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# A Review of Chalcolithic/Bronze Age Researches in Afghanistan

Abdul Hafiz Latify<sup>1</sup> and Vrushab Mahesh<sup>1</sup>

<sup>1</sup>. Department of Archaeology and Ancient History, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat – 390 002, India (Email: latify.hafiz-aahphd@msubaroda.ac.in; vrushab.mahesh-padra@msubaroda.ac.in)

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**Abstract:** *Researches on the Later Prehistoric Periods (Chalcolithic/Bronze Age) in the region of modern day Afghanistan began in the early part of twentieth century. Despite over a century of archaeological investigations on the Later Prehistoric Periods, we still do not have a comprehensive picture of the cultural developments that took place during this period in the region. Studies on the Later Prehistoric Period here received impetus following the excavations at the sites of Mundigak and Deh Morasi Gundai in the 1950's and 1960's. Subsequent studies on the Chalcolithic/Bronze Age sites in Afghanistan demonstrated that the material culture unearthed from various sites here reveal remarkable similarities with those found elsewhere in South Asia, Central Asia and Iran. These discoveries along with the geographical location of Afghanistan, and its abundant resources prompted archaeologists to undertake researches here to understand the development of Chalcolithic/Bronze Age Cultures here and the nature of interaction networks between the contemporary neighbouring civilizations. Although these researches are limited in nature, it nevertheless clearly demonstrated that the Chalcolithic/Bronze Age settlements in Afghanistan underwent fundamental socio-cultural changes and ecological adjustments. This paper on the aforesaid context presents a review of the researchers undertaken on the Bronze Age/Chalcolithic Cultures in Afghanistan and highlights the shortcomings in the overall understanding of the cultural significance of the period in the region.*

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**Keywords:** Bronze Age, Chalcolithic, Afghanistan, Central Asia, South Asia, Trade, Socio-Cultural Contacts

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## Introduction

The region of modern day Afghanistan owing to its favourable location along the silk route, served as the crossroads of the ancient world. In addition, the presence of abundant resources such as tin, copper, lapis lazuli and other natural sources attracted traders and conquerors alike since ancient times. The region located in the center of four ecological zones, spread across Central and South Asia, has revealed an extreme density of archaeological sites, each with distinct cultural and artistic characteristics that exhibit evidence of multitudinous interregional connections. However, despite its rich archaeological potentials, very little is known of the cultural antiquity of the region

prior to the Hellenistic culture. This preferential neglect of investigating into the prehistoric antiquity of the region was primarily due to the 'time bound research priorities' of the early antiquarians, who besides 'obsessing' upon the magnificent remains of the Hellenistic Culture, were of the firm imperialist belief that Afghanistan is a land of unmitigated barbarism, where there is hardly any chance for an indigenous development of a civilization (Srivastava 1996).

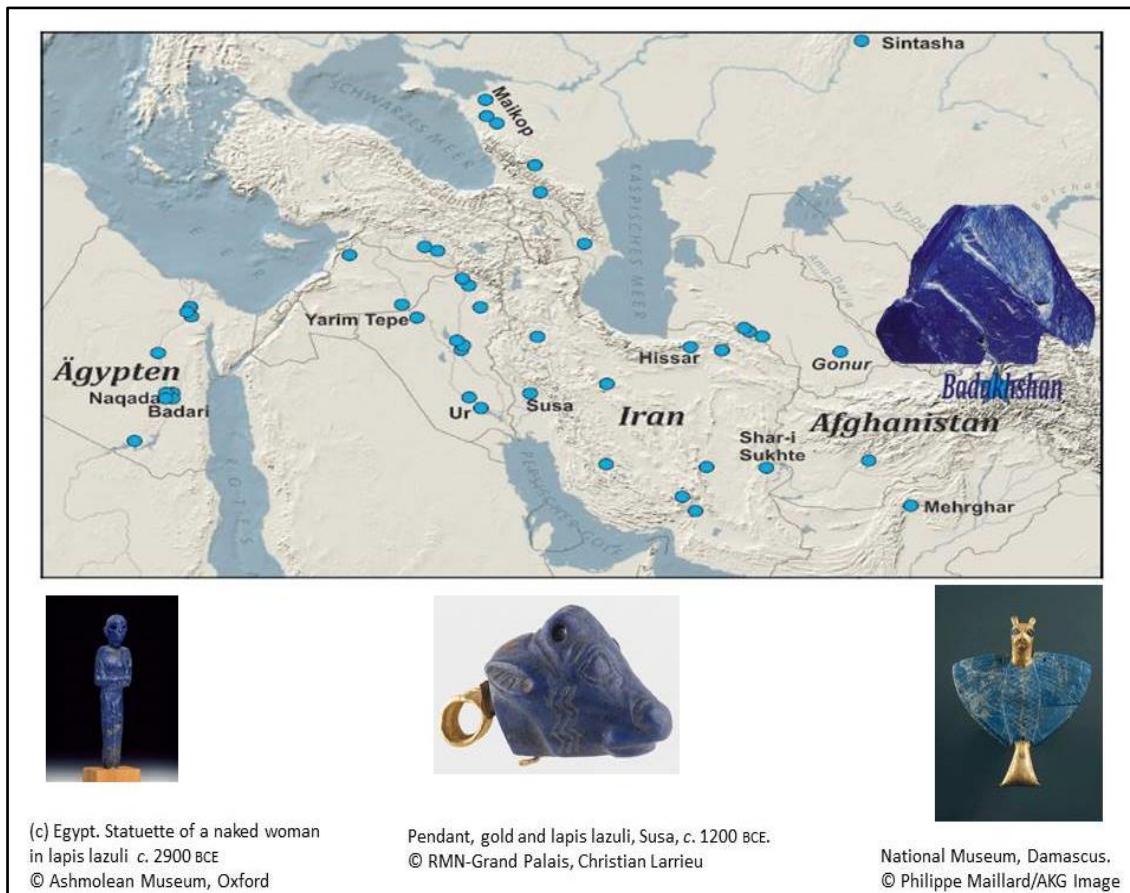


Figure 1: Distribution of Lapis Lazuli from Afghanistan during the 4<sup>th</sup> – 3<sup>rd</sup> millennium BC (Adapted Thomalsky et al. 2013)

