces of copper found at Mohenjodaro, perhaps these were fixed into armour. Some letters of Harappan scripts present an illusion of a man who holds a shield in his hand for fighting purpose.

Different scholars have interpreted the Indus people as peace-loving. This view is based upon the assumption of scarcity of weapons and implements at the Indus sites. But new discoveries show that metal weapons are found in large number from the Indus sites. These weapons probably used in war. The similarities regarding city-planning and different materialistic aspects of the Indus cultural variations show that there would be central administrative authority controlling over all the regions of the Indus empire. In this process of controlling from centre, there would have been a need of different weapons. Many Indus cities comprised of fortification for the fear of invaders but it is also considered that the fortification wall also protect the people from flood.

Implements of the Indus Civilization

The implements of copper, bronze and stone are found from number of Indus sites. They can be divided in various types on the basis of their uses. The implements used in cultivation include sickles, hoe, part of plough, edge etc. Various other implements are also found from almost all the Indus sites which were used in different arts and crafts, they include chisels, saws, drills, awls, bead making tools. The implements normally used are needles, fish hooks, simple hooks, scrapers, sticks, choppers, chert blades, razors, pins, etc. The Indus people made much progress in the field of agriculture, industry, art and technology with the help of these implements. The implements from the region of Haryana and Punjab include axe (Bhirrana, Kunal, Ropar, Sanghol), sickle – (Banawali), chisel (Banawali, Bhirrana, Balu, Dadheri, Sanghol), and knives, needles, fish hook, simple hook, scraper, chert blade, razor, pin, wires (Banawali, Kunal, Rakhigarhi, Mitathal, Bhirrana, Siswal, Balu, Ropar, Bara, Dadheri, Dhalewan, Sanghol, Kotla Nihang Khan) etc.

Chalcolithic Weapons

The Chalcolithic cultures are those which developed in the regions with a view to getting raw material, like copper ore, these cultures were basically rural settlements using copper implements as well as traditional stone tools. These cultures were contemporary to the later phase of Indus civilization and later on, these cultures flourished in Madhya Pradesh,

Chhattisgarh, Rajasthan, Uttar Pradesh, Bihar and Gujarat etc. The Chalcolithic cultures are divided prominently into four cultural divisions i.e. Ahar, Kaytha, Malwa, Jorwe on the basis of regional characters and pottery tradition. The weapons which are found from excavations of chalcolithic sites include swords, arrowheads, daggers, spearheads, axes, mace-heads, Sling balls, knives etc. Swords are found from Navdatoli and Jorwe their blade is biconvex with a raised rounded mid-rib on both the faces. The blade of the dagger found from Chandoli is leaf shaped and its hilt is like antenna. Arrow, prominent among the weapons of these people, was found from Inamgaon, Navdatoli chalcolithic sites. The blades of these arrows are leaf-shaped and triangular. The copper tanged spears with raised mid-rib are found from Daimabad and Chandoli. These implements were used for hunting and in war.

Many flat axes are also found from Ahar, Kayatha, Navdatoli, Chandoli and Jorwe etc. Edges of these axes are both convex and biconvex. Some round shaped big stone with a hole in its center are found from some chalcolithic sites. These stones were used for the work of mace-head. Many sling balls are reported from almost chalcolithic sites and these sling balls were probably used to kill someone by throwing these away. The people of Chalcolithic culture used these weapons for fighting, hunting and also for self defence.

Chalcolithic Implements

The Chalcolithic implements made of copper, stone etc. These were used for different purposes like cultivation, art & craft, and other household activities. The implements used for cultivation include prominently axe, the implements for arts & craft include chisels, drills, awls. The household implements include knives, lunates, triangular points, pins, fish-hooks, needles, tongs and nails. These implements played an important role in the progress of rural culture.

