

The Chalcolithic Period in the Bakhtiyāri Highlands: Recently-discovered Sites in Fārsān, Chāhār Mahāl va Bakhtiyāri, Irān

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Abstract: Fārsān is a county in the Chāhār Mahāl va Bakhtiyāri Province, located in the Central Zagros region, where fairly high mountains with several peaks reaching a height over 3000 meters overlook a natural landscape consisting of a relatively small plain and multiple ravines that disperse away. Archaeologically, the plain is among the least-known areas on the Iranian Plateau. An archaeological survey program was carried out in the area in 2007 by the author. This survey identified and recorded a large number of prehistoric sites of which 28 could be dated to the Chalcolithic Period. Not surprisingly, given the natural setting of the region, surface scatters without significant height account for a major proportion of the identified sites. Based on the morphology and observations of the modern regional nomadic tribes as well as the scarcity of surface finds, the recorded sites are of temporary encampment nature. In the surface assemblage from Fārsān, the Early, Middle and Late Chalcolithic phases are represented, though the material from the Middle phase predominates. Thus, the majority of the sites may belong to this phase. In the Early Chalcolithic Period, we are faced with fewer sites, while the Late phase shows a decreasing trend in terms of site distribution compared to the Middle Chalcolithic Period. The Chalcolithic pottery reveals very close relations with contemporary material from Fars (Bakun A and B), Khuzestan (Middle and Late Susiana) and to some extent from the Iranian Plateau. However, the closest parallels can be found in the prehistoric cultures of Fars. Extensive cross-regional interactions appear to have prevailed between Fārsān and Susiana plain and Fars in the period under discussion. Increased intra and inter-regional contacts in effect characterize the Chalcolithic Period. Though also being the case in the preceding periods, the trend towards increased contact significantly augmented in this period as the large body of available evidence suggests. The Chalcolithic sherds collected during the present survey find close parallels among the related assemblages from sites in Susiana and Fars.

Keywords: Chalcolithic, Fārsān, Pottery, Nomadism

Introduction

Chāhār Mahāl va Bakhtiyāri province is located in the southern part of the Zagros Mountains (Fig. 1). The region is little-known archaeologically compared to the other mountainous parts of the Iranian Plateau. The main information on the region comes from initial surveys of Zagarell between 1974 and 1978. This important region separates the two cultural zones of southwestern Irān, i.e., Fars to the east and Khuzestan to the west. The survey area, (i.e., Fārsān), is situated in the northern part of the Bakhtiyāri region. No archaeological survey was done in the area prior to the fieldwork reported in the present paper.

The first season of archaeological survey in Fārsān County went on for two months in the summer of 2007, recording a total of 216 sites from the Middle Paleolithic to the Qajar period (Khosrowzadeh 2007). The identified sites mainly represent temporary encampments. They usually contain sparse, eroded surface material, and are located in the narrow canyons that descend to the Fārsān plain; on low, natural mounds or on the slopes. Out of the total of 216 sites recorded, 28 date from the Chalcolithic Period.

The Survey Area and Environmental Considerations

The areas discussed in the present report lie in the most mountainous and highest parts of the Bakhtiyāri region. The county of Fārsān is located in the southern-central Zagros region (Fig. 1), and the regional natural landscape is dominated by the Jahānbin, Kelk, Choubin and Saldarān mountains that feature several peaks over 3000 meters. The landscape consists of a relatively small plain and the valley system that surrounds it. Similar to the other parts of the Zagros range, this part shows a general northwest-southeast orientation, consisting of parallel valleys. Geomorphologically, the region is formed by high mountains, deep valleys and alluvial plains, which endow the terrain with the capacity of being used for various purposes. The region is watered by the Fārsān River and effluent tributaries that join it in the mountain.

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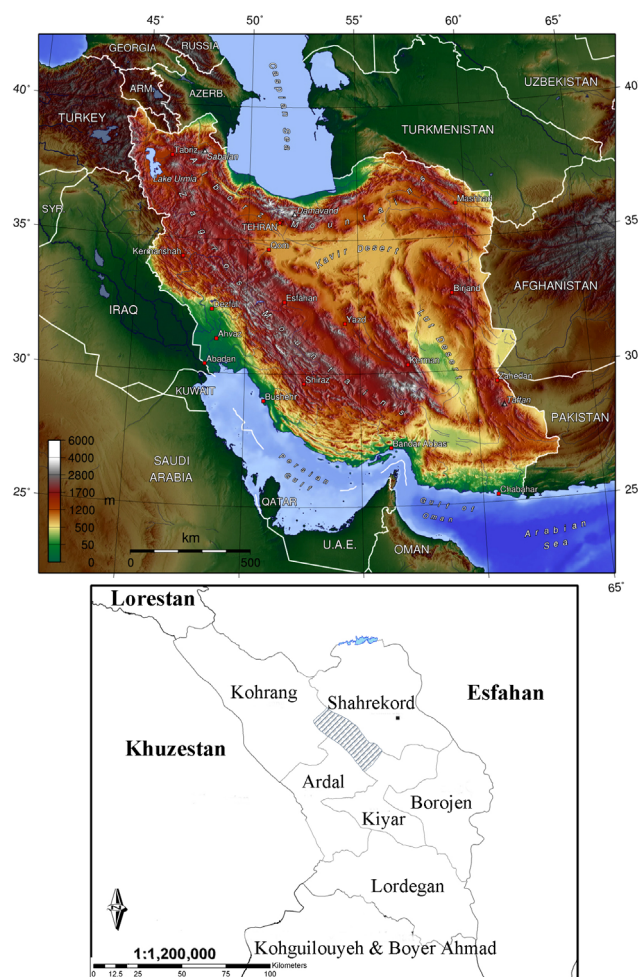


Figure 1. The location of the survey area, Fārsān county in the map of Irān.

Fārsān is one of the most fertile intermountain plains of the province. Occupying an area of 20 x 6 km, the plain has an altitude of over 2000 meters and is longitudinally oriented northwest-southeast (Fig. 2). The plain is rather flat, with the center somewhat deeper than the margins. Bidekān and Choubin to the north, Saldarān to the west, Jahānbīn to the east and Soukhteh to the south are the mountains that flank the plain. The widest part of the plain is the area between Pordanjān and Dah Cheshmeh villages while the narrowest part lies in the northwestern end, i.e., in Filābād and Bāba Heydar villages. It is separated from Soureshjān and Shahrekord County by the Pordanjān gorge to the east, from Kouhrang County by the Hiregān gorge and Omidābād to the west and northwest, and from Ardāl County by the Darkesh-Varkesh gorge to the southwest. The soil is so fertile that the entire plain is suitable for a variety of crop cultivation. There are several rivers and springs in the plain. A major river in the plain is the Sarāb-e Omidābād that begins in a karstic cave in a ravine known as Omidābād located south of Bāba Heydar, running in a

northwest- southeast direction towards the city of Fārsān. The river flows close to the villages of Bāba Heydar, Filābād and Isāābad. Locally known as Āb-e Fārsān, it runs towards Jouneghān plain after irrigating the farmlands of Fārsān.

Another major water source is the Pordanjān River arising in the Bidekān Mountains in Soureshjān, crosses Pordanjān gorge before running southwest towards Fārsān city, and joins Sarāb River in the Fārsān plain. Yet another stream, called Gorgak, joins Pordanjān River in the Pordanjān plain. Having converged and crossed the villages of Gousheh and Choghahast and the Jouneghān plain, the Pordanjān and Sarāb Rivers cross the Darkesh-Varkesh gorge, at the end of which join Kiār River that rises in Soukhteh Mountain, and then continues its way towards Beheshtābād in Ardāl. Other than these Rivers, several springs flow in the valleys and ravines that flow into the Fārsān plain, the major function of which is to irrigate farmlands and gardens.

Fārsān does not exhibit diversity in terms of plant coverage. The long-lasting cold season and icy days coupled with such limitations as unfavorable soil in some parts of the county are among the factors responsible for this situation. Accordingly, today there is no major forest species within the county, and the plant coverage mainly consists of gardens, crops and pasture plants including various goat's thorn species.

The high mountains surrounding the plain on all sides have multiple small and large valleys that contain most of the identified archaeological remains. The fertile intermontane valleys, often well-watered, are highly favorable for a mixed subsistence economy of limited agriculture and nomadic pastoralism. Some of these valleys are still being heavily cultivated. On the other hand, a few of these valleys are suitable merely for animal husbandry. Here, the terrain is too gravelly and damp to be cultivated. Therefore, we are dealing with a region that is capable of hosting a large population given its location between mountains, with rich resources for farming and herding. Further, the plain and its valleys are connected to the surrounding valley system and plains, thus permitting intraregional contacts and interactions.

Among the valleys with the highest population are Āb-e Sefid, Hasan Zanbari, Bakān, Choubin and Hiregān. Also, significant remains have been recorded in the two gorges of Pordanjān and Darkesh-Varkesh. There tend to be one or more permanent springs in these valleys. They are located between lofty mountains surrounding the Fārsān plain, and the streams flowing from them usually descend gently towards the plain. The soil is very rich in these valleys, and the majority of the modern gardens of the region are to be found in them thanks to the existence there of several springs and abundance of water. Fewer sites are recorded in the plain compared to the surrounding valleys. This

