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# EXCAVATIONS AT THE BRONZE AGE PASTORAL SITE OF HANZAF, S.E. IRAN: STRATEGY OF PASTORALISM IN THE HALIL RUD BASIN BASED ON THE ARCHAEOLOGICAL AND ETHNO-ARCHAEOLOGICAL EVIDENCE

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## ABSTRACT

Southeastern Iran consists of several different geographical zones. Archaeologically, Halil Rud Basin is one of the most important parts of the region. This little known basin includes two different geological parts, highlands and lowlands. This dichotomy was to cause interactions between the two areas. The evidence for interactions between the highland mobile pastoralists and lowland urban centers in the urban phase of the 3<sup>rd</sup> Millennium BCE in Southeastern Iran has been elusive. However, it is supposed that scattered highland settlements have played a very subservient role in developing the cultural landscape of the region during this period. In May-June 2012, an archaeological project was carried out by one of the authors (NE) at the area of Hanzaf Dam in the highlands of Halil Rud Basin. This paper deals with the results of the project that includes excavations at two Bronze Age pastoral sites, and destroyed cemetery dating back to the Bronze Age. Furthermore, it attempts to present the strategy of pastoralism in the Halil Rud basin based on the ethno-archaeological studies. Finally, we suggest that the pastoral societies had a main role in the prehistoric economic landscape of the Halil River Valley by exploiting the natural resources (instance; copper).

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**KEYWORDS:** Halil Rud Valley, Bronze Age, Natural Resources, Pastoralism, Ethnoarchaeology, Halil Rud Basin, Pastoralism, Bronze Age, Hanzaf Site

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## 1. INTRODUCTION

Southeastern Iran is consisted of several cultural areas of which Halil Rud basin in Kerman province is one of the most important parts. Halil Rud basin with an extent of 8450 square kilometers is 400 km long. Halil River originates in Zagros Mountains in north-west of Jiroft and leads to Jazmurian (Fouache et al. 2005). Two major archaeological excavation projects have been conducted in Halil basin plains so far; Tepe Yahya project under the supervision of Lamberg-Karlovsky (Lamberg-Karlovsky, 1970) and Halil Rud Archaeological Project (HARP) under the supervision of Majidzadeh (Madjidzadeh, 2008). But unlike the plains, the prehistoric mountain settlements in Halil Rud basin have not yet been studied. The precedence of nomadic life in Halil Rud Basin goes back, at least, to the 4<sup>th</sup> millennium BC (Anjomroz and Eskandari 2012). But we don't have much information about the cultural interactions between nomadic and sedentary societies while provenance studies in other sites of S.E. Iran (e.g. Shahr-i-Sokhta – located at southeast of Iran in Sistan ), and/or comparison with other western Mediterranean Near East sites to be pursued is a worth following up step (Zeinab Javanshah 2018; Badra 2015). It's believed that scattered highland settlements have played a minor role in cultural landscape of the region in the past. Especially in Bronze Age studies, because of the existence of urban centers, all the attention has been given to the plains and the interactions between highland mobile pastoralist and lowland urban centers in Halil Rud basin have been neglected. The excavation of Hanzaf is the first fieldwork related to the Bronze Age nomadic societies of Halil Rud basin which gives us a better understanding on highland nomadic communities and their interactions with lowland urban societies of the region and their influence on the Bronze Age economy and trade of Halil Rud basin can also be studied. Some researchers consider nomads as a part of agricultural communities that live in their marginal territory and need them for their products, some others like Cribb (Cribb,1991:14) believe that nomads differ from sedentary agricultural societies. In this article, we present the results of the 2 excavated settlements and a graveyard belonging to nomads of Bronze Age in Halil Rud basin and the eth-

no archaeological studies on current nomads of the region. Based on done works, a proposal for the strategy of pastoralism in Halil Rud basin during the Bronze Age is presented. Before getting to the excavation of Hanzaf, nomadic concepts used in this paper should be defined. According to Abdi's definitions (Abdi, 2003: 398):

*Pastoralism* is a mode of production concerned with the exploitation of domestic animals, in the case of the Near East caprines (sheep and goat). Pastoralism occurs in a continuum from fully sedentary (village-based herding) to fully mobile (nomadic) pastoralism.

*Mobile pastoralism* is a form of pastoralism that involves movement of the herd beyond the agricultural zone, usually one to a few day's walk from the village.

*Transhumant pastoralism* is a specialized form of mobile pastoralism that is still based on settlements but involves seasonal movement of the herd between pastures with some use of campsites.

*Nomadic pastoralism* is the extreme form of mobile pastoralism. It is a mode of subsistence (i.e., a way of living) primarily relying on pastoralism involving high mobility and changing dwellings throughout the year, living in a succession of campsites along vertical or horizontal routes.

## 2. THE EXCAVATION OF HANZAF

In spring 2012, a prehistoric cemetery was discovered during the dam construction activities in Baft city (Fig.1). So the Iranian Center of Cultural Heritage and Tourism Organization (ICHTO) of Kerman Province conducted a rescue excavation under the direction of the first author (Eskandari, 2012). At first it seemed that the cemetery was the only archaeological site but after the systematic archaeological surveys done in dam area, 2 other settlement sites were discovered. From the construction activities, 11 complete objects including 9 intact pottery vessels, a stone and a bronze bowl were found which proved the existence of a Bronze Age cemetery. The main objective of Hanzaf project was to excavate the cemetery and to identify the possible remaining graves however the 2 other sites, which were most probably related to this cemetery, were also explored. One of the settlement sites was located next to the cemetery and the other was situated 800 meters north of the graveyard.

