

## **BRONZE AGE AND IRON AGE CULTURES IN XINJIANG, LIAISON TO HARAPPA: A RETROSPECT**

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**Abstract:** *The Xinjiang region located in the hinterland of Eurasia and in Northwest of China that lies in eastern Central Asia to the north and south of the Tian Shan mountain range. In the last some decades, some of the archaeological researches in Xinjiang have revealed the truth about this region that has been a crossroad of different cultures since the Bronze Age. This region has been the best choice to study about the ancient cultures such as Bronze Age and Iron Age cultures. The existed cemetery culture is the paramount source to carve out the historical events that happened in the above-mentioned Ages. The metal objects found from cemeteries in the regions of Xinjiang tell the ancient cultures that depict the social and religious phenomenon. Same cemetery culture also subsisted at Harappa Site, Pakistan. The focusing of this article is to analyze the metal artifacts recovered from the Xinjiang and Harappa site. Both Xinjiang and Harappa are significant regarding cemetery cultures. Through this manuscript, religious, social, and cultural aspects of Xinjiang and Harappa have been highlighted.*

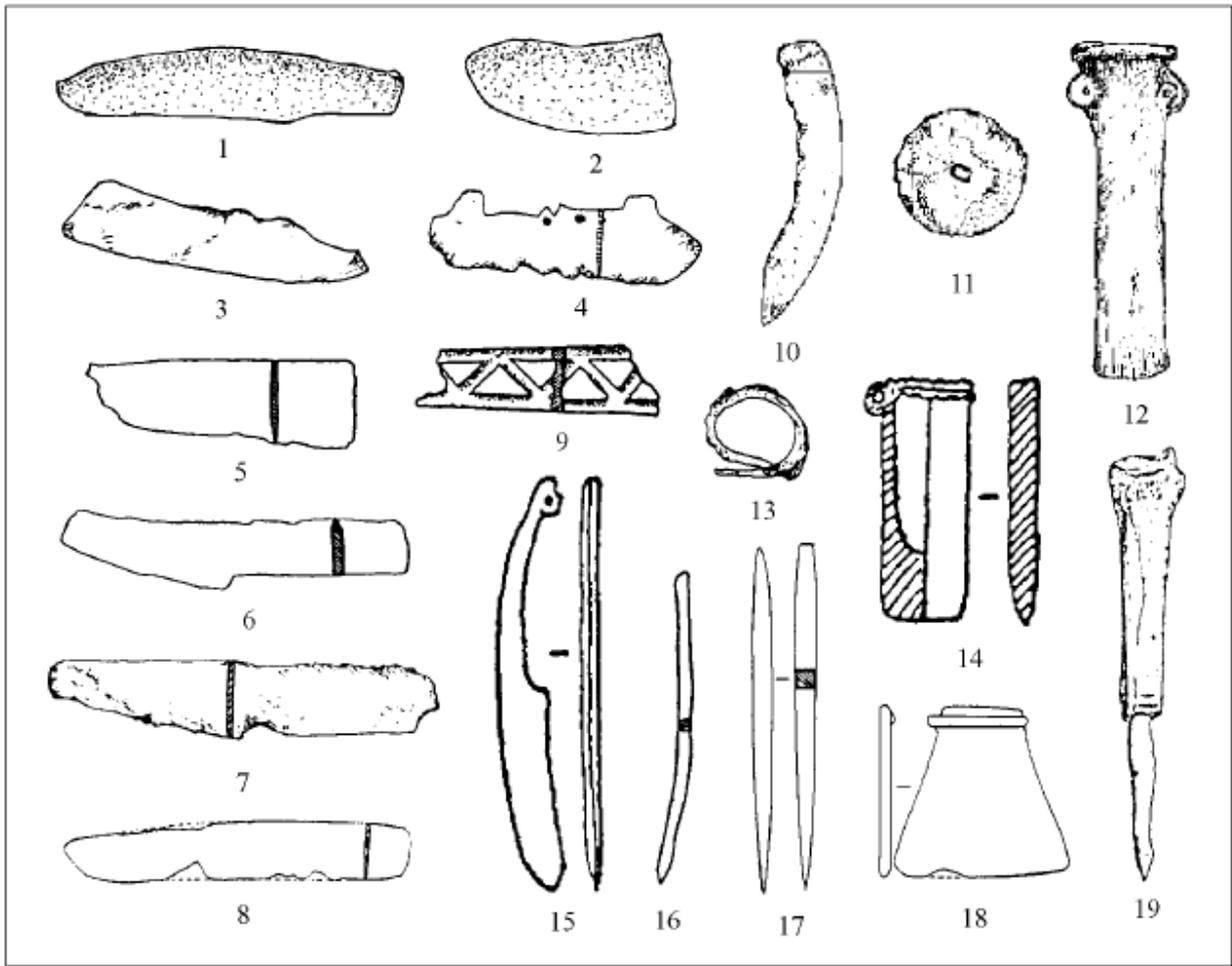
**Keywords:** *Bronze Age and Iron Age, Metal objects, Imperative sites, Xinjiang and Harappa*