Since the 1950's, archaeological investigations although limited, have successfully revealed the flourishing of Bronze Age/Chalcolithic settlements in the region (Tosi and Wardak 1972). These Bronze Age/Chalcolithic settlements have been characterized by Shaffer (1978) as to belonging to the Late Prehistoric periods of Afghanistan. Further, studies have also established that during this period raw material such as lapis lazuli – even as early as 7<sup>th</sup> Millennium BC – (Figure 1) and tin were exported from Afghanistan to areas of other great civilizations of the ancient world such as South Asia, Egypt, the Mediterranean Coast, Mesopotamia, and Greece (Muhly 1985; Jarrige 1991; Bertille 2001; Bajema 2013: 409; Thomalsky *et al.*, 2013; Law 2014: 419). Archaeological evidence from Afghanistan reveals that objects datable to this period shared motifs and other traits with objects produced by neighbouring regions such as

the Indus Valley Civilization, Eastern Iran, Central Asia and deep inside the mainland India's Chalcolithic Age cultures beyond the boundaries of Indus Valley Civilization, such as Ahar Culture (Shaffer 1971, 1978; Possehl et. al. 2004).

In order to understand the Later Prehistoric Periods of Afghanistan, it is essential to have a look at some general, but very significant, aspects of the Prehistoric Period as rightly pointed out by Shaffer (1978) that human occupation of the modern area of Afghanistan has a considerable antiquity and these indigenous hunters and gatherers were constantly undergoing socio-cultural changes in response to their ecological contingencies. Therefore, these fundamental background of human inhabitation in this region, allow us to examine and explain the later prehistoric cultural developments as an indigenous processes rather than to attribute them to the movement of people and traits from the areas in the West to Afghanistan (Shaffer 1978: 71). This paper in the aforesaid context presents a review of the researchers undertaken on the Bronze Age/ Chalcolithic Cultures in Afghanistan and highlights the shortcomings in the overall understanding of the cultural significance of the period in the region.

## **Afghanistan: A Brief Physiographic Profile**

Geographically, Afghanistan is a land locked country. The mountainous region covers two-thirds of Afghanistan. In this area, there are two main set of mountain chains, one of which sweeps south-southwest from the Pamir along the Indus valley towards the Persian Gulf; the other splits into two branches, decreasing in height until it vanishes into the Helmand basin. The Hindu Kush Mountain divides Afghanistan into three distinct geographic regions: the Central Highlands, the Northern Plains, and the Southern Plateau (Bowlby 1978).

The Central Highlands encompasses the narrow valleys and high mountains. The climate of this area is warm and dry during the summer and very cold during the winter. The Northern Plains consists of extremely fertile foothills and plains in which most of the country's agriculture thrives. In addition, this region is abundant in mineral resources and natural gas deposits. The Southern Plateau is made up of high plateaus and sandy deserts. The soils here is not much fertile, except along the rivers in the southwest (Bowlby 1978).

The major rivers of Afghanistan are: a) Amu Darya (Oxus River), with a course of 2,540 Km, flows across the northern parts of the country and forms the frontier between Tajikistan and Uzbekistan. b) The Helmand River which has a course of 1,150 Km, flows towards the southern parts of Afghanistan and empties into the highly saline seasonal lakes in Sistan. c) The Harirud River which has a course of 1,100 Km flows westward to the south of Herat and after irrigating the fertile lands of the valley, turns north and forms the border between Afghanistan and Iran and then crosses into Turkmenistan and disappears in the Karakum Desert. d) Kabul River which flows eastward joins the Indus River in its final stage. It has a course of 700 Km (Figure 2) (Eugene 2001).



Figure 2: Major Rivers and Geographic Regions (Adapted www.mapsofworld.com)

A significant feature of modern Afghanistan is the diversity of methods of subsistence strategies practiced which include nomadism, hunting and gathering and settled agriculture. Due to its strong relief, different environments can be found relatively close to each other. This feature would have been particularly helpful to prehistoric populations with their limited technology and small sized groups. It must have also been important in times of adverse climatic conditions since prehistoric populations could always move from areas with deteriorating climatic conditions to more favourable ones, without the need to move very far. This variety of habitats is a feature that is likely to have encouraged trade and exchange within the country (Bowlby 1978).