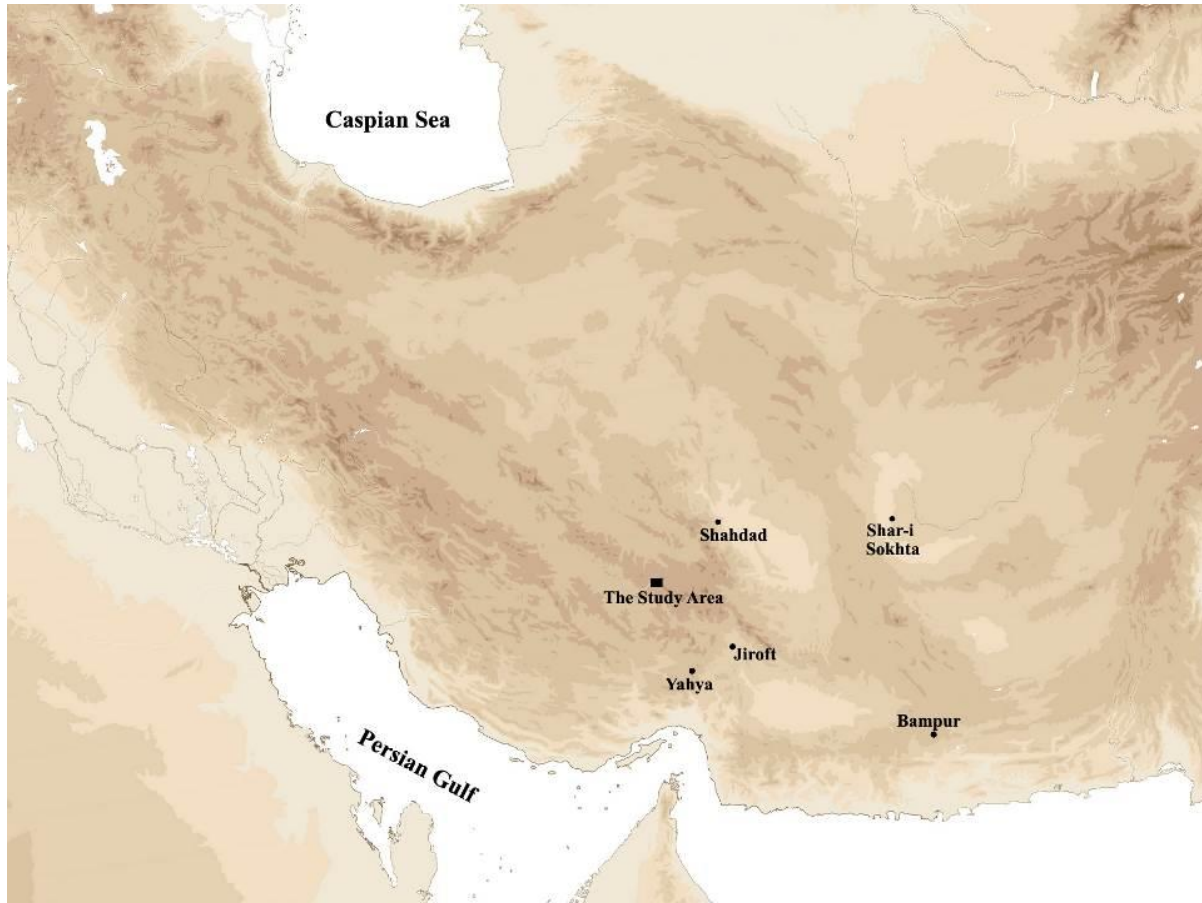


Figure 1. Map showing the location of the study area and other excavated Bronze Age sites in SE Iran

### 2.1 The topography of the region and the objectives of the excavation

Hanzaf area is located in northwest of Baft city in Kerman province. It is situated in a mountainous region with a height of over 2500 meters above sea level, which even today is used as nomad's countryside. During dam constructions, a prehistoric cemetery was found one Kilometers behind Hanzaf dam. Hanzaf cemetery is located on the southwestern part of a natural hill. Soil of this hill and the adjacent hills was depot to the depth of 3 meters and was used for dam constructions. Constructions were stopped by the discovery of ancient artifacts. These finds included intact ceramic vessels, stone and bronze objects belonging to the Bronze Age. So the main objective of the rescue excavation was to uncover the intact parts of Hanzaf cemetery; however after starting the archaeological surveys behind Hanzaf dam and identifying the related settlements to the mentioned cemetery, the new approaches and aims were created. The main purpose

of the excavations at Hanzaf was to obtain the maximum information of the area and to record the archaeological data accurately because after the excavations the area would go under the water. Those in charge of the dam construction project used the soil behind the dam to build up the dam's wall. As a result, most of the soil behind the dam had been compacted, and parts of it had been loaded and moved to the top of the dam. In fact, while loading the soil, they became aware of the artifacts from the cemetery. After exploring the cemetery, an area located 100 m west of the cemetery and in the east of the hillside was excavated. Hanzaf River passes 100 m west of the settlement area. Another settlement area identified and excavated during the archaeological surveys at Hanzaf dam is located 800 m north of these 2 sites (the cemetery and the settlement area in the west of the cemetery). The Hanzaf River passes 150 m west of this campsite and even today is a suitable place for formation of nomadic campsites (Fig.2).



Figure 2. The location of the excavated areas behind the Dam and the land disturbance by construction activities

### 2.2 The excavations of the cemetery area (trenches I-III)

The main purpose of the excavations was to find the possible remained intact graves, so the excavations started from the area where the objects and graves were found during dam constructions. The destroyed graves were located on steep hills, so according to the slop and the fact that the graves were not situated in same level, the existence of intact graves seemed quite possible. Hence 2 trenches, located next to each other, each with dimensions of 10×10 m were created in southwestern part of the natural hill. By excavating it became clear that no other graves were left intact in this area. Since nothing was discovered of trenches I and II, another trench (III) was opened in the only intact part left of the hill which was located in northeast of the cemetery. The archaeological team decided to clean depot soil to provide a suitable place for tr.III with dimensions of 11×6 m but no graves were traced in this trench either having had all soil around depot and not having found any graves suggest that the cemetery had been completely destroyed.