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### **Introduction**

The use of metals and the growth of metallurgy in the western and eastern Asian complex societies have been the main characteristics in the ancient world (Linduff et al., 2009). From late 4<sup>th</sup> and 3<sup>rd</sup> millennia B.C, the initial sites have yielded metal objects in China (Linduff 1997; Mei, 2000). The first evidence of metal objects (Fig 1) belongs to Qijia!Siba in the region of Gansu that can be comparable to the sites in Xinjiang, in the west of China, and in the east and north sides, some famous sites like Inner Mongolia, Liaoning and Shandong, and Erlitou

in the Central Plain in the lowest level. So the Xinjiang region is also comparable with the ancient most societies having metal objects. Some of the archaeological excavations revealed the Pre-history of the Xinjiang. To know the east-west exchange in Prehistoric times, the sites in Xinjiang are imperative (Festa, 2017). About 10,000 years ago, the signs of human activities of Xinjiang have been noted (Jiang et al., 2013) that highlights the ancient cultures too. In this regard, this region has the earliest record of human activities which can be understood socially, religiously and to somewhat economically. But concise to the study of metal objects of Bronze Age and Iron Age, it is easy to depict the social, religious, and cultural activities of ancient masses in Xinjiang. In the 1950s the study of archaeo-metallurgical was begun in China (Mei et al., 2015). The first half of the Second Millennium B.C the signs of metallurgical usage after the analysis on Copper and Bronze age artifacts found in Xinjiang since the 1990s (Mei et al., 1998). The metal objects of Xiaohe Cemetery represent the Early Bronze Age (early and middle second millennium B.C), in the region of Xinjiang (Mei et al., 2013). Studying the Bronze Age and Iron Age of Xinjiang, different kinds of metal objects fabricate the solid consideration with the social, cultural and religious conditions of the ancient people of the vicinity. The origin of the early iron artifacts was exposed in primeval cemetery sites like Yanbulaq, Yanghai, Charwighul, Chong Bagh in the Xinjiang region (Mei et al., 2009). If we analyze the earliest important sites in China (Fig 2) many of the sites located in the Xinjiang region which represent the cemetery culture through which the number of metal artifacts have been traced out. So, this region is vital in the sense of metal objects and through studying these objects, the concrete bridge with social, religious and cultural has been fabricated by different scholars. As it has been unanimously admitted that Xinjiang is mountainous region and the division (Fig 3) of these mountains is, Altay Mountains, Yili valley region, Northern Tianshan Mountains, Southern Tianshan Mountains, East Xinjiang regions, Eastern Tarim Basin, Northern Kunlun Mountains and Pamir Highlands also portray the Bronze Age and Iron Age (Festa, 2017). Xinjiang is the key place to reveal the exchange of east-west cultures through Central Asia. But at the same time what was the cultural activities in South Asia especially in Harappa, Pakistan? The Indus Civilization is contemporary to Egyptian and Mesopotamian Civilizations, usually dated back to 2500 B.C. also known as Harappan Civilization (Patel et al., 2015). And Harappa is the mother site of Indus Valley. As Xinjiang, Harappa is also known well by its metals and ceramics. Almost every Harappan site has been recorded with the metal's objects, especially Harappa. The comparison of Xinjiang metal objects with the Harappan metal objects holds the interesting results. Most of the metal objects from Xinjiang have been recovered from different cemeteries as some metal objects recovered from two cemeteries named Cemetery-H and Cemetery R-37 at Harappa. But interesting facts show that metal objects from both Xinjiang and Harappa are same in varieties. These objects from both Xinjiang and Harappa depict the social, religious, and cultural values of the ancient peoples.



**Figure 1: Early Copper and Bronze Artifact Found from Qinghai and Gansu: From 3-19, Artifacts Found from Qijia Culture, And 1. Artifact Representing Linnia Site And 2. Artifact From Jiangjiaping Site (After Mei, 2003)**



**Figure 2: Some of The Major Ancient Archaeological Sites in China Including Xinjiang Representing the Bronze Age and Iron Age Cultures (After Mei Et Al., 2015)**



**Figure 3: Map Showing The Early Bronze Age and Iron Age Geographical Distribution of Xinjiang Region (After Linduff, K. M. 1998)**

### **Problem Statement**

To depict the ancient conditions of both Xinjiang and Harappa, some of the valuable questions are to be answered. Like how people lived? How was their social behavior? How were religious activities? And how was the cultural philosophy of the ancient people of the Xinjiang and Harappa? To come up with all these questions, the analyses on the metal objects are significant. Through this study, the social structures of both the societies will be built with the help of metal objects belong to Bronze Age and Iron Age of Xinjiang and Harappa.