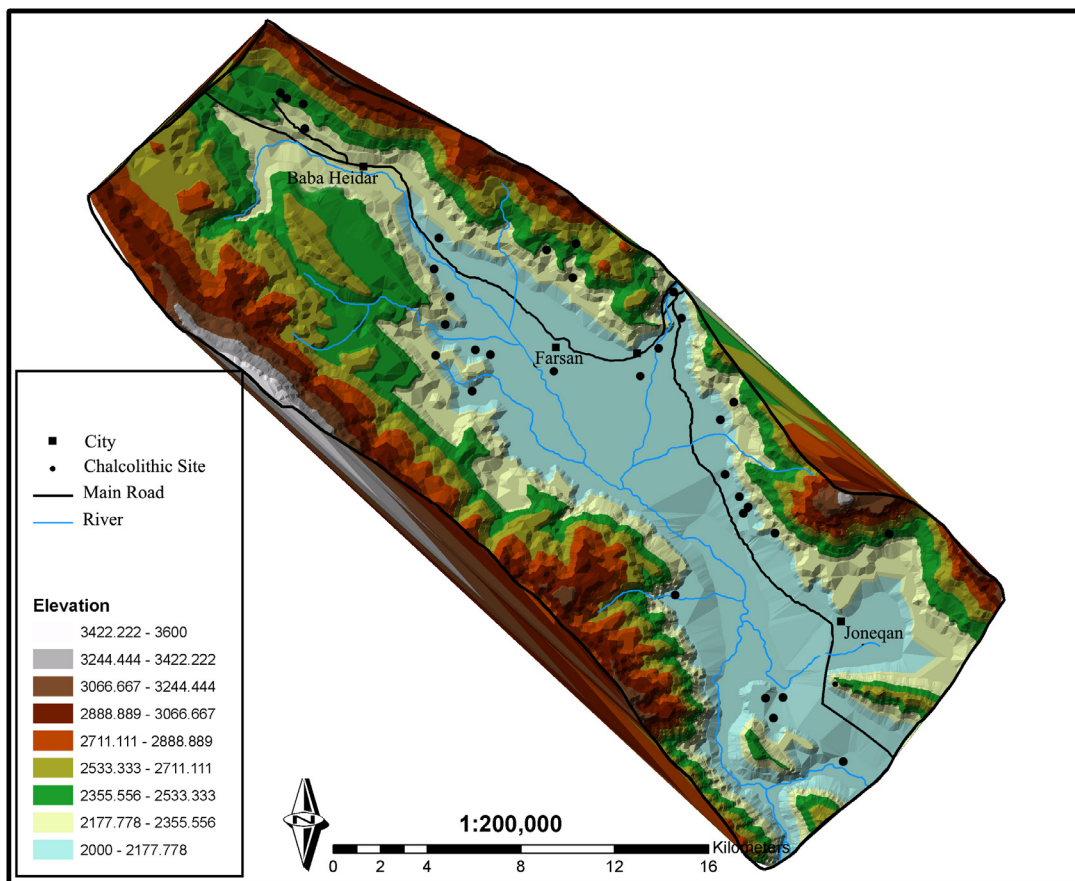


Figure 2. Distribution of the Chalcolithic sites in the survey area.

might be explained by the higher water table of the plain in the past. Nowadays, the water table is similarly high, and the area is mainly seen as wetland and reed beds. This wetland body is dry in some points, but based on local information in some rainy seasons water can be reached at just 1 meter below the surface. The major part of the plain is covered with grass and bushes different from those covering the other sections of the plain. The western part of this wetland body is characterized by reed beds. No agricultural activities were carried out on this wetland until the recent years, a possible reason for which was perhaps the higher water table. This situation is currently seen in the western and northwestern portions of Jouneghān, around the villages of Choghahast and Korān, particularly on the banks of the Fārsān River. Around this wetland body, particularly its eastern and western extremes, wide distribution of modern sedentary settlements and transient nomadic camps are to be seen. It is also flanked with multiple permanent springs. Similar setting prevails in many of the Bakhtiyāri intermontane plains. Some of them still remain as lake such as Choghā Khor, Gandomān, Aliābād and Soulāghān; while others have already dried, including Alouni in Lordegān area, Chāl Laghārak in

southeastern highlands of Kouhrang, and the dried wetland northwest of Shahrekord plain.

The Fārsān plain thus provides favorable conditions for a mixed subsistence system of irrigated and dry-farming and the mountain slope sand valleys for raising animal herds, where the main part of the plain is exclusively used by farmers while the valleys descending to the plain and the mountain slopes are solely exploited by herders.

Survey Methodology

Regional topography was the main consideration for determining the survey method. The survey area consists of a small intermontane plain (Fārsān) and the surrounding valleys (fig. 2). The team attempted to cover the entire landscape through intensive survey. The morphology of the region is marked by small and large valleys. The valleys are mainly small, narrow and elongated, with only a few of them being over 5 km in length. Each individual valley was surveyed intensively. The survey failed to cover only those expanses of the plain that were under cultivation or covered by dense trees or floral coverage. However, these sections were also surveyed through information obtained



Figure 3. View of Tepe Rahim Ābād (FS 20).



Figure 4. View of Tepe Gole Gandom (FS123).

from local farmers and informants. The identified sites were designated with a sequential Arabic number following the prefix FS (Fārsān Survey).

Chalcolithic Sites and Settlements

The Chalcolithic Period on the Iranian Plateau is characterized by a population surge, a fact that is clearly seen during the earlier phase of this age throughout the region as it is evident in a significant rise in the number of archaeological sites (Hole 1987; Alizadeh 1992). In the Fārsān County, the Chalcolithic Period similarly saw an increase in the number of settlements, in that 28 of the total identified sites are to be attributed to this period (Fig. 2). The majority of Chalcolithic occupations are to be found in sites that were established for the first time in the Chalcolithic Period. Similar to the Neolithic Period, the Chalcolithic settlements tend to be on the mountain slopes and high mounds in the small valleys descending to the Fārsān plain. Unlike the Neolithic period, the Chalcolithic sites are concentrated in northern parts of the plain for reasons that remain unclear. Next to most of these sites lies a permanent spring. Some are also situated on Pordanjān, Fārsān or Dah Cheshmeh River banks. The sites of this period likewise represent eight sedentary settlements and 20 temporary encampments. The latter tend to be located on mountain slopes with rich nearby water sources and seasonal pastures, whereas sedentary sites are concentrated at the edge of the Fārsān plain, usually on natural, low mounds. Tepe Gol-e Gandom (FS123) in Pordanjān, Tepe Cheshmeh Sāleh (FS104) in Korān, Hasan Zanbari 2 (FS163) in Goujan, and Siāh Gel (FS178) in Filābād are among the largest sites. The major temporary encampments, based on the frequency of surface scatters, include the site in Dar Eshkaft valley (FS41), Gol Darreh 1 (FS38), Al Maghāji 2 (FS59), Darreh Jāni 2 (FS88) and Bar Āftab in Kuh-e Sheikh (FS61). The largest and most

important Chalcolithic sites are Tepe Gol-e Gandom 2 with a total area of 2 ha and Siah Dan 1 with 1.2 ha. Similar to the Neolithic sites, the settlements from the Chalcolithic Period are situated in points furnished with the basic prerequisites of a mixed subsistence economy. The region has abundant water, highlands flank the sites, and large to small sites are visible.

The surveys carried out in other parts of the province have similarly recorded Chalcolithic sites that mainly represent nomadic camps or temporary encampments. Most of the identified sites are very small. The Chalcolithic sites are clustered at the edge of the wetlands and meadowlands (see Nowruzi 2009; Zagarell 1982).

Based on the available archaeological data, especially the pottery collections, we are faced with a new model of intraregional interaction and growing mobility in the second half of the fourth millennium BCE. The contacts between the northern part of the region and the Iranian Plateau could have intensified in this phase while the cultural interactions of its southern half still followed the Fars ceramic sequence (Nowruzi 1995). In Fars, the period is characterized by a disappearance of the classic Bakun A ceramics and higher frequency of a certain red pottery type, named Lapui Ware after its type site (Alizadeh 2006: 12). Examples of typical Lapui pottery of Fars, whether locally made or imported, were collected from a number of sites during the survey program in Minā Kuh district in Ardāl county, and corroborate the association with the Fars region (see Khosrowzadeh 2009; 2010).

Important Identified Chalcolithic Sites

Rahim Ābad 1 (FS20): This is one of the major Chalcolithic sites that can unquestionably be dated to this time range. It lies on a natural, almost oval hill with mild slopes all around. Large and small pebbles visible on the surface were probably related to the original architecture of the site



Figure 5. View of the site of Dare Hana 2 site (FS139).



Figure 6. View of Tepe Post-Nare (FS183).

(Fig. 3). Sherd scatter is discernible within a section 100 meters in diameter on the surface. The surface collection also includes few lithic remains.

Talkheh Dān (FS24): This site lies 400 meters south of the village of Pordanjān. It appears to have been leveled completely and there are no elevated parts in the surrounding area. The site was under wheat cultivation at the time of our survey, and the two dirt paths to its east and south both lead to the Pordanjān village.

Gol Darreh 1 (FS38): This site is 3 km southwest of Jouneghān, on the dirt path that leads to Jouneghān-Ardāl road from the east. Interview with local people revealed that the site was formerly in the shape of a mound over 3 meters in height before it was leveled by the farmers to make way for a farmland. Currently, the original place of the mound is under wheat cultivation. Sherd scatter over the leveled portions of the mound is visible over an area of 100 meters in diameter.

Dareye Dar Eshkaft (FS41): This site is situated 3 km north of Gousheh in a valley well-known as Dar Eshkaft. The site lies on the end of the mild, southwestern slope of a fairly high mountain, further down the Dar Eshkaft cave. The site appears as a low mound, standing almost 0.5 meter above the surrounding lands. Large numbers of small and large rubbles scattered across the surface were probably used in the structures that once stood there. The surface sherd scatter was sparse, covering an area of 80 x 100 meters.

Al Maghāji (FS59): This site is located 4.1 km west of Jouneghān, at the eastern edge of Al Maghāji Mountain. It lies on the eastern slope of the Al Maghāji Mountain and falls away gently to the Gol Darreh plain in Jouneghān to the west. The surface of the site was ploughed and was under wheat cultivation at the time of the survey. Large quantities of small and large cobbles scattered over the surface are probably the remains of ancient constructions. The northern part of the site is cut by some small pits that

are the results of clandestine diggings. The thin surface sherd-scatter covers an area of 80 x 80 meters.

Eshkaft of Kuh-e Sheikh (FS60): Dating from the Chalcolithic Period, the site lies southwest of the modern Jouneghān town, in the northeastern end of the Jouneghān plain. It is a small cave, located in the relatively vertical walls of the Sheykh Mountain, almost 200 meters above its base. The cave has an almost oval opening, about 3 meters wide and 8 meters high facing southwest. The cave consists of several distinct spaces or compartments; the surface of the entrance space and the first chamber consist mainly of bedrock, and a limited part of it contains loose archaeological deposits buried in some points by angular pebbles separated from the walls of the cave and the constructions of the second and third levels of the cave that lay over the first level.