### 2.3 Excavations at the Western Campsite (Trenches IV, V)

Since the whole Bronze Age cemetery was destroyed by dam construction activities, the excavation team decided to explore the area which was located 100 m west of the cemetery and showed some evidence of settlement on its surface. It's located on east-

ern slopes of the natural hill to the west of the cemetery. Most parts of the hill were disturbed and all surrounding soil was being depot and the only surviving part was the core of this hill. In the northeastern part of the aforementioned hill, half a meter-deep pits were dug in places, and square-shaped spaces were created. The dam project crew's purpose in creating these spaces was to measure the water penetration, by filling these spaces with water, in order to make a better use of the soil for the construction of the dam. In surrounding soil of these dug out areas so many potsherds were found. According to the similarity between these sherds and ceramics of the cemetery, it was logical to think that this settlement area was related to the adjacent cemetery. Therefore 2 trenches (IV, V) were opened on this natural hill. Tr. IV was opened on the eastern slope of the hill with dimensions of 7×7 m. At a depth of half a meter we uncovered a settlement floor with dimensions of 3×2 m which contained Bronze Age potsherds. Of this settlement floor, the number of 36 sherds and one grindstone were found *in situ*. Along the settlement floor, an irregular stone wall was identified and also to the west of Tr. IV an assemblage of rubbles which shaped a regular circle was discovered. Due to these evidence and the fact that this stone assemblage was situated near the settlement floor of Tr. IV, motivated us to open another trench (Tr. V) with dimensions of 10×10 m in northwestern side of Tr. IV. By exploring Tr. V a regular oval stone structure was found and the further excavations led us to uncover the massive stone structure (Fig 3). About

half a meter of the stone wall's height was left. Its diameter with south-west direction was 6.5 m (the thickness of stone walls (about 1.5m) is considered too). Based on the shape and walls thickness of the stone architecture and the lack of appropriate conditions for setting up a tent, this stone structure couldn't have a residential function. Similar parallels of these architectural remains in current nomadic societies of central Zagros and Kerman province shows that these archi-

tectural spaces were used as grain storage to protect it from moisture and also in some cases were used as a place to keep newborn livestock. Exploring the trenches V and VI led us to discovery of architectural remains belonging to nomads which indicating that western hill of the cemetery was occupied by pastoral people. Unfortunately most parts of Hanzaf had been previously destroyed and the only surviving parts belonged to these 2 mentioned trenches.

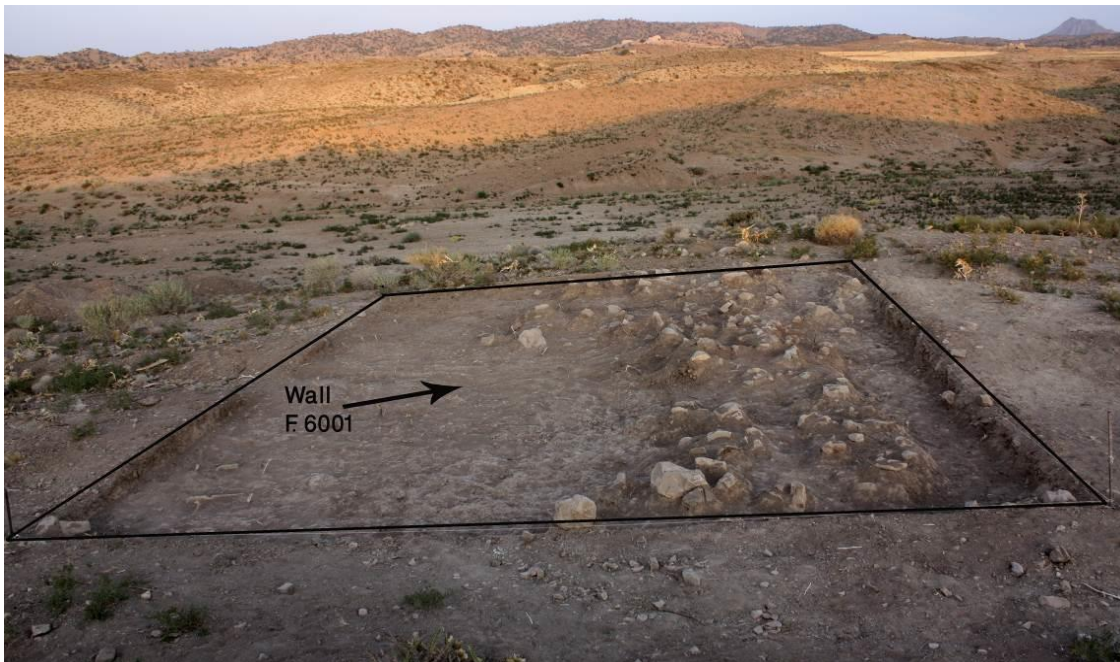


Figure 3. The huge architectural stone structure unearthed in Trench V related to the Bronze Age