### **Imperative Bronze Age and Iron Age Cultural Sites in Xinjiang**

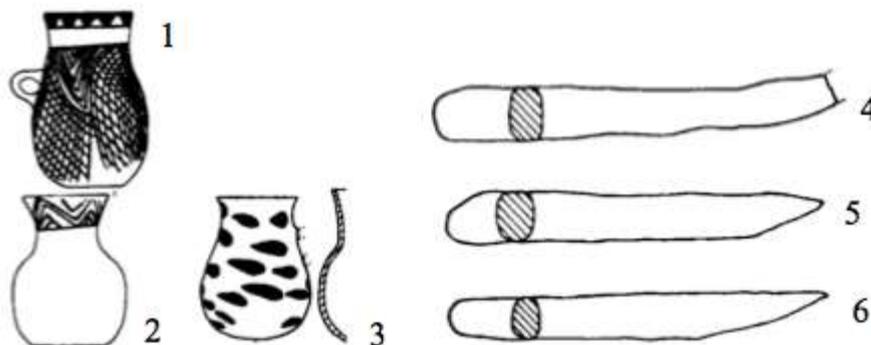
During the Bronze Age, the cultural relationship between East Asia (China) and Central Asia developed to a great extent (Jettmar, 1981). Thus, Xinjiang is the key region for the indication of east-west change respectively. The large area of the Xinjiang is comprised over desert which is harsh to live on due to this harshness most of the area is still vacant and human activities have been less since prehistoric time. Here since prehistoric time, some shred of evidence replicates the development of mixing of the human being and ecological behaviors. Here environmental conduct provides the milieu of the ancient remains that affected the aboriginal variants. In this respect, the ecological study of this region can be brought solid results as this study is a key to portray economics or ecology as American Archaeology started ECO Systematic Study for spatial movement of trade. Interestingly, in the late 1970s, the modern history of ecosystem services was started (Erik et al., 2009). On the western slope of Altay Mountains, a site representing both Bronze Age and Iron Age, called Qiemu'erqieke site. This site provides two phases of culture like Phase I and Phase II by having the unique vessels ( Fig 4), the Phase I vessels are similar to the vessels from Afanasevo and Okunevo cultures, and the Phase II vessels have high-necked attributes and some having iron items. Consequently, Phase I is assigned to Bronze Age and Phase II assigned to Iron Age respectively. Tianshan Mountains were intensively occupied by the inhabitants during Bronze and Iron Ages. In this

respect, The Sidaogou site is important noted with some houses and graves having some artifacts. Here, some of the copper artifacts as well as clay casting moulds also found that give ancient grave culture and social behaviors of the ancient people. And according to some scholars this site also assigned to Bronze Age and Iron Age. Another important site is Nanwan Cemetery (more than 100 graves). But the material got from M66 and M95, has been published in brief style. Here, mostly the burial goods were comprised over the unpainted pottery vessels which were placed aside the wooden coffins. With unpainted pottery vessels, some of the painted jars as well as bronze artifacts were also placed here (Cheng, 1985). Some of the earrings recovered from this site are imperative material among others. Cemeteries at Shuinichang and Liangzhongfang (Bronze Age sites) also have some objects including metal objects which recovered from here which enlighten the minds of the readers about 1000-700 (Festa, 2015). This date is determined after C14-dating method. Here some worthy copper objects found by the researchers. Another site called Nanshan (Xinjiang) remains (Fig 5) also have Bronze and Iron knives and awls depicting the metallurgical denomination of the region. Nanshan culture is different than Shuinichang and Liangzhongfang regarding burial rites. But the recovery of the knives from Nanshan and Shuinichang has the similarity regarding warfare metal objects. The Wulapo Cemetery and Aloggou I, assemblages are almost the same regarding existed material, this material was comprised over mirrors, copper and bronze artifacts, and pottery vessels too (Mei, 1942). In the Turfan Basin, some renowned cultures like Aidinghu, Gushi, and Subeixi and through the findings from these cultures, the metallurgical activities can be observed. Other cultures like Sazi, Gongliu, and Weixiao (Bronze Age), situated in Yili River valley and Tacheng region, can be recorded as the unique and valuable after assuming the metal objects. Another ancient culture of Luishi Cemetery that gives 1000 B.C Bronze located in the southern rim of the Tarim Basin, also precious one. Xiabanid, Yanbulake, Sidaogou, and Qiemu'erqieke represented the Bronze Age as well as Iron Age cultures. The Bronze Age material (Fig 6) from the cemetery of Liushiu (Xinjiang, China) is unique in different aspects. The recovery of bronze bridle bits and weaponry reveals the warfare as well as the domestication of the animal activities in the Bronze Age (Wagner et al., 2011). Some other material like gold earrings, gold foil pectoral, arrowheads made of bronze, bronze knives, presents the multidimensional approaches of Bronze Age in this region of Xinjiang. The other material like horse skull and sheep bones provides the mobile pastoralists activities in the Kunlun Mountains. Some cemetery sites have the signs of both Bronze Age and Iron Age like Yanghai cemetery. This site is situated in Shanshan County, Turfan having the unique material of both Bronze Age and Iron Age. Here is bimetallic artifact recovered from the tomb M5. This bimetallic artifact has the marks of both Ages (Mei et al., 2009). According some scholars the earliest Iron Age objects in Xinjiang is the bimetallic toggle which recovered from Yanghai cemetery, dated to 9<sup>th</sup> Century BC (Xia et al., 2004). Another key site in Xinjiang regarding early Bronze Age is called Aduun Chuluu Cemetery (Arixang). Here, plenty of small bronze objects, gold-filled bronze earrings, bronze beads and other important artifacts recovered (Wu, 2002). According to Chinese Archaeology Report (2014), during the Bronze Age, Xinjiang has been proved as the region that had the connection with Eurasian Steppes. And this verdict was supported after analyzing the material got in above-mentioned age. Still, much of the work is left to carve out the true facts as well. Peeping into the past works, it is only from the mid-1980s that the archaeological excavations started to reveal considerable evidence for the existence of diverse Bronze Age and Iron Age cultures throughout Xinjiang (Debaine-Francfort 1988, 1989; Shui 1993; Chen and Hiebert 1995; Lü *et al.* 2001). There major Bronze Age sites found in eastern Xinjiang including cemeteries at Tianshanbeilu, Wupu, and Nanwan (Mei, 2003). Studying these sites,