### Previous Researches on the Bronze Age/Chalcolithic Cultures in Modern Afghanistan

Studies on the artefactual assemblages of the Indus Valley Civilization and the Bronze Age Cultures in Iran and Central Asia have highlighted certain similarities and also suggested interregional interactions between them (Lamberg-Karlovsky and Tosi, 1973; Cortesi, et. al. 2008; Kohl and Lyonnet 2008; Frenez 2018). The region of modern Afghanistan, which lay along these lines of communication, may have served as transit zone between the aforesaid focal points of early civilizations in the region (Ball 2008). These integral factors attracted archaeologists to explore the archaeological potentials of the region during the Bronze Age/Chalcolithic period. Archaeological investigations

on the Bronze Age/Chalcolithic period in Afghanistan resulted in unraveling of the existence of multiple Bronze Age/Chalcolithic settlements such as Mundigak (Casal 1961), Deh Morasi Ghundai (Dupree 1963), and Said Qala Tepe (Fairservis, 1952; Shaffer 1971, 1972) in the south and Chalcolithic/Bronze Age levels at Ghari-i-Mar (Dupree 1972), Tepe Fullol (Tosi and Wardak 1972), Dashli Oasis, Farukabad (Sarianidi 1971), and Shortughai (Francfort 1984) in the north (Figure 3). Since then more than a fifty sites belonging to this period have been identified. The following section presents a brief description of the Bronze Age/Chalcolithic settlements of Afghanistan, which for better explanation may be divided into Southern and Northern Afghanistan.

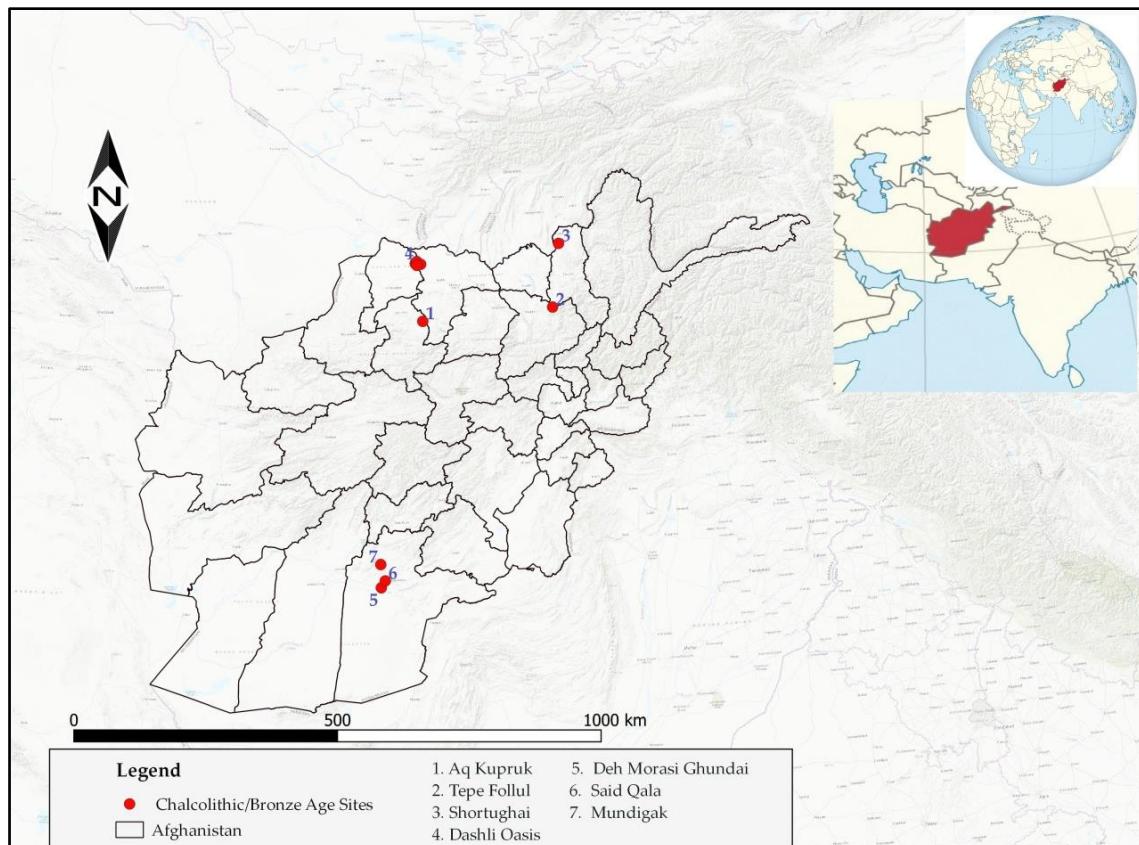


Figure 3: Map of Major Chalcolithic/Bronze Age Sites in Afghanistan

### Bronze Age/Chalcolithic Sites in Southern Afghanistan

At present our knowledge for the area of Southern Afghanistan comes from the excavations at three sites- Mundigak (Casal 1961), Deh Morasi Ghundai (Dupree 1963), and Said Qala Tepe (Fairservis 1952; Shaffer 1971, 1972). Although limited, the artefactual assemblage recovered from excavations is sufficient to indicate that Southern Afghanistan is an important area for understanding the emergence of stratified societies or urban centers and for comprehending the cultural processes which affected neighbouring areas. The three sites provide information for understanding the cultural processes linking the areas of Baluchistan and the Indus Valley to former Soviet Central Asia and eastern Iran (Shaffer 1978: 90-91).

Mundigak is situated about 55 Km to the northwest of modern city of Kandahar. The site comprises of a series of mounds (approx. 21 ha), was subjected to fieldwork from 1951 – 58 by J.M. Casal of DAFA (Fig: 5). The Bronze Age/Chalcolithic levels at the site have been divided into five periods. Chronologically these periods represent a time span of approximately 3000 years from the beginning of the fourth to the early part of the second millennium B.C. During this time span, Mundigak developed from a small agricultural village (Periods I-III) to a major urban center (Periods IV-V) and was subsequently abandoned during the Iron Age. Shaffer (1978) puts chronology of Mundigak as: Period I: 4000 – 3500 B.C, Period II: 3500 B.C, Period III: 3500 – 2800 B.C, Period III-IV: 3000 – 2000 B.C, and Period V: 2000 – 1500 B.C).