Pamodbāghi (FS122): This site is at the eastern edge of the Pordanjān village. It consists of a low mound, the eastern and southern parts of which were completely bulldozed creating a high terrace on which archaeological deposits are clearly visible associated with cultural material including pottery sherds and bones. Modern village houses have obliterated western and northern sections of the site, probably covering portions of archaeological deposits. The exact size of the site is difficult to determine; however, over an area measuring 80 x 50 meters surface sherd-scatter and evidence of archaeological deposits can be seen.

Tepe Gol-e Gandom (FS123): As said, it is one of the largest sites from the Chalcolithic Period identified during the present survey. The site is at the southern edge of the Pordanjān village on a low natural, oval mound about 200 x 100 meters in dimensions, on which stands the archaeological site of Tepe Gol-e Gandom. The mound represents one of the highest points in the plain that hosts the Pordanjān village (Fig. 4). The high concentration of its surface finds suggests that most parts of the mound were used for settlement. The top of the mound stands some



Figure 7. View of Tepe Panjali (FS200).

17 meters above the surrounding plain. On all sides the mound slopes down gently, bounded to the east, west and south by the farmlands on the edge of the village, and to the north by residential houses of the village which have partly obscured the site.

Dare Hanā Bāll 2 (FS139): The site is located 4 km northeast of Fārsān at the end of the Upper Hanā valley, on the slopes of Gerdeleh Mountain (fig. 5). It is represented by surface sherd scatter and lithic remains that occupy an area 150 meters in the east-west side and 100 meters in the north-south side. The area lies on the southern slope of Gerdeleh Mountain, and with its mild slope is in fact considered a terrace. The site is bounded by the mountain to the north and by the Hanā valley to the east and south.

Darreh Pahn 2 (FS147): The site is located in a fairly wide valley, 3.7 km northwest of Fārsān. The valley is comprised of a low, hilly area that gently descends into the Fārsān plain to the south. The site is made up of two distinct parts, separated by the dry course of a narrow brook. The part lying to the west of the dry brook rests on a small, low mound, and the one to the east of it occupies the end of the western slope of a fairly high mountain.

Varazmoun 2 (FS156): This site is located south of Isāābād village, again on a low mound. The surface of the mound was almost leveled to make way for almond and walnut gardens, and currently only the eastern part of the site remains intact. The site revealed fairly dense surface sherdscatter over an area of 50 x 100 meters, with the highest concentration in the eastern side.

Eshkaft-e Hasan Zanbari (FS164): The eshkaft (i.e., cave) rests on the slopes of a fairly high mountain, in the northwest side of the valley locally known as Hasan Zanbari. The south and east slopes of the mountain that overlook the Hasan Zanbari valley are rather steep.

The opening of the eshkaft looks across east and south, dominating the Fārsān plain and the surrounding valleys. The eshkaft has two separate shafts. Though the upper shaft was inaccessible because of its high location, it appears that it is identical to the lower one in shape, and a wall of stone and *sāruj* was built before it. The opening of the eshkaft is fairly wide. The lower shaft consists of two sections: the entrance which resembles a terrace, and the interior which is separated from the entrance by the abovementioned stone wall.

Ab-e Sefid 7 (FS171): Located almost 1 km from Goujān village in the wide valley known as Ab-e Sefid, the archaeological site designated as Ab-e Sefid 7 was formed at the end of the southern slope of a fairly low mountain, in the western Ab-e Sefid valley. The site covers an area of 150 x 80 meters, and lacks flat surface because of its location on a slope. There is no floral coverage on the surface of the mound, but it is covered with significant amounts of cobble and gravel.

Siah Gel (FS178): Lying 1.5 km northwest of the modern village of Isāābād, the site has a distinct morphology thanks to the natural hump on which it is perched. The hump measures about 100 x 100 meters. The site is visible from a distance and from all directions as a Tepe on the slopes of a natural hill. On the surface of the site lots of large and small cobbles are seen which probably originated from the early constructions at the site. The moderate surface sherdscatter shows its highest concentration in the eastern parts.

Poust Nareh (FS183): This site is situated within the gardens that take up the eastern fringes of the Filābād village, at a distance of about 400 meters to the north of the paved road linking Filābād with Fārsān. The site is among the rare mounded sites identified in the Fārsān plain. It is a small, almost circular mound with a diameter of ca. 100

meters. The mound falls away gently on all sides, and is confined within farmlands (Fig. 6). It has a natural bed and thick floral coverage, and is quite intact.

Tepe Panjali (FS200): The mound lies at the southern margin of the Fārsān city, and is similarly surrounded by farmlands. It is situated almost in the central part of the Fārsān plain. The archaeological site fills up the southern, northern and eastern slopes of this natural, conglomerate mound. The mound stands about 2 meters above the surrounding lands, with an almost northwest-southeast orientation (Fig. 7).

Apart from the sites briefly described above, Chalcolithic pottery was also present at the sites of Gol Dare 2 (FS39), Ganjgāh 1 (FS85), Dare Jeni 2 (FS88), Siāh Dān 2 (FS90), Dom Tang 2 (FS130), Pordanjān gorge (FS133), Isiābād 2 (FS155), Hasan Zanbari 2 (FS166), Hasan Zanbari 3 (FS166) and Hasan Zanbari 4 (FS167).

Chalcolithic Pottery

Ceramic technology is one of the outstanding features of the Chalcolithic Period. This prehistoric period witnessed such important developments in pottery production that the Iranian prehistoric pottery tradition reaches its zenith in this period (Alizadeh 2006). The developments in Chalcolithic ceramics go beyond the technical aspects to also affect the rich repertoire of motifs painted on the vessels. In this context, the increased production of painted vessels and the emergence of a wide range of pottery painting styles during the Chalcolithic period represent major cultural transitions in prehistoric Irān.

Preliminary study of the Chalcolithic ceramics suggests very close relations between the ceramics of the region under study and the Chalcolithic material from Fars (Bakun A and B), Khuzestan (Middle and Late Susiana) and also to some extent from the central and western Iranian Plateau. However, the Chalcolithic pottery of Fārsān shows closer resemblance to the prehistoric cultures of Fars and Khuzestan regions. The pottery of this period falls into three major categories: plain, coarse and painted (Figs. 8-13). The plain assemblage includes buff, cream, buff-green, light green and less frequently orange wares. Characteristic of the Chalcolithic ceramics is the paste which tends to be buff or its different shades. Sand and fine white particles were used as temper. In some sherds, the temper is difficult to detect and is unknown. Thanks to the significant advances in pottery kilns of the Chalcolithic period, the sherds are well-fired with only a few poorly fired examples. All are handmade. Some have cream or buff slip. The entire sample is badly damaged so that most of them have abraded surfaces and some are covered in lime scale.

Almost all the conical and spherical small vessels are made of buff clay with no discernible inclusions. Some

contain fine grits, which was probably present in the clay itself and was not added intentionally. The core was oxidized and fired at sufficient temperatures. The surface was carefully smoothed, and occasionally, when the lower temperature failed to fully integrate the body and the slip, a thick yellowish buff or a cream buff layer is visible on the surface. The surface color tends to be buff but ranges from yellowish buff to cream and pinkish buff and sometimes even light red.

A number of large vessels and jars are made of buff clay tempered with sand, fine grit and lime particles. The core is almost always well-fired and shows a consistent buff color. Occasionally, however, its color ranges from pinkish buff to grayish buff and greenish buff, which could have resulted from over-firing.

The painted type is seen in buff, creamy or greenish creamy. Their quality surpasses that of the plain wares, and their paste contains sand as temper. The painted designs tend to be rendered on the exterior surface, but a few painted interior surfaces are present. The designs generally include geometric motifs represented mainly by parallel bands and lines, undulating lines, hanging triangles, checkerboard patterns, ladders and dot motifs (a typical decorative element of Middle and Late Susiana period in Khuzestan and Bakun B and A in Fars)(Fig. 12).

The surface finds also include another painted type different from the previous category. The examples of this type are orange, red or light brown in color, usually with a brown or black paint applied on the surface.

The Chalcolithic collection from Fārsān contains four major types of the bases: the first includes pointed bases that possibly belonged to some of the conical-shaped beakers. Pointed bases are similar to Bakun A phase at the site of Rahimābād. The second base type is simple and flat that usually bears painted bands around it. The third and most important type is ring base. This category was found at most of the sites. This base type also has a painted band around it. Finally the beaker-like base type again belongs to the Late Chalcolithic Period. Discovery of these two base types further corroborates the existence of Bakun A phase and Late Susiana phase at recorded sites in Fārsān (Fig. 13).

The buff ceramics collected from the Chalcolithic sites of Fārsān are comparable to the material from Tepe Nourābād (Weeks *et al.* 2006), Tal-i Bakun (Alizadeh 2006), Tepe Afghān (Zagarell 1982) and Chogha Mish (Delougaz & Kantor 1996).

A characteristic form of Bakun type pottery in Fārsān is represented by the bowls with intricate decorations on their interior surface. Related bowls are known from early Bakun levels in Marvdasht, for instance at Tal-i Bakun B (Egami & Masuda 1962: fig. 17.B2). At Tepe Nourābād, bowls with delicate decorations on the interior surface in the latest phases of the Bakun period (Phases A15-A16)

generally have decorations in the form of straight and undulating lines together, a characteristic pattern that to some extent typifies the final phase of the Chalcolithic Period in Marvdasht, for instance at Tal-i Bakun A (Egami & Masuda 1962: fig. 11; Langsdorff & McCown 1942: pls. 28-29).

As stated, ceramics with polished slip or unslipped sand-tempered ceramics or the well-known fine Lapui pottery were also collected from a number of sites in Fārsān. Both pottery types in the surface collection from Fārsān sites find parallels in the Lapui pottery collection from the surface of Tal-i Bakun A (Langsdorff & McCown 1942: pls. 19-21; Egami & Masuda 1962: fig. 12) and the material collected during surveys at other sites of Marvdasht (Sumner 1972, 1988: figs. 2-3).

Another attribute displayed by the Chalcolithic ceramics from Fārsān is the use of small punctuated dots as decoration. In Susiana plain, this particular motif appears at the end of the Middle Susiana phase, comes into vogue in the following Late Susiana 1 phase, and finally disappears in the early phases of Late Susiana 2. Also, this pattern coincides with the appearance of this particular motif in the Central Zagros. If the dotted pottery is related with the wide expansion of nomadism, then one could similarly link the existence of this pottery type in the Central Iranian Plateau with the same phenomenon (Alizadeh 2006: 67).