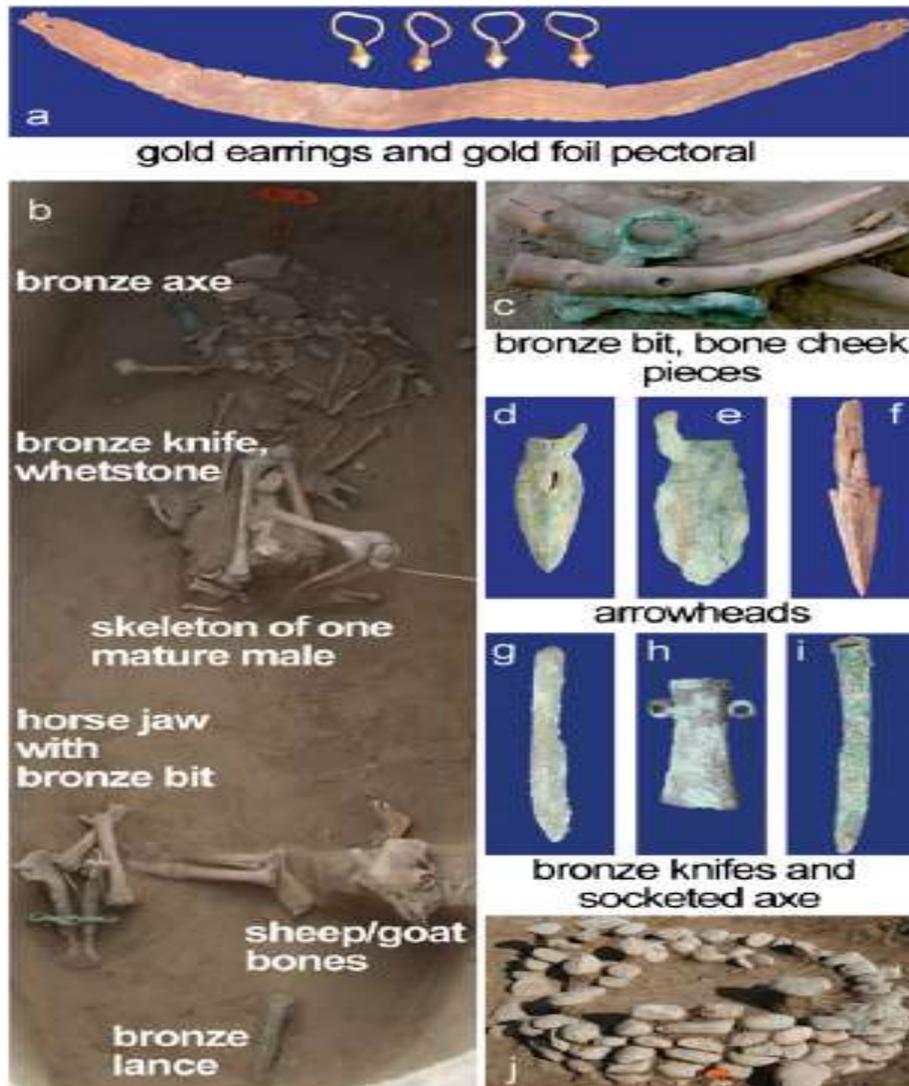
Tianshanbeilu is considered to be the largest and earliest, dated back to mid-second millennium BC, with some finds extending back to the beginning of the 2<sup>nd</sup> millennium BC.



**Figure 4: Some Artifacts Recovered from Qiemu'erqieke I: 1-4 Are Stone Items, 6, Casting Moulds, 3-5, Pottery Vessels and 7, Copper Implements (After Jia Et Al., 2010)**



**Figure 5: Remains Recovered from Nanshan Site: From 1-3, Painted Pottery, and 4-6, Iron Knives (After, Xinjiang Wenwu Kaogu Yanjiusuo, 1999)**



**Figure 6: Archaeological Finds from Liushui Graveyard (After Wagner Et Al., 2011)**

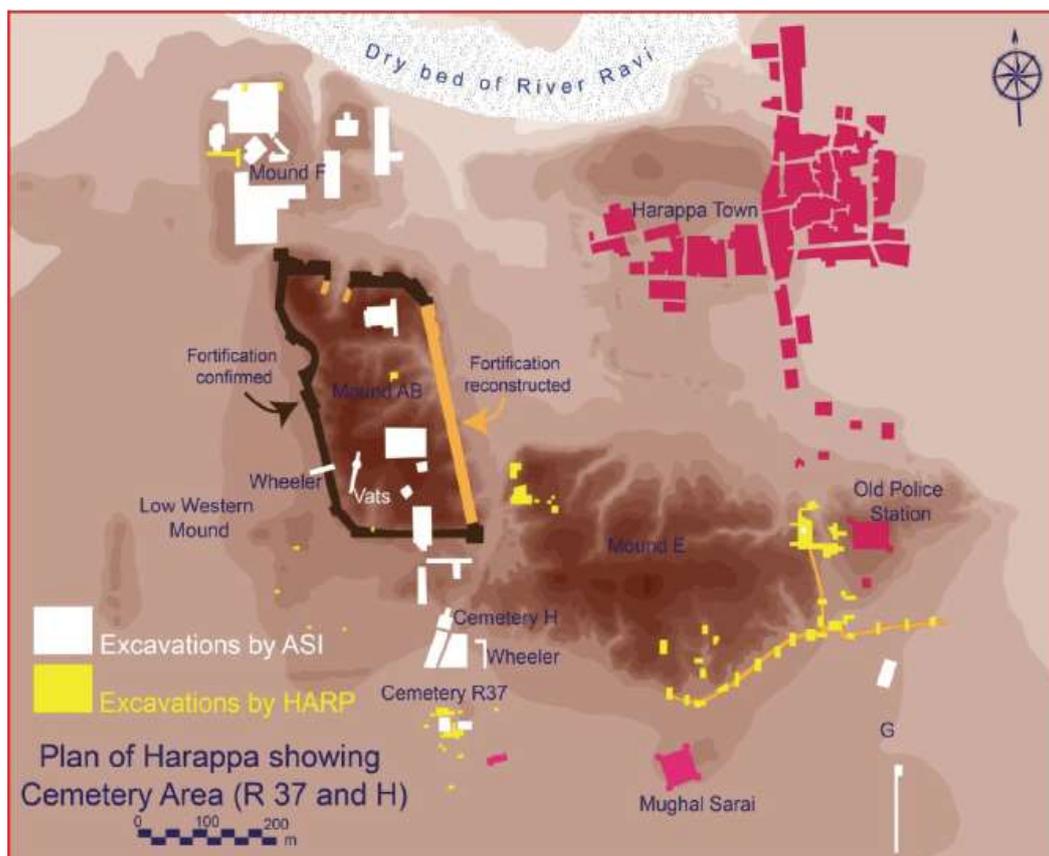
**Bronze Age (3300 B.C) and Iron Age (1400 B.C) Cultures in Harappa**