Copper Hoard Weapons

Peculiar weapons and implements made of copper were found at Bithur in Kanpur District (UP) in 1822 firstly. From that time till today these kinds of copper hoards weapons and implements are being found repeatedly. The weapons and implements of this age were made of pure copper. Antennae swords are found from Bithur, Shahabad, Mashana, Fatehgarh, Sapai, Kallure etc. These are long, tapering, double-rapiers with a strong medial-rib. The hilt of these swords is of two edges. Nearly four hundred different types of Arrowheads have been found in large number from Ganeshwar. Triangular arrowheads are thin and barbed from below. The hooked spear or swords found at Shahabad (U.P) have the blade like spear. There is a hook below its tang. These were used like spear and sword. Hatchets (Parasu) of sharpened half-circular shape are found from Sartholi and Mitathal. Three double edged axes are found from Bhagrapi in Orissa which had been probably used for fight or in battle. The blade of the spear, which is found from copper hoards region, is triangular and raised in mid-rib. There is a tang below it which is fitted into stick of wood. Some anthropomorphs are found from different regions which are well sharpened. Some scholars interpret its use as weapon and some others for religious purposes. Some harpoons have also been found which have 4-6 pairs of curved barbs. They are used for hunting and fishing. The implements include flat axe, shoulder axe, bar-celt, khurpi, short and long axe and parts of plough, were used for cultivation. The razors, knives, chisel etc. were used for different purposes.

The prominent sites in Haryana from where these weapons are found include Dadri, Mitathal, Pauli, Rewari, Hansi, Ambala, Bhiwani, Narnaund etc. Many Copper hoard weapons and implements have been placed at Jhajjar Gurukul Museum.

Rigvedic Weapons and Implements

After the decline of the Indus Civilization a new rural civilization originated in Sapt-Sindhu region which is famous by the name of the Vedic Culture. In the Rigvedic age, forerunner Aryan activities in India were limited mainly to Punjab, Haryana and Western Valley of Ganga. The Rigvedic people used various weapons and implements in war. At that time, weapons were made of ayas, bones, horn, wood etc. Bow of the Rigvedic age was made of wood and its string was made of animal skin. There are three parts of an arrow in the Rigveda. Isu, Sharu, Salya, Shar, Sayak are the names used for arrow. There is also a description of poisoned arrows used in war. Heti and Parheti weapons were shaped as Vajra and there were many pointed barbs originated from them. The Kulisha, Parasu etc. are the synonyms used for axe in the Rigveda. In the Rigveda, these are also a description of mace head made of stone and metal. Sword was called Ashi and Kripan. It was well-sharpened. In the Rigveda Kriti, Kartnak, the synonyms of Dagger, and Rsti, Srakiti, Srika, Rambhini etc. are the words used for spear. Besides, Adri and Asani (stone Missiles), Trident, Swadhiti (axe) were the weapons used in war. In defence Armour, the word Shipra was used for Helmet. These Armour and Helmet were made of metal and leather.

The Rigvedic implements Kulisa axe was used for cutting trees and preparing land for cultivation, Datra (Sickle) used for harvesting, Sir (plough) and sita (forepart of plough) is referred in Rigveda used to prepare land for crops, Kuthar used to cut wood, Khanitra used for digging the land, and Ankush used to control over elephant.

Later Vedic Weapons and Implements

Later Vedic phase, culture extended to Punjab, Haryana, U.P., and to eastern area i.e. to Bihar and Bengal. Almost entire northern India was under Aryanism. The credit for the discovery of iron goes to the Aryans in Northern India. They made weapons of iron at larger scale compared to copper and bronze. The prominent weapons described in Later Vedic literature are as under- Bows had various types and were made of wood and bamboo. In Later Vedic literature, the synonym used for arrows were Sarya, Sari, Isu etc. These arrows were much sharper and their blades had many points. Poisoned arrows were called Digha. Arrows were kept in Quiver. This Quiver was made of wood and leather. In Later Vedic age, Ishudhi and Banavant were the words use for Quiver. Vajra was made of metal and had many barbs in it. It was used to killing the enemy by throwing away. Pavira and Srka were spear like and Lance-Spear. Ashi and Nisangathi are the Synonyms used for the Sword made of iron and copper. These were very sharp. Vighan was the word used for small mace, Svadhiti for small sword or dagger. These were used for hunting and war. Defence, armour includes Kavacha trivaruth (shield), Sipra (helmet) etc., which were made of metal and leather. Besides, these weapons such as sasa, sword, parasu, axe, trident, spear, sula, dand and knives etc. were the weapons described in Later Vedic Literature.