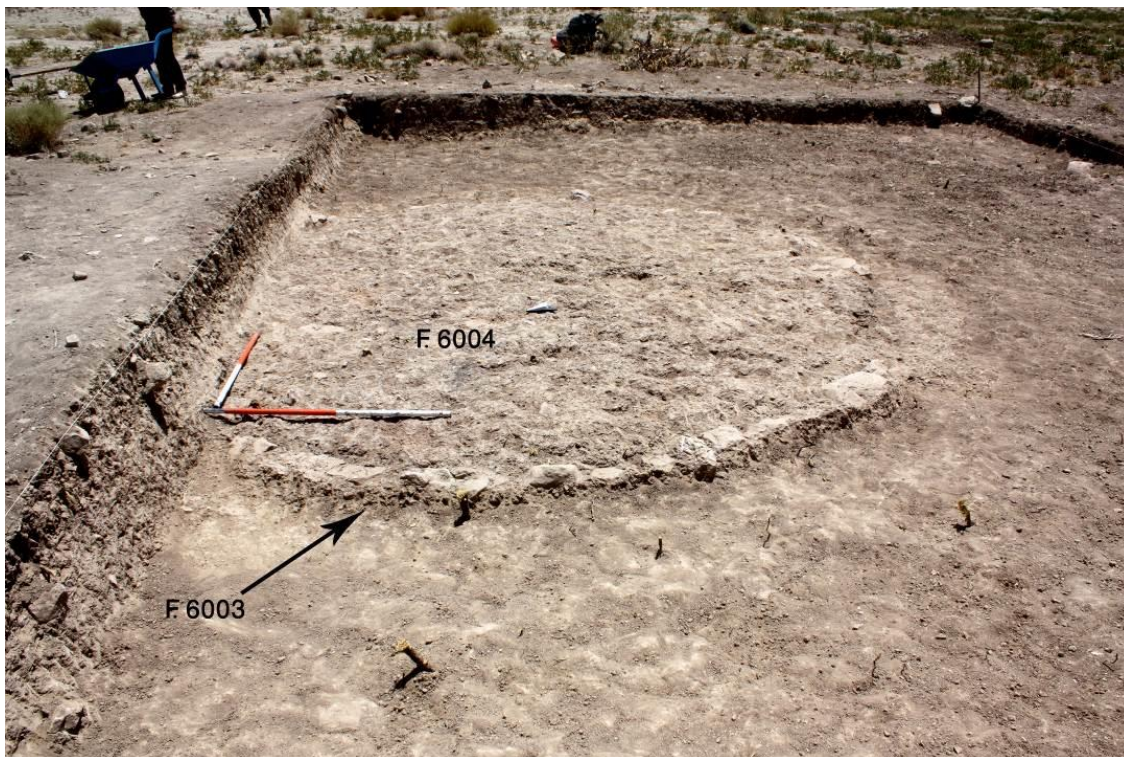
#### 2.4 Excavations at the Northern Campsite (Trench VI)

Archaeological survey behind Hanzaf Dam led us to the discovery of a Bronze Age Campsite in the 800m to the north of the cemetery. In this site the sherds are scattered 200m in length along the eastern bank of Hanzaf River. Unfortunately, most part of the site was ploughed by the villagers in purpose of cultivation. The surface sherds suggested the site is attributed to both Bronze Age and Sasanian era. The Hanzaf Team opened a trench in this area to bring to light the relation of this site with the Hanzaf cemetery. The north of the site where the density of sherds was high and also less disturbed, was chosen. Therefore, Trench VI in size of 10 by 8 meters opened and excavated in 1 meter depth. In this trench a huge stone architecture was revealed just by removing the surface soil. This feature is 10m in length and is a little disturbed (Fig.4). A floor associated to this feature was unearthed that indicates

this stone part is a wall. Based on the ceramic comparative chronology this layer containing a stone wall and a floor is assigned to Sasanian Period. This historical layer were recorded and removed. Further excavations exposed a circular stone architecture 4m in diameter just below the Sasanian architecture in the depth of 75cm (Figs 5, 6). This circular feature is composed of one row pebble; a 20cm thick floor was recognized inside the feature that shows its function as a place to set up the tents. The typical ceramics of the Bronze Age found on the floor of this circular residential architecture. therefore, the lower layer of trench VI can relate to the Bronze Age. Apart from Ceramics, Bronze Objects and stone tools were also found in this trench. Overall, it is evident that the northern Campsite of Hanzaf occupied by pastoralists in the Bronze Age and reoccupied during the Sasanian Era that shows the continuity of pastoral lifestyle from Prehistoric to Historical periods. it is highly probable this Campsite is related to the Bronze Age cemetery of Hanzaf.



*Figure 4: The Sasanian stone wall uncovered in Trench VI*



*Figure 5. Bronze Age stone circular stone architecture with the function of setting up tent*