Indus Valley Civilization or Harappan Civilization is usually named after Harappa village in Pakistan, being a reported the first archaeological site ever of the same civilization (Dibyopama et al., 2015). The culture of Indus Valley Civilization is the chief urbanized culture in the ancient world (Agrawal, 2007; Possehl, 2002; Wright, 2010). Indus Valley Civilization has large territory (Fig 7) that shows its grandeur. It is comprised over the highland's territories of Baluchistan, Afghanistan, some parts from Gujrat and Kutch that depict the greater Indus Valley (Mughal, 1970). The metal objects form a major class of grouping exposed from each of the Indus Valley sites (Mackay, 1938; Vats, 1940; Lal, 1979). Mainly this civilization has Harappa as its mother site. Because of this title, Harappa is important in every aspect to learn about this civilization. With Harappa, some other important metropolitan cities of Harappan Civilization like Mohenjodaro, Mehargarh, Ganweriwala, Kalibangan, Lothal,

and Dhulavia have been crucial about the material like minerals and metals. As far as Harappan metal objects of Harappa is observed, Harappa was an imperative manufacturing hub of metal objects (Possehl, 1982). Here, many of the furnaces have been recorded by many scholars. In bronze metallurgy, scrap bronze is considered as a source of tin, terracotta animal toys, grey granite, finer textured, and yellowish limestone etc. (Biswas, 2011). The best display of metal objects of Harappa is shown in cemetery culture. The cemetery culture is represented Cemetery H as well as Cemetery R-37 respectively. Further, cemetery site named as Cemetery-H came to light due to natural weathering in the year of 1927, later in 1987- 1988; the Cemetery R-37 was discovered by K.N. Sastri. In Harappa, gold ornaments, silver, and copper were used in the late period (Biswas, 2011). And the scrap bronze has been gained as the specimen in archaeological perspectives (Hegde, 1982; Agrawal, 1984). There was variety in the metal objects belonging to Harappa. The metal tools of Harappa were comprised of knives, razors, arrowheads, chisels, spear-heads, fish-hooks, and axes (Agarwal, 1984). Mature Harappan Phase is vital about the usage of copper objects like most of the analyzed metal artifacts recovered from the main urban centers which related to Mature Harappan Phase dated between 2600-1900 B.C (Agrawal, 2001). This indicates the supremacy of the metal objects in Harappa. Every metal shows the different functions of the society in ancient times. Most probably the domestic purposes related to metal objects are prominent. The findings of metal objects from the Harappan site have been evidenced by different archaeologists. But the most vital finding was the jar no. 277 from Mound F (M11/15) that had blades-axes, narrow and long axes, double-axes, daggers, spearheads, knives, saws, chisels, thick rectangular copper-pieces, sheets of copper, etc. (vats, 1940). The collection of these metal objects takes the scholars to the realm of Harappan metallurgical activities as well as the burial cultures of Harappa. As far as burial customs of South Asia are observed, it is recorded back to Mesolithic times. But in the context of Neolithic times, it gives the traces of Mehargarh site, Pakistan. The traces of burial practices in the urban phase of Harappa, the placement of burial goods with dead bodies inside the pit has some variations in Harappan Civilization (Prabhakar, 2012). Among those burial goods, mostly pottery and metal objects were placed with the dead bodies in Harappa. Overall, claims by the scholars are that Harappa and Kalibangan sites have multiple shreds of evidence of burial practices. Reference of metal objects with burial practices is obvious having no ambiguity. On the other side, all the ancient cities of Harappan Civilization have the records of bronze and copper objects. The cities' plans were systematic and social based. The cities of Harappan Civilization were well-structured, having household areas, and some of the craft areas, cities surrounded by walls and gateways. With this, artisans made a remarkable array of objects, some magnificent pottery, and jewelry, some bronze and copper objects. This shows the widespread of metal objects in the lives of ancient Harappan people. On the contrary side, Harappan Civilization also has extensive use of gold objects, but mostly found from Mohenjodaro. In Iron Age, Harappan traditions refer to the religious and cultural denomination in this land. The burial rituals were practiced in widespread. Cemetery R-34 and Cemetery H area provide the rich evidence of burial practices in Iron Age. The skeletons were mostly buried in extend location, to the north side with the head posture. In Iron Age, mostly grave-pits were from 10 to 15 feet in length, two and a half feet to 10 feet in width with the depth of two to three feet (Vaidya et al., 2013). From the head side, the grave-pit was in wider in length because of the great numbers of burial plots placed in that place. With this, some of the artifacts like metal objects as well as pottery were placed in the sides of the skeleton and foot sides. Somewhat, the pottery with the motifs of birds shows the animal sacrifices with the connection of burial practices in the Iron Age. In the Iron Age, the animal figurines also found in some places show the animal sacrifices as well. In this period, the importance of sacrificial animals was strongly practiced by the Harappan people. On the whole, Harappa has been recorded as