Using dots to decorate pottery in Fars is seen in Bakun B2 period (Egami & Masuda 1962: figs. 14. 3-4, 15. 9), in Gap phase and at Bakun A (Langsdorff & McCown 1942: pls. 54. 15, 62. 6-7; Egami & Sono 1962: fig. 17. 6-12). The motifs appear to have emerged in an earlier period in Fars and remained in use for a longer period there compared to Fārsān. Related motifs are reported from Behbahan, Ram Hormuz (Tal-i Ghazir) and Luristan (Tepe Giyan) which suggests their widespread geographical distribution (Alizadeh 1992: 24).

The most fascinating forms among the painted material from Chalcolithic period, made of fine buff fabric, are deep bowls, phiales and thin-walled goblets (Figs. 8-13). The painted motifs were generally rendered only on one surface, either interior or exterior, and sherds with both painted surfaces are rare. These bowls have simple rims and lack carination. They have flat or short ring bases. The painted patterns generally include a wide array of geometric designs with wide bands above and below them. Occasionally one or two narrow bands were added to the edges. A single thick band always decorates the base.

Painted bowls fall into three classes: vessels with painted designs only on exterior surface; vessels with decorations only on interior surface; and those with both surfaces decorated. Bowls with painted exterior surface occasionally have slightly everted rims (e.g., Fig. 8). Bowls with decorated interior surface have upright or slightly inverted rims. These bowls sometimes have pedestal bases (Fig. 8).

Necked jars constitute another prevalent form of the Chalcolithic pottery in Fārsān. Most of these jars usually have elongated necks, which are plain or painted (Fig. 10). Painted examples usually bear elaborate motifs and have simple round or everted rims. Decorations are in general restricted to the upper body and rarely extend to the lower part. These jars tend to bear simple painted motifs, with Fig. 10: 6, with its animal figures, being an exception.

The most common jar type is V-shaped jars that resemble the V-shaped bowls. These two types are often not easily distinguished from each other. In these jars, the decorations tend to cover the exterior surface while in V-shaped bowls the interior surface is simply decorated in some examples. Related jars are abundantly known from surface surveys of Shahrekord (Zagarell 1982: 34, figs. 19-20).

Another jar type has a flaring rim that is wider than the rims of the previous category. The exterior surface of this type shows no decorations.

The cooking pot category has a coarse buff, brown or black fabric. These vessels are spherical in shape and invariably have closed forms. They are generally plain, but few painted examples are also present.

The Late Chalcolithic remains are interesting given the absence of distinctive forms of contemporary sites in other parts of the Bakhtiyāri region, especially Shahrekord plain (Zagarell 1982: figs. 25-26). In particular, not even a single piece of the characteristic shallow trays of the Proto-Elamite levels in Susiana and Middle Banesh phase in Malyan (see Le Brun 1978: fig. 23. 7-10; Steve & Gasche 1971: pl. 32. 43-55; Sumner 2003: fig. 23; Nicholas 1990: pl. 13. a-j) are discovered in Fārsān.

Regional variations in the pottery assemblages cannot be proposed here since the shallow trays are prevalent in the Late Chalcolithic Period in the Shahrekord plain (see Zagarell 1982: figs. 25-26). Apart from shallow trays, the distinctive beveled rim bowls are also absent from the Late Chalcolithic sites in Fārsān. However, beaker bases were found at a number of them.

Conclusion

The majority of the identified sites in Fārsān county date from the Chalcolithic Period. Results of the present survey suggest a sharp rise in the number of sites and population in this period relative to the preceding period. The number of sites shows an increase from 14 Neolithic sites to 28 Chalcolithic sites. In fact, the Chalcolithic period witnessed a surge in the number of settlements since each fairly small valley contained some settlements from this period. In effect, the escalation in settlement distribution in the Chalcolithic Period, particularly its middle phase, is evident throughout the Bakhtiyāri region. The Chalcolithic Period marks a period of prosperity throughout the region. Excluding the Islamic sites, the identified sites in the Fārsān plain mainly belong to this period. Distribution of the sites

across Fārsān plain also shows an intriguing pattern in that they are scattered all around the plain. With the exception of Gol-e Gandom and Siāh Dan 1, the majority of the sites are 1 ha or smaller.

Comparative studies suggest that all three phases of the Early, Middle and Late Chalcolithic Period are represented in the surface pottery sample from Fārsān. Those from the Middle Chalcolithic Period predominate. As said, the Chalcolithic period experienced a surge in population and site distribution, which occurred during its middle phase. In the Early Chalcolithic we are faced with fewer sites while the Late phase shows a descending trend in terms of site distribution compared to the Middle Chalcolithic. This is reflected in the small pottery assemblages from sites of this period. Condensed site distribution is not restricted to the Fārsān plain, and is similarly seen in other regions such as Susiana plain (Alizadeh 1992), Fars (Alizadeh 2006: 12), Central Zagros (Hole 1987) and other areas of the Bakhtiyāri region (Zagarell 1982: 62).

Survey programs carried out in other areas of the Chāhār Mahāl va Bakhtiyāri Province reveal similar changes in settlement patterns in this phase (e.g., Zagarell 1982; Nowruzi 1995, 2009). Survey in Shahrekord does not suggest a significant variation in settlement patterns between the Neolithic Period and the three phases of the Chalcolithic Period. Of the total of 32 sites with Chalcolithic material in this region, 14 were associated with Middle Chalcolithic and 17 with Late Chalcolithic remains. In the settlement patterns no discernible changes are to be seen, though over half of the identified Late Chalcolithic sites represent single-period sites that were settled for the first time during this phase. A lower number of settlements in other regions is evident (Nowruzi 2009: 166). This decrease is not necessarily an indication of a drop in population, however. Adoption of new occupation (not settlement) strategies, which could be encouraged by various factors, will create bias in any comparisons that build on the quality of the settlement, which might in turn lead to flawed conclusions as the low, small and single-period sites are often buried under sediments and can only be identified through excavations.

It appears that intense cross-regional interactions went on between the Fārsān plain and Khuzestan and Fars during this period. Also being the case in the preceding periods, as

the available evidence suggests the process significantly escalated in this period. The pottery from this period in the assemblage collected during the present survey closely resembles the material from sites in Khuzestan and Fars. The interesting point about the settlements of this period is that the ceramics from the sites in southern Fārsān bear more resemblance to the Bakun pottery in Fars while the material from sites in the northern half of the plain find closer parallels in the assemblages from Middle and Late Susiana deposits in Khuzestan. However, as it is the case in other parts of the Bakhtiyāri region, clear indications exist to suggest that the pottery traditions of the Bakhtiyāri region started to diverge from those of the low plains in the second half of the Chalcolithic Period (Zagarell 1982: 65). Presence of ceramics similar to the late Neolithic and Chalcolithic material from Fars and Khuzestan is indicative of close ties between the Fārsān plain and the regions mentioned above. Perhaps one of the reasons for these strong ties was the dissemination of nomadism in the Fārsān plain and other Bakhtiyāri highlands. That the identified sites from this period are mainly in the form of temporary camps attests to this hypothesis.

This suggestion will help explain the mechanism that became popular on the basis of particular ratios of pottery decorations in Fars, Behbahān, Dehlorān, and Central and Eastern Zagros. Discovery of copper objects in Fars, Susiana and Zagros regions can be related to a similar mechanism. As regards the long distance trade between low plains and uplands, it will be important to note that recent archaeological works in the Eastern Zagros and western Isfahān have identified several phases with mixed pottery of Late Susiana 1 and Sialk III-3 (Alizadeh 1992: 60).

Therefore, it seems that the main road that connected Khuzestan through Fārsān plain to the Central Plateau of Iran may have been controlled by nomadic and semi-nomadic communities.

Though the Chalcolithic sites in Fārsān yielded no evidence as to local pottery production, the technical properties observed in a number of the sherds might suggest their production in the region or the surrounding regions. However, these sherds bear no resemblance to the known Chalcolithic ceramics from Khuzestan, Fars, Central Zagros and the Central Plateau of Iran.