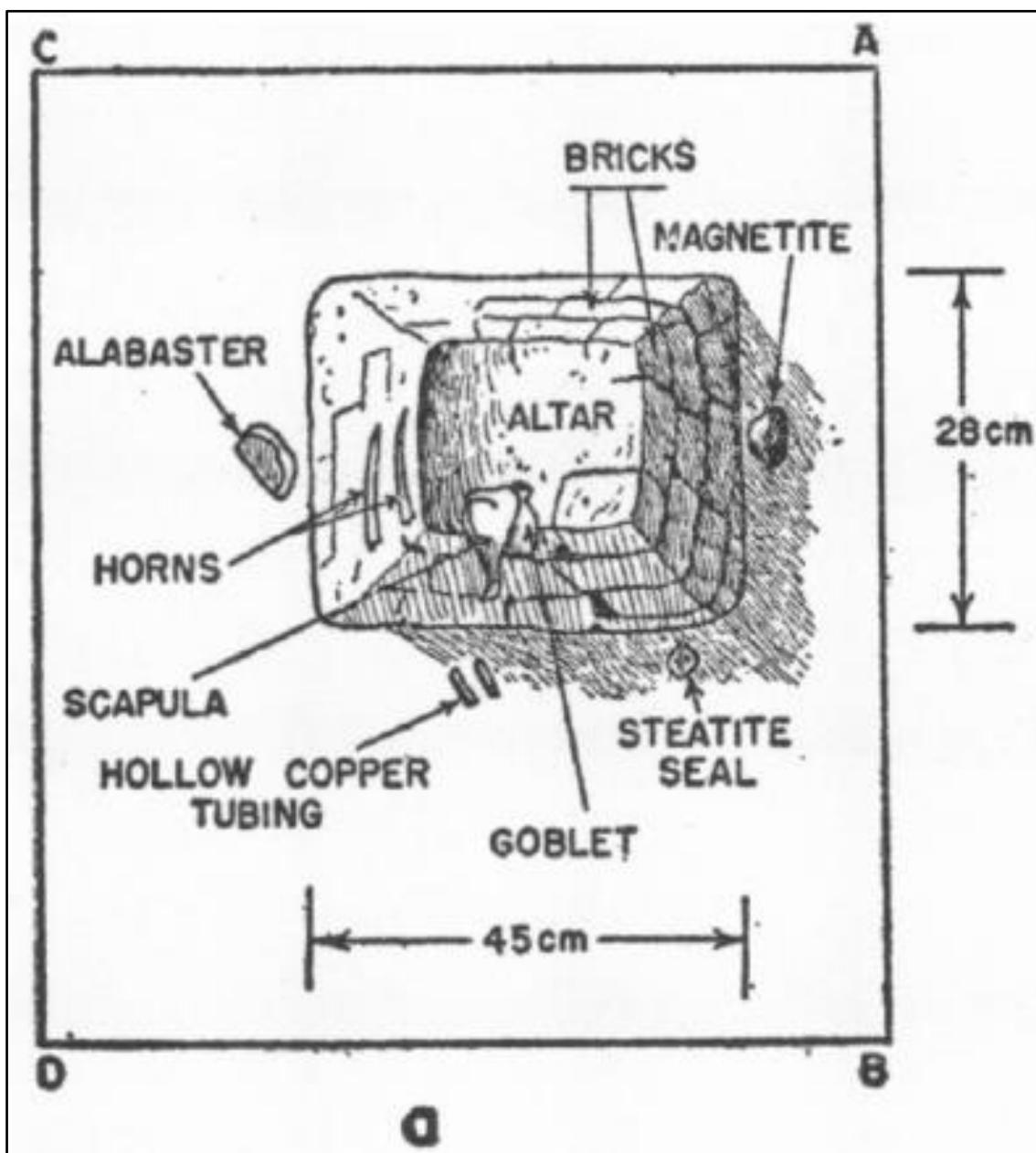


Figure 4: Deh Morasi Ghundai, "Household Shrine" (After Dupree 1963)

**Said Qala Tepe** is located approximately 100Km southeast of Mundigak near Kandahar City. The site is not comparable to Mundigak in terms of its size, as it is a small site (200 m in diameter). The site was first excavated by Fairservis in 1952; however, the major excavations were conducted by Shaffer almost 20 years later in 1971-72. Based on the 14C dates and cultural materials recovered, three periods of occupations respectively Pd. I – III have been identified which are essentially equitable to those of Mundigak Period III – IV (Shaffer 1978).

**Deh Morasi Ghundai** (approx. 1.12 ha) is located only 16Km southwest of Said Qala. It is only about half the size of Said Qala. The excavations here undertaken by Dupree in 1963 resulted in the identification four major occupational periods. Deh Morasi is later than Said Qala and represents a Mundigak IV type occupation (Shaffer 1978). The limited nature of the excavations undertaken here prevented the delineation of any structures. The major occupation at Deh Morasi was period II which is divided into three phases, II a – c. The only architectural feature of significance found in the excavation was recorded in Period IIa. This was a small (45x28cm) mud brick structure, trapezoidal in shape with the following artefacts in direct association: ceramic female figurine, copper tube and seal, goat bone and horn, and pottery (Figure 4). The excavator interprets this structure as a “household shrine” (Dupree 1963; Shaffer 1978).