beliefs of the Harappan people. The motifs of birds and animal on ceramics and the existence of terracotta figurines are other important facts of the burial practices. All these things have been well observed with the context of Bronze Age and Iron Age. It is also a fact that in the later period, the Gandhara Grave culture also emerged in some of the areas of Present-day Pakistan. This Gandhara Grave culture represents the Gandhara Civilization in its own demonstration. Harappa ( $30^{\circ}37'44''\text{N } 72^{\circ}51'50''\text{E}$ ) is an important archaeological site that is situated in present-day Pakistan. If we peep into the past excavations of Harappa, it has been done by local and foreign archaeologists. The Sequence of these excavations is, Alexander Cunningham (1853 and 1856), Daya Ram Sahni and M.S. Vats (1920-21 to 1933-34), K.N.Sastri(1937), R.E.M. Wheeler(1946), M.R.Mughal (1987 to 2001). Later on J.F. Dales, J.M. Kenoyer and others. In almost all the above-mentioned excavation the burial practices have been recorded and interpreted with the pieces of evidence of metal objects. Inside the graves, water pots, plates, offering dishes, flasks and some vases found too (Vats, 1974). The narrators of most important cemeteries, Cemetery R-37 and Cemetery-H have been unanimously agreed upon that these both cemeteries display the best of metal objects. The most interesting thing about these cemeteries is, these both are close to each other as shown in the plan of Harappa (Fig 8).



**Figure 8: Plan of Harappa Showing the Cemetery R-37 and Cemetery-H (After Prabhakar, 2015)**



**Figure 8: (A) Some Views of Cemetery-H(After Prabhakar, 2015)**



**Figure 8: (B) Primary Burial Posture, Cemetery R-37(After Nancy, 2014)**

In this plan, two kinds of excavations are displayed, one by Archaeological Survey of India (ASI) with the white color and yellow one by Harappa. With metal objects, there have been recorded bones of adults, children, and babies too. Some of the big painted burial pots have bones in its inner bottom that shows the unique rituals of the ancient people of Harappa. These burial pots got in its out surface with the treatment of paintings that mostly shows the floral patterns as well as geometrical designs respectively. According to V.N. Prabhakar, there were

long-horned and quadrupeds inside the burial pots that represent the birds and animals. Cemetery R-37 and Cemetery-H (Fig, 8), both the cemeteries represent the burial cultures. But these both cemeteries have different Eras that depict the existence of burial practices in different phases of Harappa from its Bronze Age culture to Iron Age culture. Metallurgical activities have also been traced out of ancient Harappa after assuming the usage of metal objects in the society. With this religious, social, and cultural activities also have been outlined through past works, done at Harappa.

### **Metal Technology of Harappan Civilization**

The Harappan Phase is called as integration Era, during (2600-1900 B.C.), in this phase, the metallurgical activities were also practiced with other activities and technologies. As above mentioned points, the metal objects have very essential to the scholars to penetrate the accuracy of the Indus archaeology. On the contrary side, metal objects have been neglected in early stages but later on, some manuscripts cleared the minds of scholars about metal objects of Harappa. In early excavations, the finding of metal objects from Harappa was taken as the metal objects got from Mohenjodaro. Many of the metal objects have been recorded as findings only but still, the typology of the metal objects has been less focused on. With Harappa, Mohenjodaro and Lothal also have the worth record about metal objects as these two ancient cities of Harappan Civilization as the major and metropolitan cities ranked with the Harappa. It is fortunate, that in early excavations the metal objects were treated with chemical and physical analysis both in Mohenjodaro and Harappa (Desch, 1931). During integration Phase as above mentioned, mostly metal objects were made of copper in common practices. According to Agarawal, the ancient people of Harappa used commonly the copper objects as well as tin Bronze ingots, in his research done in 1971. There are also some proofs of smelting and crucibles. According to Miller, some fragments of crucible rim and prills of copper found from the Harappa site (Miller 1994a). Auspiciously, at Harappa site, there is one Kiln out of four other Kilns existed that shows the copper processing in Harappa. The evidence of casting, cutting, and finishing of the metal objects has also been traced out by different scholars too. With the recovery of copper/bronze objects, some of the copper beads have also been recovered with some of the hoards respectively. The existence of a metal mirror is also another important aspect of metallurgical activities in Harappa during the Harappa Phase. The most appealing feature of the metal objects, during Harappan Phase (2600-1900 B.C), some of the metal objects like Chisels, Adzes, Axes, Spears, and others got some inscriptions, ritual motifs, and some other obscure symbols, take the scholars to the realm of metal tools with uniqueness in styles or designs of the ancient Harappan people. As for as Harappa is concerned, many of the objects like blades, knives, saws, arrow-heads, battle axe, etc. were made of copper alloys in Indus Valley Civilization (Vidale et al., 2000).