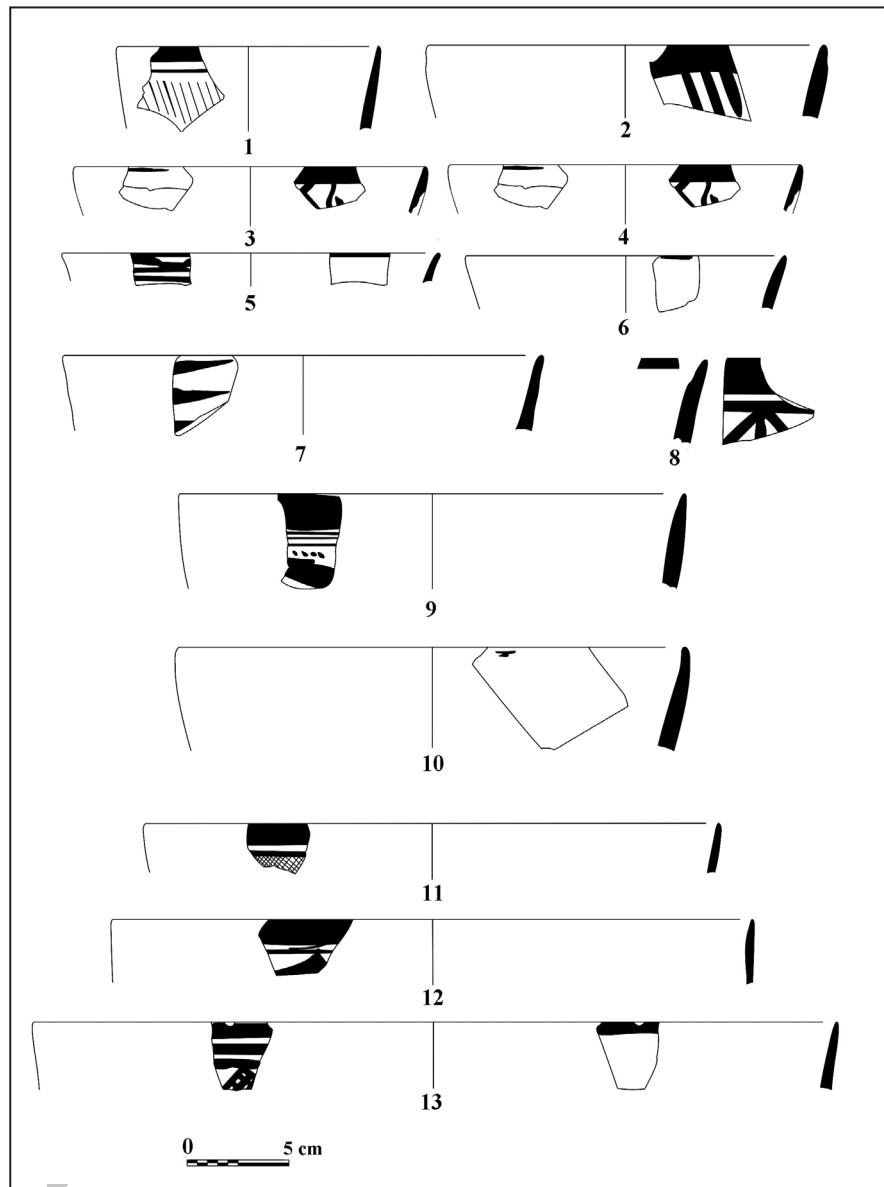


Figure 8. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS163	1. Handmademade; 2. Buff Buff Buff; 3. Sand; 4. Fine; 5. Red Painted; 6. Slip cream; 7. Slip cream	Delougaz & Kantor 1996: pl. 159H
2	FS20	1. Handmademade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted	Weeks <i>et al.</i> 2006: Fig. 3.83. TNP 1272
3	FS123	1. Handmademade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Fine; 5. Black Painted; 7. Slip cream;	Alizadeh 1992: Fig. 23K Zagarell 1982: Fig. 24:2
4	FS123	1. Handmademade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	Alizadeh 1992: Fig. 23K Zagarell 1982: Fig. 24:2
5	FS123	1. Handmademade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Dark brown Painted	Delougaz & Kantor 1996: pl. 174F
6	FS163	1. Handmade; 2. Buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted	Weeks <i>et al.</i> 2006: Fig. 3.91. TNP 1009
7	FS41	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand Vegetal; 4. Medium; 5. Black Painted	
8	FS164	1. Handmade; 2. Greenish buff Greenish buff Grey; 3. Unknown; 4. Medium; 5. Black Painted	Alizadeh 1992: Fig. 36U Zeidi <i>et al.</i> 2006: Fig. 6.8: MSP 77
9	FS20	1. Handmade; 2. Light greenish Light greenish Light greenish; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	Zagarell 1982: Fig. 24:2 Delougaz & Kantor 1996: pl. 171G
10	FS20	1. Handmade; 2. Creamy buff Orange Orange; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	
11	FS163	1. Handmade; 2. Cream Cream Cream; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	
12	FS20	1. Handmade; 2. Reddish buff Reddish buff Reddish buff; 3. Sand; 4. Medium; 5. Black Painted	Delougaz & Kantor 1996: pl. 171J.L Mc Cown 1942: PL.9:1
13	FS200	1. Handmade; 2. Grayish green Grayish green Grayish green; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip greenish buff; 7. Slip greenish buff	Delougaz & Kantor 1996, pl: 13H Langsdorff & MC Cown 1942: PL. 9Z

Table 1. Ceramic Description for Figure. 8

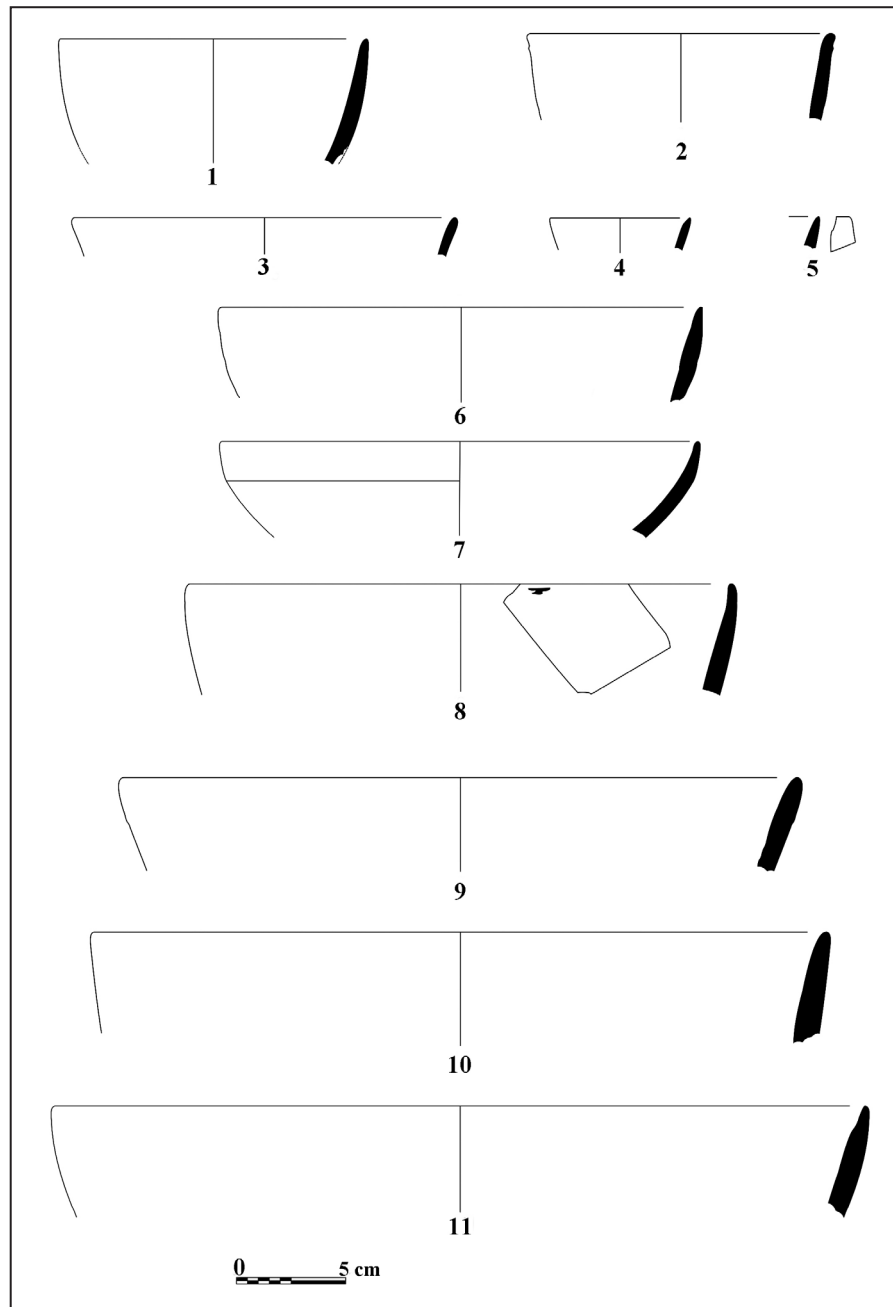


Figure. 9. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS123	1. Handmade; 2. Orange buff Orange buff Orange buff; 3. Sand Vegetal; 4. Medium; 6. Slip red	Delougaz & Kantor 1996: pl. 178XIII Langsdorff & Mc cown 1932: PL. 17:3
2	FS123	1. Handmade; 2. Orange buff Orange buff Orange buff; 3. Sand Vegetal; 4. Medium	
3	FS124	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Fine	Weeks <i>et al.</i> 2006: Fig. 3.90: TNP 1104
4	FS59	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Fine	
5	FS60	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Fine	
6	FS139	1. Handmade; 2. Brownish orange Brownish orange Black; 3. Vegetal; 4. Coarse	Dollfus 1971: fig.10:12
7	FS139	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand Vegetal; 4. Fine; 6. Slip cream; 7. Slip cream	Alizadeh 2008: Fig. 53J Langsdorff & Mc cown 1932: PL. 10:1
8	FS20	1. Handmade; 2. Buff Buff Buff; 3. Unknown; 4. Medium; 5. Black Painted	Zagarell 1982: Fig. 31:8
9	FS159	1. Handmade; 2. Orange Orange Orange; 3. Vegetal; 4. Medium	Alizadeh 2008: Fig. 53:P
10	FS147	1. Handmade; 2. Reddish orange Light brown Black; 3. Vegetal; 4. Coarse	
11	FS139	1. Handmade; 2. Orange buff Orange buff Orange buff; 3. Sand; 4. Medium	Zagarell 1982: Fig. 20:14