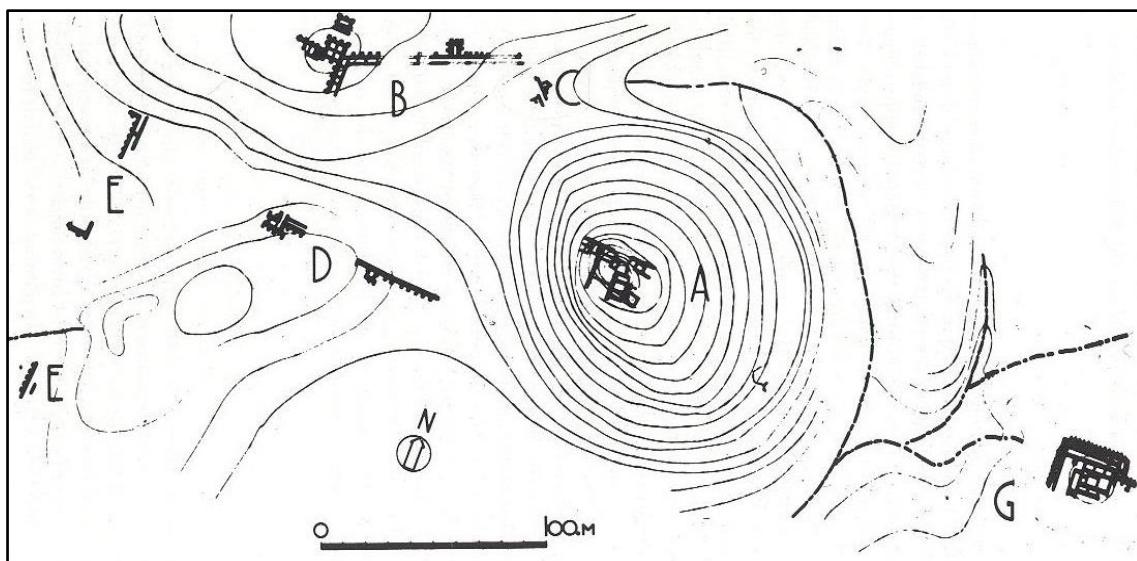


Figure 5: Mundigak: General plan of the site during the occupational Period IV  
(After Casal 1961)

### Bronze Age/Chalcolithic Sites in Northern Afghanistan

Our information about the Bronze Age/Chalcolithic period from the Northern Afghanistan comes from a series of sites such as Chalcolithic/Bronze Age levels at Ghari-i-Mar (Dupree 1972), Tepe Fullol (Tosi and Wardak 1972), Dashli Oasis and Farukabad (Sarianidi 1971), and Shortughai (Francfort 1984). For the understanding of the nature of Chalcolithic/Bronze Age cultures in this area a brief introduction of the sites is worthy to mention.



Figure 6: Fragments of Golden and Silver bowls, Tepe Fullol (Courtesy: National Museum of Afghanistan)

**Ghar-i-Mar (Snake Cave):** The site is located in Northeastern Afghanistan on the terrace of Balkh River, near the town of Aq Kupruk in Balkh province where a series of rock shelters were identified. Excavation here was conducted in four localities. The site was excavated by Dupree and his team between 1962-65 as part of his Palaeolithic research and it was designated as Aq Kupruk I (AK I) (Dupree 1972). During the course of the excavation besides the other occupational phases (Palaeolithic and Neolithic), the excavator identified the Chalcolithic/Bronze level with the presence of copper, but not bronze (Dupree 1967: 25, 1972: 25). However, the chemical and other

scientific analysis of these metal artefacts by Caley (1972) clearly indicates that its composition was of a low-tin bronze. Two 14C dates obtained from these levels gave a date of 5487 and 5291 BC. This appears to be the earliest date for the use of metal artefacts in North Afghanistan. The metal artefacts consist of three fragments of sheet metal, with an embossed motif, two fragments of a rectangular rod, and one more piece (Shaffer 1978; Dupree 1972; Caley 1972).



Figure 7: Artefact Assemblages of Dashli Oasis (After Sarianidi 1971)

**Tepe Fullol** is located in the Baghlan province. A hoard consisting of five gold and twelve silver vessels were discovered in 1966 by some peasants and subsequently confiscated by government officials (Figure 6). Subsequent excavations here revealed the discovery of an inhumation burial of an uncertain date. Unfortunately, it was not possible to connect the hoard with this burial since the latter did not contain any artefacts and thus its chronology is debatable (Olijdam 2000). Further, the assemblage does not appear to be a homogenous one and suggests different manufacturing techniques involved. In addition, their decorative patterns vary, with a few suggesting closer affinities with sites at Turkmenistan and Baluchistan and a few others with sites in Mesopotamia and Elam. Based on these similarities a tentative date of 2600-2400 BC has been proposed by scholars (Tosi and Wardak 1972).

**Dashli Oasis**, ten in number, was excavated by Kruglikova and Sarianidi of Afghan-Soviet Mission between 1969 to 1974 (Srivastava 1996). Out of them Dashli 1 and 3 provided much information. The excavations revealed architectural features such as rectangular and circular buildings, circular and semi-circular towers and fortification wall made of mud brick. In addition, each settlement was divided with multi-room living and housekeeping quarters which was separated by small streets and often grouped around an inner courtyard (Sarianidi 1977). Artefactual finds include bronze weapons, jewelry, and ceramics comparable with the Grey Wares of Turkmenistan and North-Eastern Iran (Figure 7). A date of Late Bronze Age was suggested for these sites. The other finds include lithics, compartmented seals made of stone, ceramic and metals; and stone beads (Shaffer 1978).