The whole society of the Harappa in ancient times can be outlined by mere the deep study of metal objects that represent the social, cultural, religious, and economic conditions of the Harappa.

### **Metal Objects of Xinjiang and Harappa: a Comparison**

The ancient cultures have been represented very well like the Egyptian, Mesopotamian, and Chinese (Vaidya et al., 2013). All the ancient cultures have some attributes which make these ancient cultures unique and distinguished. Some of the attributes have been commonly found in ancient cultures like Egyptian, Mesopotamian, Chinese and then Harappan. In ancient times, Xinjiang was the part of the Eurasian culture or Central Asia, located on the eastern side of Central Asia. This area is important because it is considered to be the gateway from eastern

Asia to Central Asia and then to Europe. This region also has been the main hub of “Silk Road”. On the other side, Harappa has been entitled with “mother site” or foundation site of Harappan Civilization because the initial or primary material got from this site. Both Xinjiang and Harappa have also been important expanses about the cemetery cultures. As compare to Xinjiang, Harappa has less cemetery site but two prominent are Cemetery R-37 and Cemetery-H. In Xinjiang, the diversity in cemetery culture is identified with the findings of metal objects and others. Many cemetery sites in Xinjiang represent both Chinese and Central Asian grave culture. Many aspects of the metal objects of Bronze Age and Iron Age Cultures are similar of both Xinjiang and Harappa, discussed here.

### ***Cemetery Cultures and Metal Objects***

Both Xinjiang and Harappa have a deep essence of cemetery cultures in the past. The finding of these cemeteries is comprised over many things especially metal objects. These metal objects have placed inside the pit for having different purposes like sacrifices or the concept of “Life after death”. The concept of life after death has been recorded in almost all ancient cultures like Egyptian, Mesopotamian, and Chinese. If we peep into past, Central Asia also have clues of cemetery culture like Anau site in Turkmenistan. At Anau, there was a cemetery contained mostly the children bodies (Miller, 2003). Such traditions also found the cemetery of the Xiaohe, Xinjiang (China), so, this region shaped a solid connection with Eurasian sites and became a key place to form the bridge from east to west (Li et al., 2013). This shows the evidence of cemetery cultures found both in Xinjiang and Central Asia. So, the cemetery culture of Xinjiang is very much close to Central Asia. The cemetery cultures of Cemetery R-37 and Cemetery-H represent the ancient cultures like Indus Valley and later on Gandhara Grave Culture. The cemeteries from Xinjiang and Harappa have some metal objects too. The metal objects of Cemetery R-37 and Cemetery-H represent some of the rituals done in ancient times same as in Xinjiang. In Xinjiang, there are also some other cultures like Aidinghu culture, Gushi culture and Subeixi culture, and Liushi cemetery that mostly represent the Bronze Age culture having records of metal objects. The placement of the metal objects in the pits has similarities like the cemeteries in Xinjiang and Harappa have been recorded with the metal objects in the pits those have been placed in the sides of the skeleton, from the head and foot sides, or sometimes, in burial pots close to the dead bodies.

### ***Typology of Metal Objects***

The metallurgical activities are evidenced both in Xinjiang and Harappa. In all Harappan ancient cities like Mohenjo-Daro, Harappa, Lothal, and Dhulavira have been attributed with the verification of metallurgical activities. Same activities also has been happened in the Xinjiang regions. The typology of the metal artifacts almost contains the similarities. The daggers, axes, chisels, arrow-heads, bronze knives, spears, copper implements, etc. Some of the motifs and designs on the outer surface of the metal objects represent the floral pattern and the depiction of animals of ancient Xinjiang and Harappa. The animal figurines take the scholars in the realm of ritualism. Above mentioned metal artifacts have been evidenced both in bronze and iron metallurgy. The Harappan metal objects (Fig 9) also have the diversities like some of them made of warfare and some of them for rituals like Xinjiang.



**9 (a) Indus Valley  
Copper Artifacts  
(Harappa.com)**



**9 (b) Metal Objects of  
Warfare Harappa  
(Harappa.com)**



**9 (c) Copper  
Bangle from  
(Harappa.com)**

***Metal Artifacts as Orators of Religious and Social Practices in Xinjiang and Harappa***

Both the cultures like Bronze Age culture from 2000 to 1000 B.C and Iron Age culture from 1000 to 200 B.C represent the religious and social practices through objects (Wang, 1985). It shows the long strip of time from Bronze Age to Iron Age in Xinjiang that depicts the exchange of one culture to another. Xinjiang regions also have been the abode of different government or tribes that is why the diversity in culture existed. But the concept of life after death and religious beliefs, have been found in all the tribes from the Bronze Age to Iron Age. Same social and religious beliefs found in Harappa Civilization, from Mehargarh to Cemetery-H. People of Harappa and Xinjiang were very much rich in their social practices as they represented social norms, living in social communities, and households activities. Through metal objects, the warfare activities also traced out. But some of the metal objects represent the normal life activities like farming. The use of chisels also leads the scholars towards the daily life activities. Metal objects from Harappa are the orators of metallurgical practice in the society same in Xinjiang.