Table 2. Ceramic Description for Figure. 9

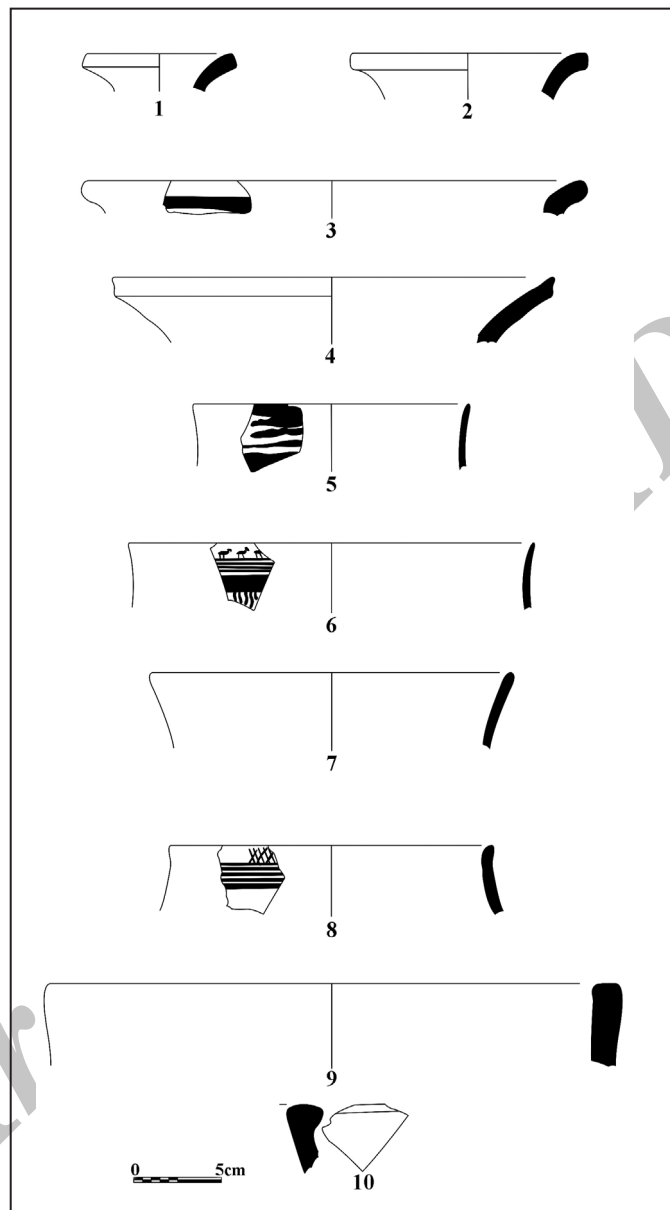


Figure. 10. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS 123	1. Handmade; 2. Buff Buff Buff; 3. Sand Vegetal; 4. Medium; 6. Slip cream	
2	FS 85	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium	Zagarell 1982: Fig. 31:15
3	FS 20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip buff.	
4	FS 123	1. Handmade; 2. Greenish cream Greenish cream Greenish cream; 3. Sand; 4. Medium	
5	FS 85	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Fine; 5. Black Painted	Zagarell 1982: Fig. 24:2 Alizadeh 2008: Fig. 40C
6	FS 123	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Fine; 5. Black Painted; 6. Slip cream; 7. Slip cream	Zagarell 1982: Fig. 24:2 Alizadeh 1992: Fig. 26K
7	FS 59	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Fine; 6. Slip cream; 7. Slip cream	
8	FS 123	1. Handmade; 2. Light green Light green Light green; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	
9	FS 20	1. Handmade; 2. Greenish cream Greenish cream Greenish cream; 3. Sand; 4. Medium; 7. Slip cream	
10	FS 41	1. Handmade; 2. Orange buff Orange buff Orange buff; 3. Sand Vegetal; 4. Medium 7. Slip brown	Zagarell 1982: Fig. 25: 13

Table 3. Ceramic Description for Figure. 10

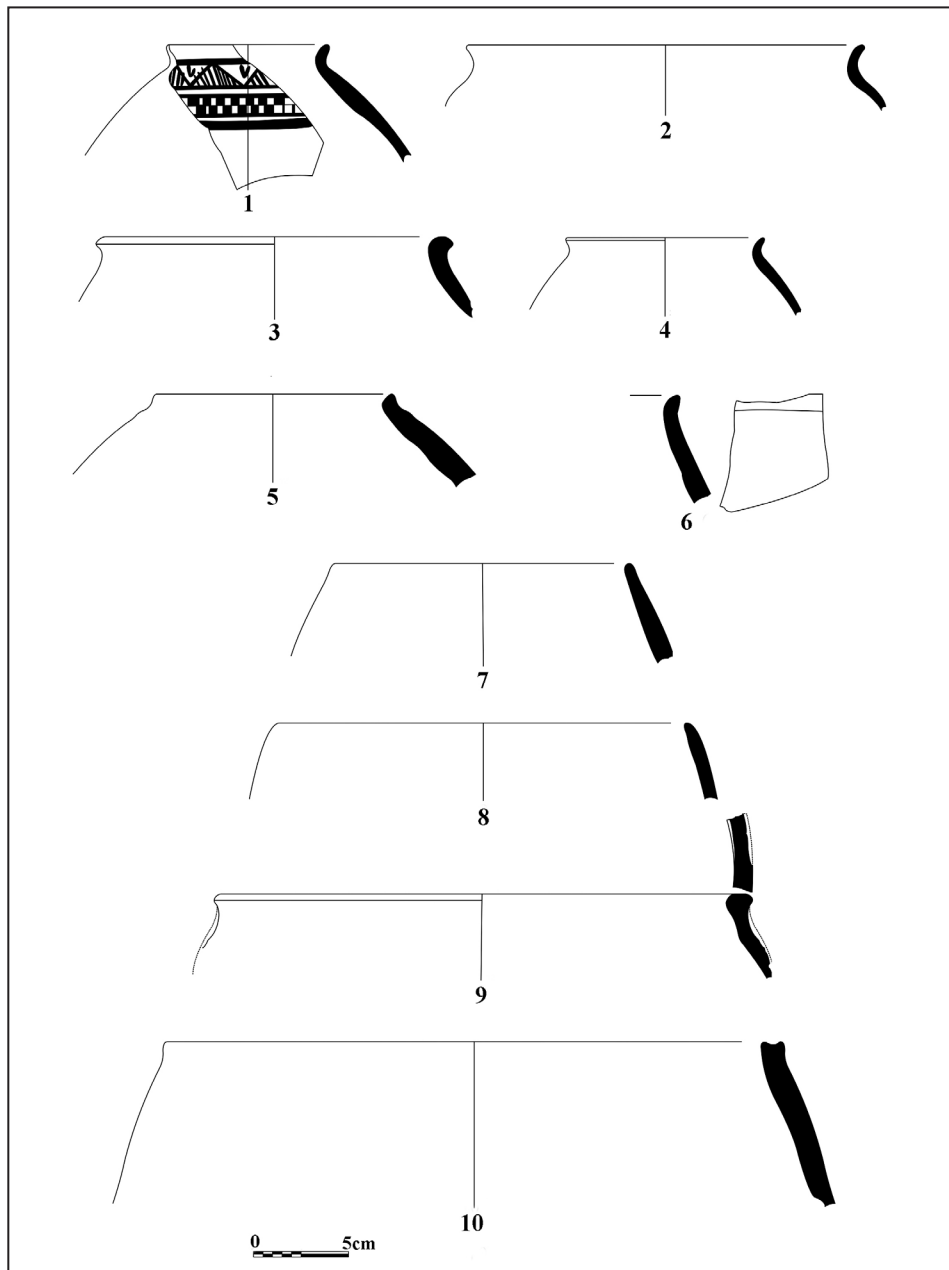


Figure. 11. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS139	1. Handmade; 2. Buff Buff Buff; 3. Sand Vegetal; 4. Fine; 5. Brown Painted	Alizadeh 1992: Fig. 28F Langsdorff & Mc cown 1932: pl. 53:7
2	FS39	1. Handmade; 2. Brown Brown Black; 3. Sand; 4. Fine; 6. Slip red; 7. Slip red	Langsdorff & Mc cown 1932: pl. 19:20
3	FS123	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium	
4	FS178	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Fine; 6. Slip red; 7. Slip red	Langsdorff & Mc cown 1932: pl. 19:16
5	FS23	1. Handmade; 2. Brown Brown Black; 3. Sand Vegetal; 4. coarse	Zagarell 1982: Fig. 18:10
6	FS20	1. Handmade; 2. Buff Buff Buff; 3. Sand Vegetal; 4. Medium	
7	FS130	1. Handmade; 2. Dark brown Dark brown Dark grey; 3. Sand Vegetal; 4. Medium	Weeks <i>et al.</i> 2006a: Fig. 8: TNP 1363
8	FS20	1. Handmade; 2. Cream Cream Cream; 3. Unknown; 4. Medium; 5. Black Painted	Delougaz & Kantor 1996: pl. 176: B Langsdorff & Mc cown 1932: pl. 12:7
9	FS85	1. Handmade; 2. Brown Brown Brown; 3. Fine grit; 4. Medium; 5. Black Painted; 7. Slip brown	
10	FS 123	1. Handmade; 2. Creamy buff Creamy buff Creamy buff; 3. Fine grit Vegetal; 4. Medium	