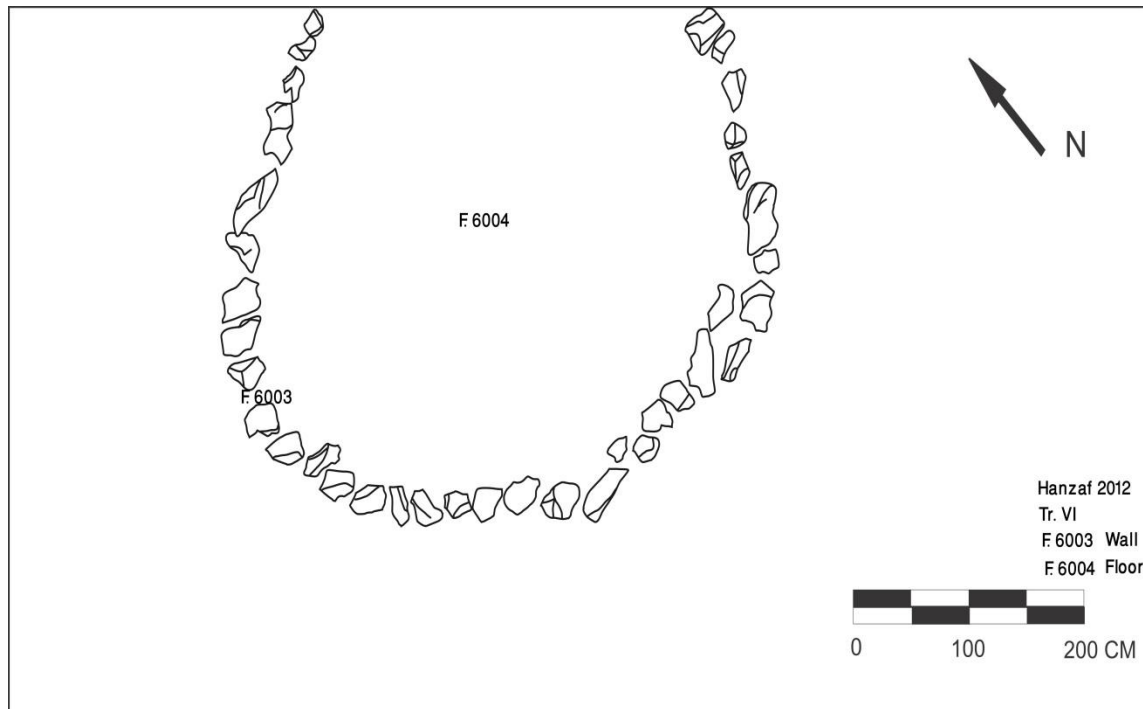


Figure 6. The plan of The Bronze Age stone circular stone architecture unearthed in Trench VI

## 2.5 Pottery

The collected ceramics from Hanzaf include the complete vessels from the damaged cemetery of Hanzaf, the potsherds found in the western Campsite (Trenches IV, V) as well as from the northern Campsite (Trench VI); will be presented in detail in the following. During the construction activities and bulldozing the cemetery, 9 complete ceramic vessels was uncovered. They can be classified into 4 groups based on the color; Buff, reddish brick, gray and Orange wares. The ceramics vary in form including footed goblet, Jar, bowl, spouted flagon, glass and cup (Fig. 7). Seven of them have no decorations. They are simple and two vessels are painted with geometric motifs.

In total, 133 pottery sherds were found in trench IV which 67 sherds came from Locus 4001, 29 sherds from Locus 4002 and 37 sherds from Feature 4002 which was a occupational floor. Overall, the pottery ceramic of this trench can be classified into 3 groups; buff, orange and grey wares. The common pottery forms are bowl and flagon which are closely comparable with

those of trench V and VI. It is worthy to mention that all of pottery sherds came from this trench are unpainted. From 155 pottery sherds that were found in Trench V, 74 sherds came from Locus 5001, 15 sherds from Locus 5002 and 66 sherd belong to Locus 5003. The pottery ceramics can be classified into two groups, buff and orange. The ceramic assemblage contains plain and painted wares, the painted wares consists 18 percents of the assemblage that most of them are painted in black color on buff wares with geometric motifs. In Trench VI, a total of 91 potsherds were found of which 55 sherds came from Locus 6001 including both Bronze Age and Sasanian potteries. 27 out of 91 potsherds, were found from the Feature 6002 which is an occupational floor related to the Sasanian era. 9 sherds were documented on the surface of an occupational floor, labeled Feature 6004, belonging to the Bronze Age. The found potteries of this trench date back to two different periods, Bronze Age and Sasanian era.