***Metal Objects and Ecology***

In the study of ancient civilizations, there can be no cultural ecology without economics in this regard; Fredrick Barth was the first one who deliberately promoted the ecological archaeology (Barth, 1950). The ecological context for ancient cultures depicts the paleoenvironmental conditions of the society. The extensive use of metal objects in the society also gives some clues about the economics, as a trade. In Xinjiang and Harappa both have been the mix blends of different Eras, but as far as Bronze Age and Iron Age cultures are observed, both the regions were also equipped with the understanding of economics, especially trade, that demonstrates the ecology of the ancient times. This trade was with foreigners or within the premises of state like in the Shang Dynasty. According to K.C. Chang, “*the Bronze Age took place during the Shang Dynasty. As a result, bronze was a large part of the trade. Bronze was used to make chariots, vessels, weapons, and even instruments. Bronze was very important to the Shang*

*Dynasty. Bronze casters made instruments from bronze such as the Xun, and drums. Sculptors carved designs into bronze, jade, and pottery. State capacity matters for economic growth in the Shang Dynasty were the attributes of the state. So, ecologically diverse environments of Shang Dynasty had more centralized”.*

### ***Similarities in Jewelry***

Adunqiaolu is the site situated in the Xinjiang regions that depict the Bronze Age culture. The metal objects are rich in designs. Findings from this site are deliberately showing the appropriateness in the making of metal objects. Trumpet-shaped gold inlaid bronze earring and the copper bangle from Harappa have resembled each other regarding shape. The same earring from Adunqiaolu also found from Aduun Chuluu, Xinjiang, called Gold-filled bronze earring. The making of Harappan bangle was done with the help of round hammered rod bent in a full circle. The Xinjiang region holds the position as the bridge between eastern to central Asia and then Europe. But after assuming the shape of these two ornaments its links are assured regarding metal objects with South Asia (Harappa) as well.



**(a) Trumpet-shaped Gold Inlaid Bronze from Adunqiaolu, Xinjiang**



**(b) Gold-Filled Bronze Earring Unearthed from Aduun Chuluu, Xinjiang**



**(c) Copper Bangle from Harappa**

### ***Ceramics and Metal Objects***

Bronze Age and Iron Age cultures of both Xinjiang and Harappa signify the ceramics. Most of the ceramics have been functionalized as the domestication or households. The burial practices of ceramics with the placement of metal objects also have been recorded In Xinjiang

and Harappa. Mostly, the big pot contains the bones in it, evidenced in above-mentioned regions. As observing Cemetery R-37 and Cemetery-H, the burial pots were placed with the skeleton from head side, foot side and sometimes left or right sides. The Same tradition is also found in Xiangbaobao Cemetery, Kazi'ertu'er Cemetery, Baozidong Cemetery, Tiemulike Site, Sazi Cemetery, Dongfengchang, Nanshan Site, and Shuinichang Site(Festa,2017). In many cases, the metal objects were also placed with ceramics like painted pottery.

### ***Domestic Activities in Xinjiang and Harappa in Bronze Age and Iron Age***

It has been recorded that Qiemu'erqieke site gives some clues about the funerary activities. These activities have been carried out as the custom of ancient people of Bronze Age and Iron Age, as this site has the attributes of these both ages. Some of the domestic signs have been traced out from the site of Sidaogou, there the designing on ceramics depict the regular practices of the designing of the outer surfaces of the ceramics. Banjiegou site has also been attributed with the same culture found in Sidaogou site. Same activities have also been recorded in Harappa in Bronze Age and Iron Age. The designing on the outer surfaces of the ceramics as well as the signs of funerary activities after analyzing the cemetery sites in Harappa. The extensive use of chisel in both Xinjiang and Harappa denominate the domestic functions like farming. Some of the sites in Xinjiang, as well as Harappa, had been documented with the artifacts that have the same attributes of shapes and purposes. The shape of the chisel is almost same in both the ancient cultures as well. After studying the artifacts, especially metal artifacts give clues that some of the social practices of both Xinjiang and Harappa were same in Bronze Age and Iron Age.

### **Conclusion**

Xinjiang and Harappa both have been representing the ancient cultures in unique ways. Xinjiang is the abode of different cultures because this region has been the center for different tribes and governments from Bronze Age to Iron Age. The other important aspect of Xinjiang, geographically this region has also been considered significant one because Xinjiang played its part as the bridge between East Asia to Central Asia and then Europe. The trade activities from East Asia to central and western regions have been executed in ancient times and the best part was played by Xinjiang. The best features of Eurasian cultures and Chinese cultures can be seen in the regions of Xinjiang. It has been considered that Xinjiang only represents the Eurasian and Chinese cultures but after assuming the metal objects from the Bronze Age and Iron Age, its culture also has roots to Southern Asia, especially Pakistan. The common social, religious, and anthropological of Xinjiang and Harappa are representing the cemetery culture, warfare activities, domestication, household activities, etc. The attributes of artifacts also present the relationship between Xinjiang and Harappa regarding shape, purposes, and material as well. The pre-history of both the region also tells the same activities and ancient people belong to these regions. But still, harmony between these regions regarding paleo-environmental conditions as well as ecology need further research for good results. Another vital aspect is the research and analysis of artifacts can also give more solid clues about the relationship of Xinjiang and Harappa in Bronze Age and Iron Age. The deep analysis on artifacts of Site Museum of Harappa and Regional Museum of Urumqi can also produce useful outcomes for researchers. The new excavations in these regions can also be useful for futures strategies.

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