**Shortughai** is located in North-Eastern Afghanistan. The discovery of Shortughai in Northern Afghanistan by J.C. Gardin of DAFA and his team in 1975 has been a landmark in the Bronze Age/Chalcolithic researches in Afghanistan. Later on, it was excavated for four consecutive seasons from 1976 - 1979 by H.P. Francfort and M.H. Pottier and the results have been fully published in 1989. It is a very small site (2.5 hectare) with shallow (not more than 2.5 to 3m) cultural deposit and is divided into two main mounds: Mound A (SHA) and Mound B (SHB). From the first published report by the excavator, it was clear that there was Mature Harappan settlement there, located far from the plains of the Indus Valley (Figure 8). The discovery of Shortughai is a profound implication for any understanding of the scope of Harappan activities outside the geographical boundaries of the alleged "Greater Indus Valley", as well as its later connection with Central Asian Cultures (Possehl 1997; Francfort 1981). At first only mound A was partially occupied (Period I). Slowly the settlement expanded, covering the whole of the two mounds (AandB) in Period II and III. In the final Period (IV) only parts of mound B were inhabited (Francfort 1984). The final phase of occupation (period IV) at this site shows evidences of Mollali and Bishkent culture marking the coming of various people in this site(Francfort 2016).

The Bronze Age/Chalcolithic cultural sequence of the site of Shortughai is Phase A – Pds. I and II (2300/2200 – 1800 BC) and Phase B – Pds. III and IV (1800 – 1600 BC).

Period I: The time of the first occupation of the site by its earliest settlers, is characterized by the level Nr6 of mound A. It has been identified with the Early Mature Indus, roughly corresponding to 2500-2400 BC, but we may notice that within this chronological range, the first settlers may have arrived at the end of it, around 2400-2300 BC. This first group, they arrived well equipped with their original cultural material set (architecture, pottery, arts and crafts, plants and animals), and they immediately cultivated lands on the terraces near their buildings (Francfort 2016). The 14C date obtained for this period is the end of the third millennium BC (Possehl 1997; Francfort 1984). In this period Harappan elements identified include Indus seal (Figure 9), carnelian beads, and classical Harappan ceramic shapes such as: jars, beakers, plates, basin, dish-on-stand, rusticated wares and perforated jars. In addition, painted ceramics such as black-on-red with typical Harappan motifs were also recovered (Figure 10). Besides these, the presence of crucibles with traces of copper, indicate metalworking at the site and probably even smelting. Copper artefacts were also recovered. Also the presence various industrial debris such as Lapis Lazuli, bronze slag and broken pottery which were mostly concentrated in this mound, according to the excavator and Dupree (1980) seems that SHA was an area which combined artisans, workshops and residential area, much like modern Afghan Bazaar areas. Houses were made of mud-bricks of Harappan standard size of (1:2:4 ratio) (Possehl 1997; Dupree 1980; Chakrabarti 2014; Francfort 2016).