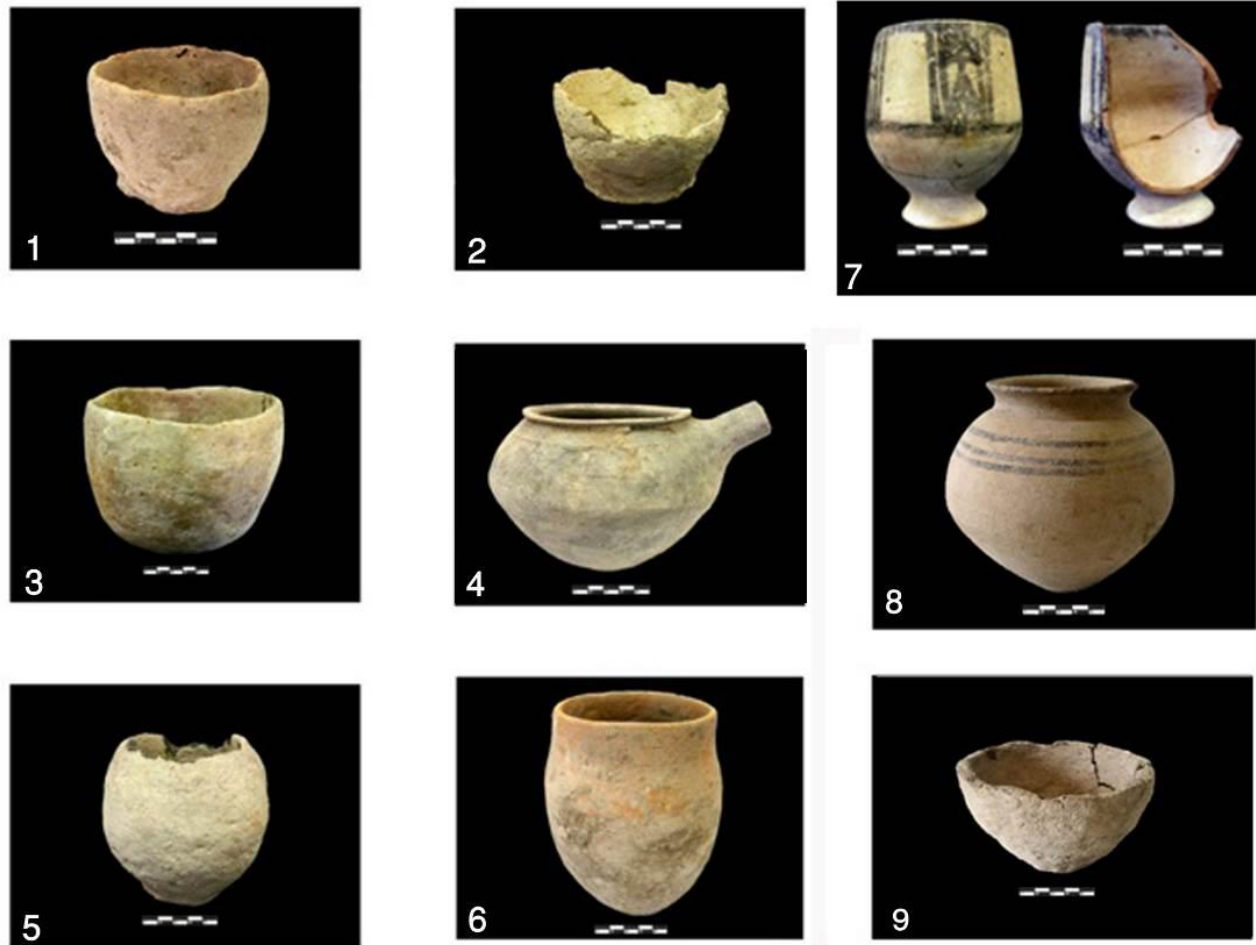


Figure 7. The Bronze Age ceramic vessels discovered from Hanzaf cemetery during the construction activities.

### 2.6 Relative chronology of Hanzaf sites based on pottery typology

The potteries uncovered from Hanzaf excavations are related to two different time periods of Bronze Age and Sasanian era. The main occupation of Hanzaf sites complex dates back to the Bronze Age, but the Sasanian characteristic potteries which were found in upper layers of North campsite (Tr.VI) showed that the site was reoccupied in Sasanian period (Fig 8). Characteristic Sasanian Sherds of Hanzaf have close parallels

in Haji Abad, Qale Yazdgerd, Qasr Abonasr and Khuzestan sites. In following, some of these similarities will be addressed, instance; in fig 9: sherd No.1 is comparable with Qasr Abonasr (Whitcomb, 1985, fig 52:i), Khuzestan region (Wenke, 1975, fig 7:130), Sherd No. 2 can be compared with Qale Yazdgerd (Keall and Keall, 1981, fig 16:13) and Haji Abad (Azarnoush, 1994, fig 190:b), Sherd No. 4 to be compared with Haji Abad (Azarnoush, 1994, fig 164) and Sherd No. 8 is comparable with Haji Abad (Azarnoush, 1994, fig 185:m).





Figure 8. A Selection of the potsherds attributed to Sasanian period came from Tr. VI

The pottery ceramic of Hanzaf sites related to the Bronze Age were found in Tr. IV - VI (Fig 9) as well as the cemetery. They can be classified into 7 types; including Jars with inverted rims and flat base, bowl, goblet, spouted flagon, glass and cup. They are comparable with Bronze Age sites of Southeastern Iran, instance; Sherd No.1, which is decorated with hatched motifs, is able to be compared to Bampur II (De Cardi, 1970, fig 21, No 123). Sherd No.3 is comparable with Bampur VI (De Cardi, 1970, fig 40, No 404). Sherd No.5 has close parallel motifs with Yahya IVB (Potts 2001, fig.1.7) and Bampur VI (De Cardi, 1970, fig 21, No.120). Sherd No. 8 is similar to Konar Sandal South (Madjidzadeh, 2008, fig 23), Yahya IVB5 (Potts, 2001, fig. 4.7, I), Bampur (De Cardi, 1970, fig. 20, No.81) and Shahdad (Hakemi, 1997, G041, No.369). In Fig 7 which is presenting the complete pottery vessels of Hanzaf Cemetery; sherd No. 4 which is a spouted flagon has similar parallels in Yahya IVB (Potts, 2001, Fig.1.36.E),

Bampur II (De Cardi, 1970, Fig 21, No. 125) and Shahdad (Hakemi, 1997, G113, No.1029). The painted footed goblet of Hanzaf cemetery (No. 7) can be compared to Konar Sandal South (Madjidzadeh, 2008, fig. 22) and Tepe Yahya (Potts, 2001, Fig. 3.14, I). Sherd No. 8 has similar parallels in Yahya IV (Potts, 2001, Fig 1.27, E) and also the Cemetery A of Shahdad. Although Hanzaf Sites belong to pastoral societies and as a result most potteries are not characteristic, but based on comparative chronology and similarities between the potsherds of Hanzaf and the key excavated sites of Southeastern Iran such as Konar Sandal, Tepe Yahya, Tepe Bampur and Shahdad, it seems that the western and northern campsites and the cemetery belong to same period and dates to the 3<sup>rd</sup> Millennium BC. It must be mentioned that Hanzaf region was abandoned about two thousand years before it became reoccupied in Sasanian period.