In Later Vedic Age weapons, pavira and phal were used as plough to prepare land for ploughing, shalaka and khunitra (hoe) for digging and level the ground, kulish (axe) for cutting trees, datra (sickle) was used for harvesting the crops. All

these implements were used for cultivation. Besides these implements namely pari-sasa (climp), nail cutter, ksura (razor), shanku (hooks) suchi (needle) were used for household works.

Weapons and implements in Painted Grey Ware Culture

Ahichhatra was the place from where the information related to PGW culture was found in 1940 in the very beginning. From that period till today hundreds of sites of this culture were found from Punjab, Haryana, Rajasthan, U.P. etc. The weapons and implements of copper and iron are found from the different sites of PGW Culture. This culture is considered as the harbinger of Iron Age because these people made the weapons and implement of iron from the very beginning.

Arrowheads are made from copper, iron and bones and these are triangular, leaf-shaped, cylindrical in shape and some of them have tang and with holes in it. Sticks of wood were fitted into the arrowhead and these arrows & bows were used for war and hunting. These kinds of arrows were found in Atranjikhhera, Noh, Jakhera, Allhapur, Almgirpur, Ropar, Madina etc. The Daggers have a tang behind it to handle it properly. The spear-head made of iron is leaf-shaped and triangular and these spears are found from Atranjikhhera, Jakhera, Noh, Almgirpur etc. The iron knives reported from Atranjikhhera, Timargarh, Hastinapur, Abhirpur have triangular blade and sharpened point.

Besides these weapons some agricultural implements like axe, sickle, hoe, part of plough, blade etc. are found at many PGW sites. Some specimens of craft implements like clamp, chisel, borer, needle, stick, pin household implements like knives, needle, nail-parer, pin, fish hook, nail, simple hook also have been found from these sites.

Technology

The Indus people brought copper from mines of Khetri (Rajasthan) and Singbhum (Jharkhand). Metal workers of this age used two types of technique for making weapons and implements- Mould casting and Cutting metal sheets. Eight to twelve percent tin was mixed with copper to make the tools of bronze. Metal smiths were aware of the technique of melting metal into mould and afterwards to strike it firmly with Hammer to provide proper shape to implements and they were also aware of lost wax process. The knives, arrows and other thin weapons and implements were made by cutting metal sheets. They had also the knowledge of the technique of joint metal sheet with mixture of bronze. The Indus people made rivet hole into the tang of weapons and fit them into a handle made of wood and metal.

The Chalcolithic people brought raw materials from the mines of Khetri, Singbhum etc. These people used cast technique for making axe, sword, dagger, spear and other weapons into mould and then after cooling it struck with hammer to give it proper shape. Stone tools were made by flaking, chipping with chisel and grinding. Metallurgy in the Chalcolithic period was not as good as in the Indus civilization.

Copper hoard weapons and implements were made from pure copper. They were made by casting in open or closed moulds or by cutting metal sheet. Some techniques of copper hoard people match with the techniques of the Indus people.

In the Rigvedic age, many weapons and implements were made of copper (Loh Ayas). Karmar (Black Smith) made these implements through casting metal into mould, striking with Hammer and afterwards grinding them. In Later Vedic age most of the weapons and implements were made of iron (Shayam Ayas). Metallurgical development was more prevalent in Later Vedic age than Rigvedic age. The weapons

and implements of this period were sharpened through rubbing at stone. The terms for tool makers were used as karmar, dhanushkar, ishukar, jyakar etc.

The people of Painted Grey Ware got iron ore from the mines of Loha Mandi (H.P.), Patiala (Punjab), Kumaun (U.K.). Metal workers of this age melted iron at the temperature of 800°C to 1540°C and cast into mould to make weapons and implements. Metal was spread to make the tools through heating and hammering. Afterwards it was dropped into water to make it strong. They were well acquainted with all these processes.

In the Indian Protohistoric Cultures, weapons and implements have played an important role in war, hunting, agriculture, trade, industry and in the development of technology. Metallurgy of these cultures has paved the way for the further development in the later phases. We are making progress; its credit goes to the progress of science and technology used for weapons and implements in the Protohistoric cultures. These cultures nurtured technical progress in their lap for hundreds of years.

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