Table 4. Ceramic Description for Figure. 11

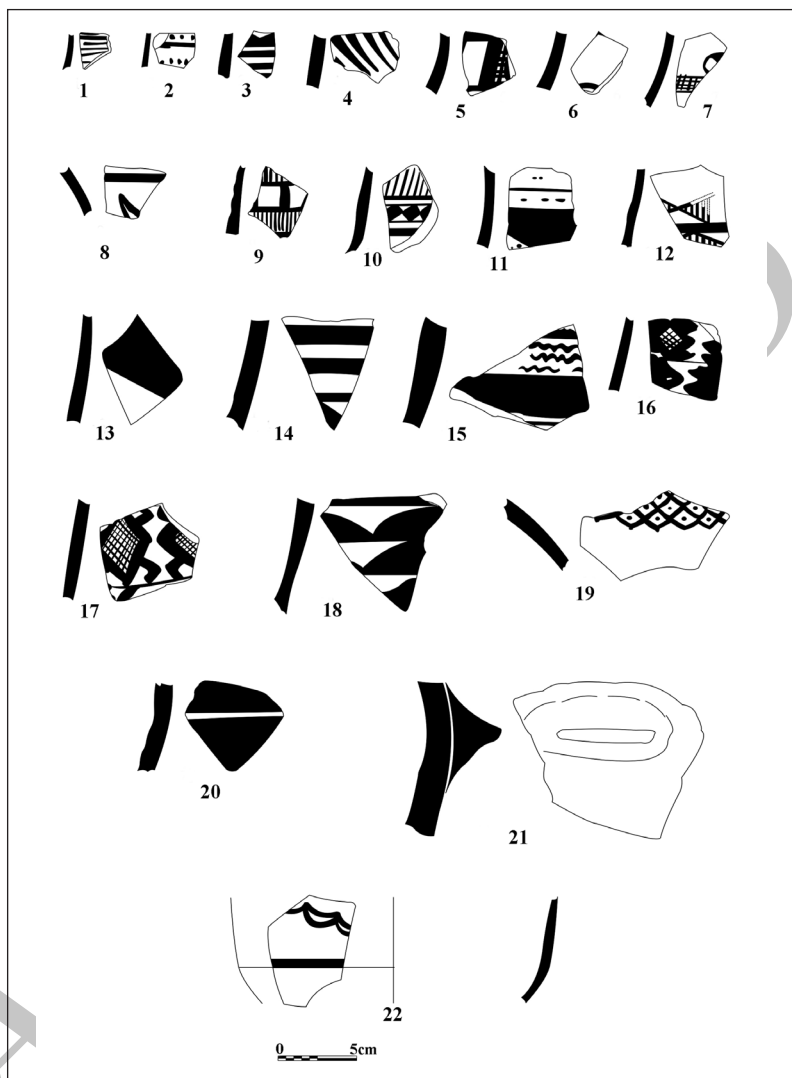


Figure. 12. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Dark Painted; 6. Slip cream; 7. Slip light green	
2	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Dark Painted; 6. Slip cream; 7. Slip buff	Zagarell 1982: fig. 17:9 Delougaz & Kantor 1996: pl. 165E Haerinck & Overlaet 1996: Fig. 48 7
3	FS124	1. Handmade; 2. Orange Orange Orange; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip cream	
4	FS178		
5	FS124	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff; 7. Slip buff	
6	FS200	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip greenish buff; 7. Slip greenish buff	
7	FS20	1. Handmade; 2. Light green Light green Light green; 3. Sand; 4. Medium; 5. Brown Painted; 6. Slip buff; 7. Slip buff	
8	FS120		
9	FS123	1. Handmade; 2. Cream Cream Cream; 3. Sand; 4. Medium; 5. Black Painted	
10	FS123	1. Handmade; 2. Light brown Light brown Light brown; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip cream; 7. Slip cream	Delougaz & Kantor 1996: pl. 169Q Haerinck & Overlaet 1996: Fig. 47:9
11	FS20	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Dark brown Painted; 6. Slip buff; 7. Slip buff	Zagarell 1982: Fig. 19:6
12	FS123	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Fine; 5. Dark brown Painted; 7. Slip cream	Delougaz & Kantor 1996: Fig. XXVIII
13	FS20	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Dark brown Painted; 6. Slip buff; 7. Slip buff	
14	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Dark brown Painted; 6. Slip buff; 7. Slip buff	
15	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Dark brown Painted 6. Slip buff; 7. Slip buff	
16	FS20	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Dark brown Painted; 7. Slip buff	Alizadeh 2006: Fig. 52:11 Zagarell 1982: Fig. 21:1-2
17	FS20	1. Handmade; 2. Light orange Light orange Light orange; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff; 7. Slip buff	Alizadeh 2006: Fig. 52:11 Zagarell 1982: Fig. 21:1-2
18	FS85	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted; 7. Slip creamy buff	
19	FS123	1. Handmade; 2. Cream Cream Cream; 3. Sand Vegetal; 4. Medium; 5. Dark brown Painted; 7. Slip brown	Delougaz & Kantor 1996: pl. 229B-H
20	FS164	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium; 5. Black Painted	Alizadeh 1992: Fig. 24:L Haerinck & Overlaet 1996: Fig. 9:1
21		1. Handmade; 2. Dark brown Dark brown Dark brown; 3. Fin grit Vegetal; 4. Medium	
22	F3139	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand Vegetal; 4. Medium; 5. Black Painted	

Table 5. Ceramic Description for Figure. 12

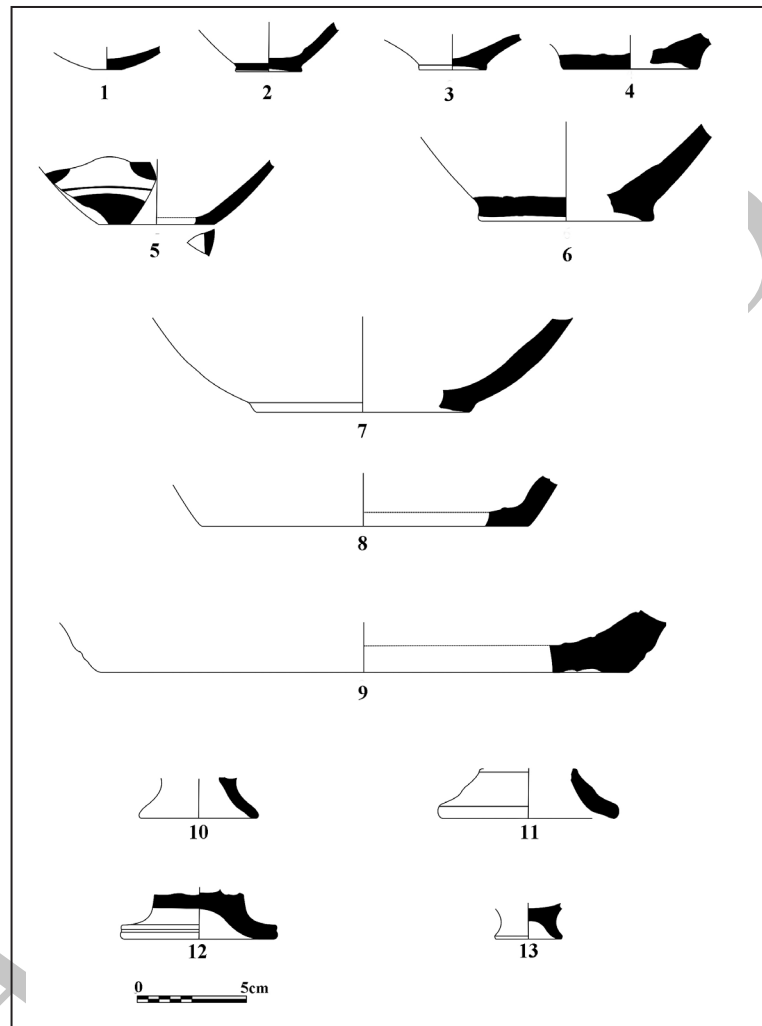


Figure. 13. A selection of the Chalcolithic period pottery

No.	Site	1. Manufacture; 2. Fabric Colour (Ext Int Core.); 3. Inclusion; 4. Finish; 5. Decoration; 6. Interior coating colour. treatment; 7. Exterior coating colour. treatment	Notes/References
1	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Fine	Weeks <i>et al.</i> 2006: Fig. 3.93. TNP 1046
2	FS20	1. Handmade; 2. Light green Light green Light green; 3. Sand Fine Vegetal; 4. Medium; 5. Black Painted	Langsdorff & Mc cown 1932: Pl. 32:8
3	FS124	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Medium	
4	FS178	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand; 4. Fine; 5. Black Painted; 7. Slip cream	Zagarell 1982: Fig. 17:7
5	FS124	1. Handmade; 2. Light green Light green Light green; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff; 7. Slip buff	
6	FS200	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff 7. Slip buff	Zagarell 1982: Fig. 17:7 Weeks <i>et al.</i> 2006: Fig. 3.83. TNP 1341 Zaidi <i>et al.</i> 2006: Fig. 6.9: MSP
7	FS20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Sand Fine Vegetal; 4. Medium; 6. Slip cream; 7. Slip cream	Delougaz & Kantor 1996: pl. 160:O
8	FS120	1. Handmade; 2. Brown Brown Brown; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff; 7. Slip buff	
9	FS123	1. Handmade; 2. Buff Buff Buff; 3. Sand; 4. Medium; 5. Black Painted; 6. Slip buff; 7. Slip buff	
10	FS123	1. Handmade; 2. Orange buff Orange buff Orange buff; 3. Sand Fine Vegetal; 4. Medium	Delougaz & Kantor 1996: pl. 159:S Langsdorff & Mc cown 1932: pl. 11:3; pl. 18:16 Zaidi <i>et al.</i> 2006: Fig. 6.9: MSP 956
11	FS20	1. Handmade; 2. Cream Cream Cream; 3. Sand; 4. Medium	Mc cown 1942: pl. 18:12 Zagarell 1982: Fig. 29:7
12	FS123	1. Handmade; 2. Brown Orange Black; 3. Vegetal Grit; 4. Coarse	Mc cown 1942: pl. 20:7 Zagarell 1982: Fig. 29:7
13	FS 20	1. Handmade; 2. Greenish buff Greenish buff Greenish buff; 3. Medium; 4. Medium; 5. Black Painted	Alizadeh 2008: Fig. 43G

Table 6. Ceramic Description for Figure. 13

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چکیده‌ی مقالات به زبان فارسی

پیرامون باستان‌شناسی رمه‌داری: خاور نزدیک و آنسوی آن

کامیار عبدی

پژوهشگاه علوم انسانی و مطالعات فرهنگی

تاریخ دریافت: ۱۳۹۴/۱/۱۳

تاریخ پذیرش: ۱۳۹۴/۴/۲

خلاصه: نوشتار حاضر با استناد به مشاهدات جغرافیایی، تاریخی و قوم‌نگاری و با استفاده از عواملی نظیر میزان جابه‌جایی، تقسیم کار و نظام اجتماعی، راهکارهای کوچ‌روی قبل از دوره‌ی معاصر را معرفی نموده و در پی آن، نشانه‌های این راهکارهای متفاوت را در زمینه‌هایی نظیر باستان‌شناسی، باستان‌زیست‌شناسی، شیمی در باستان‌شناسی، باستان گیاه‌شناسی، مطالعات تحلیل فضایی و الگوهای استقراری پیگیری می‌کند.

واژگان کلیدی: رمه‌داری، خاور نزدیک، کوچ فصلی، کوچ‌روی، بوم‌شناسی انسانی

اصلی مقاله‌ی حاضر بازشناسی سیستم ثبت و ضبط در تپه زاغه و واکاوی اینکه نظام حسابداری زاغه در چه مرحله‌ای از پیشرفت این سیستم قرار داشته، است. به نظر می‌رسد که براساس شواهد موجود، اشیاء شمارشی / توکن‌های زاغه برای شمارش محصولات کشاورزی و نگهداری احشام کاربرد داشته و این کالانشان‌ها را می‌توان جزو اصلی نظام حسابداری و شمارشی برشمرد.