Figure 9. A Selection of the Bronze Age potsherds from Tr. IV-VI

### 2.7 Bronze and Stone Objects

In addition to pottery which is the most abundant finding of the excavated site of Hanzaf dam, bronze and stone objects have also been uncovered (Fig 10). In total, only 2 bronze objects were found from the site of Hanzaf dam (Fig 10: 1, 2). The first one is a bowl found during the construction activities. This bronze bowl is 8 cm in height and it is used as a funerary good in Hanzaf cemetery. The other bronze object is an bowl with the length of 13 cm which is found from the floor (feature 6004) in trench IV located in northern campsite belonging to the Bronze Age. Further parallels for this bowl have also been discovered from the excavated bronze key sites of southeastern Iran. A total of 12 stone objects have been found from 2 campsites of Hanzaf that includes a half -meter stone

mortar and 11 grindstones, among them 8 grindstones and the stone mortar (Fig 10: 9) have been found of the upper layers of trench VI and thus they belong to Sasanian era. Only 3 grindstones belonging to Bronze period were uncovered from trenches IV-VI. The unique stone tray shaped object (Fig 10: 3) has been yielded from Hanzaf during the construction activity in Hanzaf cemetery thus we believe it was used as a funerary gift. The interesting point in finds of the nomadic settlement sites of Hanzaf is the lack of lithic and animal bone remains in the 3 excavated trenches. The absence of cultural material in Hanzaf nomadic areas is somehow indicative of their nomadic life style in a way that only a small group of society migrated with livestock to highlands; it can be a good clue for understanding the strategy of pastoralism in this region.



Figure 10. Stone and Bronze objects found in the Hanzaf pastoral sites

### 3. ETHNO-ARCHAEOLOGICAL STUDIES

In the present study, the modern nomads of the north of Baft County have been studied historically and archeologically, to achieve a better understanding with prehistoric pastoral societies within the heights of Halil Rud Basin, in combination with the data obtained from excavations of Hanzaf sites. Geographically, Baft mountainous region is located on the Halil Rud headwaters in average of 2300m heights above sea level and the altitude within northern areas of Baft City, where the excavated Hanzaf sites located, is more than 2500m. Closeness of the highlands of Halil Rud Basin to its lowland fertile plains has caused establishment of pastoral communities with the immigrating patterns based on vertical migration. It seems logical if one says this pattern of migration was used from prehistoric time up to now in this region, because the nomadic people adapt their migration patterns based on the environment. Hence, study on the modern nomadic communities situated at the north of Baft and their trace in the historical context will considerably help us for presenting an efficient analogy. The trace of historical studies on nomadic communities of Halil Rud Basin is observed in the works of Vaziri the historian of Qajar era. According to Vaziri, The precedence of nomadic life in Baft district (Eghta in historical texts) dated back to the early Islamic period (1997: 317). Since the Bronze Age environment of Baft region

has remained unchanged in comparison with its present, study of the current nomads of the region is useful in finding the material and cultural similarity between the past and present societies. Therefore, the Hanzaf dam project team decided to carry out an ethnoarchaeological study on the present nomads of the region. In time of doing the study, some of nomad tribes were in the region, their summer's pasturelands. In this case, methodologically, the authors visited the nomads and some questions asked to them regarding to their way of life in Summerland, their location in winter and the pathway of their migrations between summer and winter lands. Furthermore, some families in Qasemi and Siahjel tribes were studied in detail; in this purpose some valuable information was obtained that includes the pathways and duration of their migration, the location of their winter and summer lands, their relation with the urban society in winter land and nomads in summer land and the function of their architectures. The studies showed two different exist in this mountainous region based on the destination of winter land. Ethnographic studies indicated that the tribes of northern Baft district such as Sialjel, Mouapour, Abazari, Absalan, Qasemi, Rezapour, Zamani, Safipour, Jahaneshahi, Takallo, Naseri migrate southward and choose Orzohie plain as their winter lands. However, there are a few tribes that go to adjacent plains of Orzuiyeh like Vakilabad and Hajiabad. It is

worth-mentioning that historical written texts show this pattern of immigration for the nomadic tribes of this region. Overall, both ethnographic studies and historical written texts showing a fixed pathway of vertical migration between highlands and lowlands; Baft district as summer pasturelands and of Orzuiyeh plain and its adjacent plains as winter lands. The historical written texts indicates that the mentioned pattern of migration in Halil Rud basin has remained unchanged at least for several centuries and has continued up to now. Hence, we can say, highly probable, the migratory patterns of present nomads of this region is same as Bronze Age patterns. By hypothesizing that the lowland plains of Halil Rud basin such as Orzuiyeh plain in Soughan valley (where the Tepe Yahya is located: see Lamberg-Karlovsky 1970, Lamberg-Karlovsky and Beale 1986) were the winter lands of Bronze Age nomadic tribes of the region some questions immediately come to mind. They include: How were the cultural interactions between the Bronze Age pastoral and urban societies in Halil Rud Basin? What was the role of pastoral societies in the Bronze Age economic cycle of the region, in particular, in relation

to urban centers? How is the impact of pastoral tribes in emerging of Bronze Age urbanization in Halil Rud basin? However, these mentioned still remain unanswered due to the scanty of information about prehistoric pastoral societies of this region (keep in mind that present project is the pioneering archaeological fieldwork on pastoralism in SE Iran). In addition to the ethnographic studies done by authors, the HARP team (Halil Rud Archaeological Project) directed by Madjidzadeh (see; Madjidzadeh 2008) carried out an ethnographic study on the Mohamadi nomads who stay near Konar Sandal site, the Bronze Age urban center in Jiroft plain. They rely on sheep and goat husbandry, during more or less 8 months of the year they live in the Jiroft plain but during the four warmest and driest months, from late spring until the end of summer, they are obliged to move to the highlands of the Jebel Barez (ca. 50 km east of Konar Sandal) or to the Sourdar/Dalfard region (ca.60–80 km to the North) in order to find adequate pasture for their herds (Mashkour *et al.* 2013). Therefore, this tribe is an example of modern pastoral transhumance in Halil Rud basin.