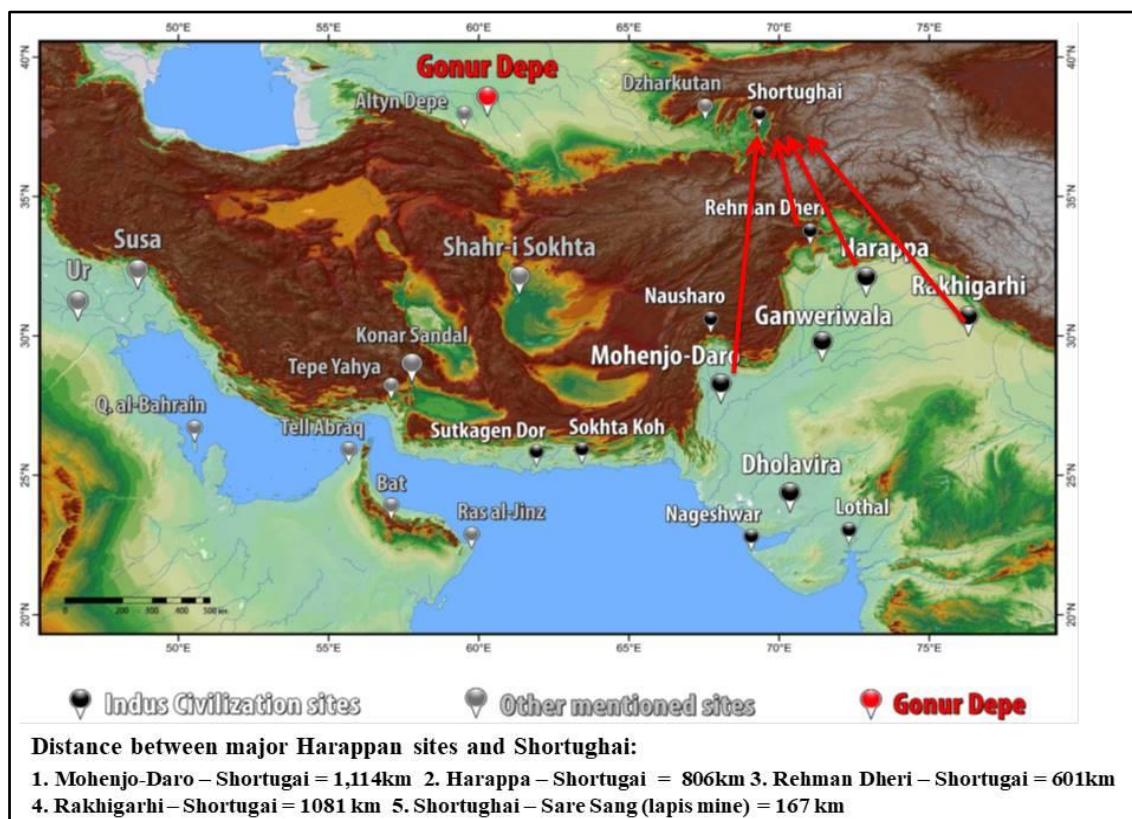


Figure 8: Map of Central and South Asia with Major Sites and the Location of Shortughai (Adapted Frenz 2018)



Figure 9: Indus Seal from mound B (moved in antiquity) Period I, Shortughai  
(After Francfort 2016)

Period II: Similar to period I in terms of artefact assemblage, but a gradual change could be observed towards the end of this period for transition to period III. This period is called *Late Mature Harappan* by Possehl (1997). During this period evidence for the working of Lapis Lazuli stops and does not reappear after Period I, however, metallurgy continued. There seems to be an extension in settlement as in this period both mounds (A and B) were occupied.

Period III: Analysis of material culture of this period has proven difficult due to a lack of a single stratigraphic context as the settlement moved from mound A to mound B during this point. This period was defined by the excavator as an intensification of local elements. According to Dupree (1980) this is not a strange phenomenon as we can see that outsiders shifted their ways of life, at least in the economic sphere, to adapt to the local conditions. Thus the Harappan "colonists" would have had to adjust from a semi-tropical climatic zone to a semi-arid zone (Dupree 1980).

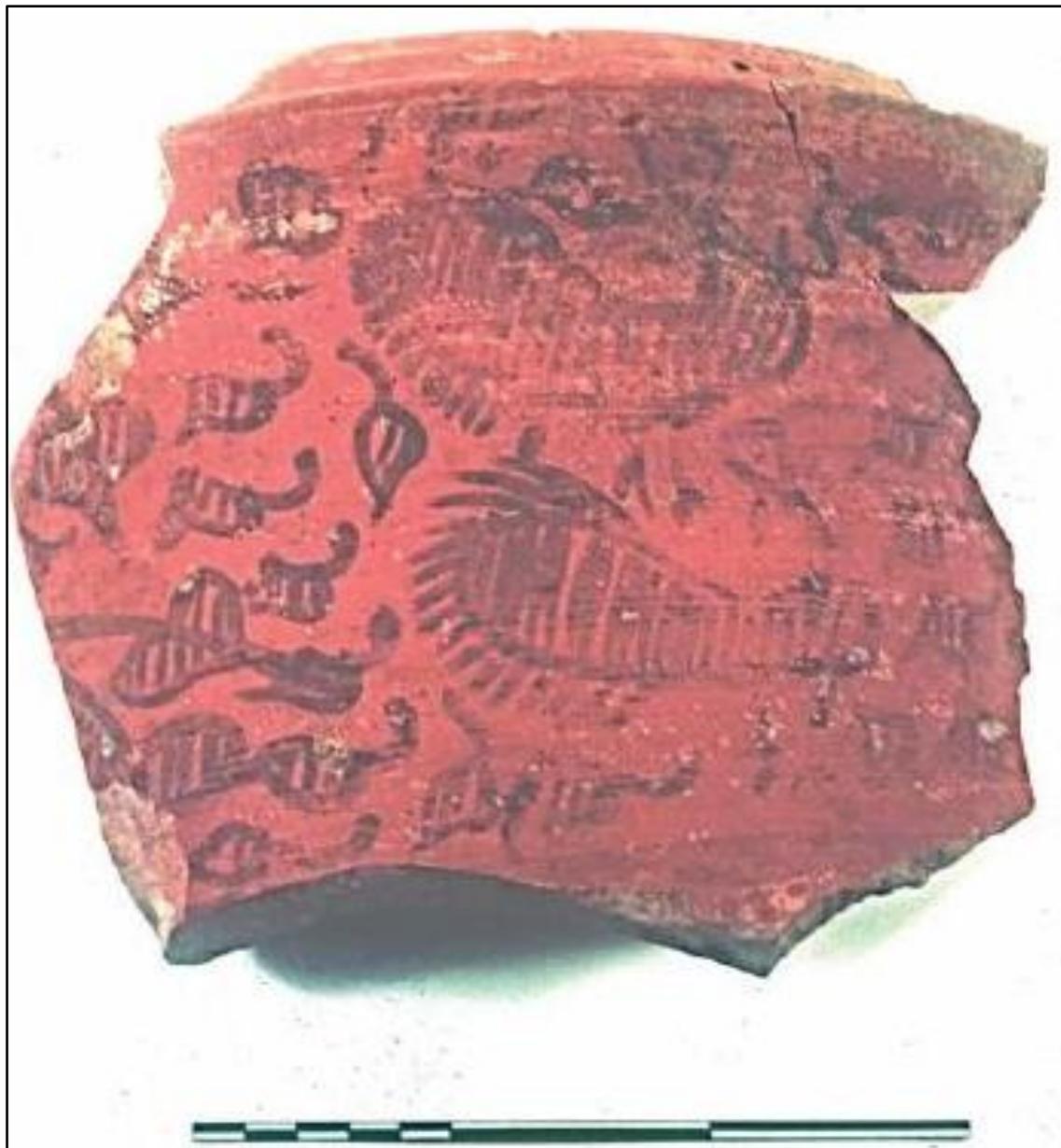


Figure 10: Indus Painted Pottery from Mound A. Period I (After Francfort 2016)

Period IV: This period is composite, heterogeneous and does not reflect a single culture but a real occupational horizon, marking the coming of various people in this site. This final period is recognized as Mollali and Bishkent culture. A burial of type belonging to this culture was dug into the ruins of the already abandoned Indus mound A. This final occupation could be dated to 1700 – 1500 B.C. (Francfort 1984, 2016).

According to Dupree (1980), the culture at Shortughai seems to have evolved without drastic interruptions, but the apparent abrupt abandonment of the site remains a mystery. Also, the absence of a palace, temple, or citadel posed problem, and without such finds any statements about the social, religious and political institution would be premature (Dupree 1980).

## Discussion and Conclusion

A review of the studies undertaken on the Bronze Age/Chalcolithic period in Afghanistan, often characterised as the Late Prehistoric period (Shaffer 1978), reveals that very little is known of the cultural antiquity of the region for the period between 4th Millennium BC and 2nd Millennium BC. These shortcomings may be attributed to the preferential neglect of early antiquarians in investigating the cultural antiquity of this time period. In addition, the recent geo-political tensions in the region, has hindered archaeological researches in the region since the 1980's.

A review of the archaeological investigations on most sites in the region reveals that the methodologies adopted by the archaeologists were inadequate towards generating a comprehensive understanding of the region's past and were mostly restricted to trial diggings (Shaffer 1978; Srivastava 1996). There appears to be a lack of scientific and systematic analysis of the archaeological evidence at most sites from the point of view of reconstruction of various aspects of socio-economic life such as subsistence strategies, settlement pattern, trade networks and technological developments. It is only at a few sites such as Dashli Oasis (Sarianidi 1971, 1977) and Shortughai (Francfort 1981, 2016) in the north and Mundigak (Casal 1961) in the south that studies were undertaken to reconstruct the subsistence strategies. Studies here revealed that the past populations relied on a combination of sedentary cultivation practices along with nomadic pastoralism. This fact could also be illustrated in the present day practices in this region. In addition, it must also be remembered that the subsistence system in the region was not limited to the aforesaid facts, but it had other components such as handicraft, mining activities, trade and exchange of goods (Shaffer 1978; Bowlby 1978; Srivastava 1996). For instance, the site of Shortughai is being identified by a few scholars as a factory site, specialised in the exploitation and export of lapis lazuli to other neighbouring civilizations (Francfort 1983, 1984, 2016; Possehl 1997).

It has also been observed that there existed a multitude of cultures in the region which shared close affinities with different parts of Central and South Asia. For instance, the North Dashli sites along with the sites of Farukabad and Tikar share close affinities with those of northern Amu Darya (Oxus River) sites in Turkmenistan and Uzbekistan, which has been referred to as Bactria- Margiana Archaeological Complex (BMAC) (Sarianidi 1971, 1977). Similarly the site of Shortughai shares affinities with sites belonging to the Indus Valley Civilization (Francfort 1981, 1984, 2016; Srivastava 1996). Further, it must be noted that while there have been a few studies in Northern and Southern Afghanistan with regards to the Bronze Age/Chalcolithic period, there have not been any studies conducted to investigate the cultural antiquity of the central regions of Afghanistan (Srivastava 1996).

Further, in the context of Afghanistan, unfortunately, there is no single site like Mehrgarh which has revealed continuous cultural sequence from the early food producing societies till the emergence of stratified societies (Srivastava 1996). In addition, although the earliest evidence for the use of metal as seen from the site of

Ghar-i Mar can be dated to 6<sup>th</sup> millennium BC, there is a gap of nearly two millennia before we see the emergence of Chalcolithic/Bronze Age cultures in the region (Shaffer 1978). These shortcomings have limited our understanding of the cultural significance of this period along with issues concerning the origin and development of civilization in Afghanistan. However, a few archaeologists argue that Afghanistan appears to have passed through similar stages and processes of civilization as in the case of Indus, Mesopotamia and Shahr-e-Sokhta in Iran and suggest concepts such as Hilmand Civilization (Lamberg-Karlovsky and Tosi 1973: 26), BMAC (Sarianidi 1971, 1977) or the Oxus Civilization (Francfort 1981). In this context, there is a need to re-examine the Chalcolithic/Bronze Age cultures in Afghanistan and their relationship with contemporary civilizations in the neighbouring regions.

To conclude, it must be noted that compared to the magnitude of work being undertaken in other parts of Central and South Asia, our knowledge of the Bronze Age/Chalcolithic period is very limited and fragmented, and is characterised by a lack of comparative scientific exposure for the available data (Srivastava 1996). Further, it has been observed that the previous researches on the Late Prehistoric period in Afghanistan that were undertaken in Afghanistan prior to 1980's were greatly influenced by nationalistic tendencies of external agencies, which often resulted in non-sharing of information between archaeologists of different nationalities. These tendencies (although no longer existent), greatly inhibited the reconstruction of the cultural significance of this time period in the region. In the light of the aforesaid factors, it may not be wrong to cite Shaffer (1978), who states that there are two categories of problems with regard to the Chalcolithic/Bronze Age cultures in Afghanistan – firstly, methodological and chronological; and secondly problems connected with cultural processes.

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