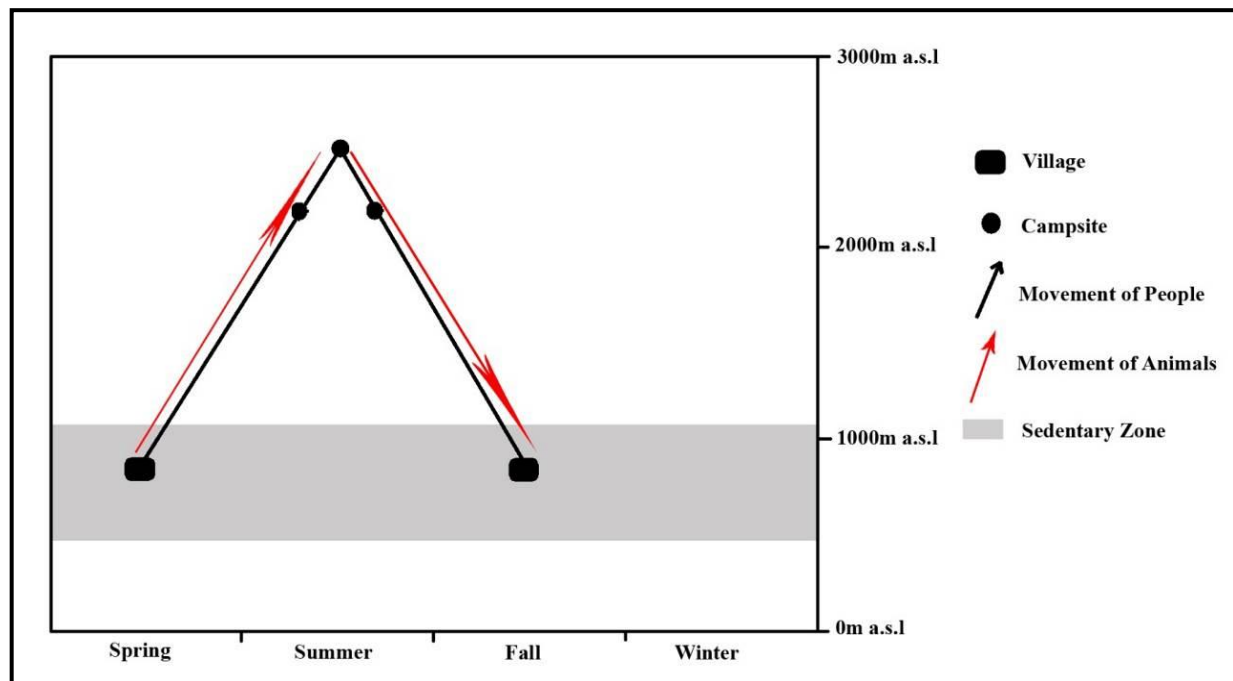


Table 1: Schematic Diagram of Transhumance pastoralism in Halil Rud Basin

#### 4. DISCUSSION

Hanzaf project included surveys behind Hanzaf dam, excavations at the disturbed Bronze Age cemetery and the 2 campsites near the graveyard. Three trenches were opened in the cemetery and no graves

were found which revealed that the cemetery had been completely destroyed by dam construction activities. According to the sherds discovered in this graveyard and dimensions of the natural mound on which Hanzaf cemetery has been situated, it seems that the cemetery was not large and it didn't contained many

graves. Meanwhile two other trenches were opened and some evidence of a settlement floor related to nomads and part of a stone wall were uncovered from trench IV. A large, circular stone structure was also found from the trench V. It was apparently used as a food storage which protected grain from moist. Trench VI was situated in dam area, north side of the cemetery. Sasanian and Bronze Age stone architectures were found in this trench. The one related to Sasanian period was disturbed and didn't have a regular shape but its settlement floor was recognized. Beneath the Sasanian structure, a circular stone structure was uncovered which was used in Bronze Age as a tent infrastructure. The natural mountainous landscape of the region and the height of 2500 m above sea level, and also the size of cultural deposits and the discovered stone structures of Hanzaf excavation, all suggested that the areas behind Hanzaf dam were in fact Bronze Age campsites belonging to nomadic societies. The existence of a cemetery near these nomadic campsites showed that this countryside was owned by a specific people. Ethnoarchaeological studies revealed that current nomads of the region stay in the plains below the Halil Rud basin like Orzouie Plain (100km to the south of Hanzaf) in winters and use the mountainous area in the north (Hanzaf area) as spring and summer countryside. As a result, we generalized the current migration pattern of the region to its Bronze Age so the association between urban sedentary communities of Halil Rud basin of plain and nomadic communities in the highlands of the basin in the Bronze Age has ascertained but lack of information and evidence prevents us to analyze cultural relations and interactions between the two communities of Halil Rud basin with

different subsistence patterns. The nomadic migration pattern of the north of Baft region has been vertical migration from past to present. There is a thousand five hundred to two thousand meters of elevation difference between the nomads' summer and winter camps in this region. Based on the evidence of Hanzaf excavations and ethno archaeological studies on current nomads of the region we suggest "Transhumant" model for the Bronze Age nomadic societies of the region as an adaptive strategy based on its environment (Table 1). However, we await further archaeological and ethnographic studies to determine the strategy of pastoralism in the Halil Rud basin. As the last word, since mostly the natural resources like Chlorite, Calcite and copper mines are located in the highlands of the Halil Rud Basin where the pasturelands of mobile societies are, one can claim these societies have played a main economic role by exploiting the natural resources, apart from the animal products.

## 5. CONCLUSION

New and valuable information of Bronze Age nomads of Halil Rud basin was obtained from rescue excavations at Hanzaf Dam pastoral sites. The importance of this information is that Hanzaf is the first Bronze Age pastoral campsite excavated in the region or even in southeastern Iran. Admittedly, what we know from the Bronze Age pastoral societies of SE Iran is still very little; but the existence of the settlements like Hanzaf persuade us to revise our thoughts regarding the role of pastoral societies in emerging and developing the cultural urban landscape of the region during Early Bronze Age.

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