واژگان کلیدی: ایران، دشت قزوین، نظام حسابداری، نظام شمارشی، اشیاء شمارشی / توکن‌ها، دوره گذار از نوسنگی به مس‌سنگی

ورود پنبه به خاور نزدیک

خاویر آوارز-مون

دانشگاه مک‌کواری

تاریخ دریافت: ۱۳۹۴ / ۲ / ۱۴

تاریخ پذیرش: ۱۳۹۴ / ۳ / ۳۰

خلاصه: در سال ۱۹۸۲ آرامگاهی اشرافی در ارجان در نزدیکی شهر بهبهان امروزی کشف شد. در این آرامگاه تابوتی مفرغی پیدا شد که در آن پارچه‌های پنبه‌ای و پولک‌های طلایی قرار داشت که از وجود پارچه و البسه‌ی اشرافی در این آرامگاه خبر می‌داد که قدمت آنها به واپسین سال‌های حکومت عیلام بازمی‌گشت. هدف اصلی این پژوهش بررسی نقش این کشفیات در زمینه‌ی تاریخ البسه‌ی اشرافی، بویژه شناخت ما در زمینه‌ی تاریخ خاستگاه پنبه و ورود آن به خاور نزدیک است.

واژگان کلیدی: ارجان، پنبه، پولک، البسه، عیلام

جستاری باستان‌شناختی درباره توکن‌های مکشوفه از تپه زاغه، دشت قزوین، ایران

نیلوفر مقیمی

دانشگاه تهران

حسن فاضلی نشلی

دانشگاه تهران

تاریخ دریافت: ۱۳۹۴ / ۳ / ۲

تاریخ پذیرش: ۱۳۹۴ / ۴ / ۱۸

خلاصه: نوشتار حاضر به بررسی چگونگی توسعه نظام ثبت و ضبط اطلاعات مربوط به محصولات در تپه زاغه دشت قزوین خواهد پرداخت. چنین مطالعاتی از آنجا ارزشمند هستند که مراحل اولیه استفاده از سیستم حسابداری و شمارشی را بررسی می‌کنند؛ نظام شمارشی در عصر شهرنشینی و دوران تاریخی به یکی از عوامل اصلی مدیریت مؤسساتی و بروکراسی تبدیل شد. تپه زاغه یکی از محوطه‌های کلیدی هزاره‌ی پنجم پ.م در دشت قزوین است که در آن تعداد بسیار زیادی اشیاء شمارشی در ابعاد و اشکال گوناگون بدست آمده است. این اشیاء شمارشی که تعداد آنها به ۲۳۸ عدد می‌رسد هم از لحاظ گونه‌شناسی و هم از لحاظ بحث‌های نظری قابل مطالعه هستند. هدف

مطالعه و تاریخ‌گذاری قلعه جوشاتو(شاهین‌دژ، آذربایجان غربی): بزرگترین دژ مانایی؟

کاظم ملازاده

دانشگاه بوعلی‌سینا

تاریخ دریافت: ۱۳۹۴ / ۴ / ۱۱

تاریخ پذیرش: ۱۳۹۴ / ۵ / ۱۰

خلاصه: حوضه‌ی رودخانه زربینه‌رود واقع در جنوب دریاچه‌ی ارومیه، به جهت شرایط مناسب زیست‌محیطی از دوره‌ی پیش‌ازتاریخ به بعد مورد توجه گروه‌های مختلف انسانی قرار

فصل به سرپرستی نگارنده بررسی شد. طی این بررسی شمار زیادی محوطه مربوط به دوران پیش از تاریخ شناسایی و ثبت شد که از این میان احتمالاً ۲۸ محوطه در فارس مربوط به دوره مس و سنگ است. همان گونه که با توجه به وضعیت طبیعی منطقه قابل پیش بینی بود، بیشتر محوطه‌ها از نوع پراکندگی سفال بدون ارتفاع محسوس هستند. این محوطه‌ها بر اساس ریخت‌شناسی و مشاهدات امروزی درباره‌ی کوچ‌نشینان منطقه، و نیز شمار اندک یافته‌های سطحی آن‌ها از نوع کوچ‌نشینی هستند. سفال‌های به دست آمده از سطح محوطه‌های فارس به هر سه دوره‌ی مس و سنگ قدیم، میانی و جدید تعلق دارند. دوره‌هایی که بیشترین سفال‌های مربوطه در آن بازه‌ی زمانی قرار دارد، دوره‌ی مس و سنگ میانی است. بیشتر محوطه‌ها مربوط به دوره‌ی مس و سنگ میانی هستند. دوره‌ی مس و سنگ قدیم تعداد محوطه‌ها و جمعیت کمتر و در دوره‌ی مس و سنگ جدید نیز تراکم محوطه‌ها و جمعیت نسبت به مس و سنگ میانی سیر نزولی پیدا می‌کند. مطالعه‌ی سفال‌های دوره‌ی مس و سنگ نشان دهنده‌ی ارتباط و نزدیکی بسیار زیاد سفال منطقه با سفال‌های دوره‌ی مس و سنگ در فارس (با کون الف و ب)، خوزستان (شوشان میانه و جدید) و تا حدودی فلات مرکزی ایران است. ولی به نظر می‌رسد سفال مس و سنگ فارس شباهت بیشتر با فرهنگ‌های پیش از تاریخ فارس دارد. به نظر می‌آید در این دوره ارتباط برون منطقه‌ای بین فارس با دشت خوزستان و فارس زیاد بوده است. در واقع افزایش تجارت و روابط منطقه‌ای و فرامنطقه‌ای یکی از ویژگی‌های بارز دوره‌ی مس و سنگ است. این روند گرچه در دوره‌های قبل نیز وجود داشته است ولی در این دوره با توجه به وجود شواهد و مدارک فراوان افزایش چشمگیری یافته است. سفال‌های به دست آمده طی بررسی که مربوط به این دوره بوده‌اند شباهت زیادی با سفال‌های خوزستان و فارس دارند.

واژگان کلیدی: مس و سنگ، فارس، سفال، کوچ‌نشینی

تداوم و تغییر در اواخر دوره‌ی باستان ایران: نگاهی

اقتصادی از ساسانیان

خداداد رضاخانی

دانشگاه برلین

تاریخ دریافت: ۱۳۹۳ / ۱۱ / ۹

تاریخ پذیرش: ۱۳۹۴ / ۱ / ۱۹

خلاصه: اقتصاد دوره‌ی باستان اکثراً در چهارچوب تجارت و بازرگانی مطالعه شده و کمتر به جنبه «تولیدی» اقتصاد، که

گرفته که شاهد آن حضور تعداد زیاد محوطه‌های باستانی است. متأسفانه این منطقه به صورت علمی بررسی و مطالعه نشده و محوطه‌های بسیاری ناشناخته باقی مانده است. یکی از این محوطه‌ها قلعه جوشاتو، واقع در ۱۲ کیلومتری شمال شرقی شهرستان شاهین دژ و جنوب استان آذربایجان غربی است که به دلیل موقعیت استراتژیک، ابعاد و ساختار معماری فوق‌العاده و منحصر به فرد، از اهمیت ویژه‌ای برخوردار است. مهمترین اثر معماری قلعه جوشاتو، یک دیوار دفاعی به طول باقی مانده‌ی ۶۷ متر است که با تخته‌سنگ‌های بزرگ و مهارت فوق‌العاده در ضلع شرقی محوطه ساخته شده که در نوع خود منحصر به فرد است. بقایای معماری مشهود محوطه معرف دو سبک متفاوت معماری و احتمالاً دو دوره‌ی ساخت و ساز است. با این حال اکثریت سفالینه‌های مطالعه شده مربوط به سنت سفال نخودی ساده‌ی عصر آهن III و بویژه سنتی است که در محوطه‌های مانایی دیده می‌شود. با توجه به سنت سفالگری و داده‌های معماری و نیز موقعیت محوطه در مرکز قلمرو پادشاهی مانا، قلعه جوشاتو به احتمال بسیار یکی از استحکامات مهم و مرکزی مانایی بوده که در اوایل قرن ۸ ق.م ساخته شده است. البته این احتمال وجود دارد که دیوار دفاعی اصلی جوشاتو توسط اورارتویی‌ها ساخته شده و بعد از عقب‌نشینی آنها، مانایی‌ها با بازسازی قلعه آن را مورد استفاده قرار داده‌اند. پژوهش حاضر نتیجه بررسی سطحی و مطالعه میدانی نویسنده در طی تابستان ۱۳۹۱ و ۱۳۹۲ است.

واژگان کلیدی: قلعه جوشاتو، مانا، معماری عصر آهن III، شمال غرب ایران

دوره‌ی مس و سنگ در کوهستان‌های بختیاری: محوطه‌های نویافته‌ی فارس

علیرضا خسروزاده

دانشگاه شهرکرد

تاریخ دریافت: ۱۳۹۳ / ۱۲ / ۱۴

تاریخ پذیرش: ۱۳۹۴ / ۴ / ۲۵

خلاصه: فارس در بخش میانی کوه‌های زاگرس (مرکز استان چهارمحال و بختیاری) واقع شده و رشته کوه‌های نسبتاً مرتفع با چندین قله‌ی بالای ۳۰۰۰ متر ارتفاع بخش‌های قابل توجهی از چشم‌انداز طبیعی این منطقه را تشکیل می‌دهند. این چشم‌انداز عبارت از یک دشت نسبتاً کوچک و چندین دره‌ی کوچک منتهی به این دشت است. این منطقه از کم‌شناخته‌شده‌ترین مناطق فلات ایران است. در سال ۱۳۸۶ این منطقه طی یک

بلکه تنها در قالب مظاهر تبیین یافته و به صورت قراردادهای هنری غیر قابل تغییر پدیدار گشته است؛ به گونه‌ای که تعیین هویت افراد بر مبنای تاج‌های شخصی، سرپوش‌های خاص، جامگان، نشان‌های ویژه، نحوه‌ی جایگیری، نوع فیگور و تبلور در بازنمایی امکان‌پذیر می‌گردد. از رهگذر شواهد نشانه‌شناختی، شخصیت‌شناسی پاپک از خاندان پرآوازه‌ی قارن، در حکم بیدخش و نائب‌السلطنه‌ی حکومت در زمان پادشاهی بهرام دوم، بهرام سوم، نرسه و هرمزد دوم صورت پذیرفته است. بر خلاف نظر برخی محققان مبنی بر یکی دانستن نشان بیدخشی و آنچه که نشان دودمان قارن است، تصویرشناسی تطبیقی تفاوت فاحشی را میان آن دو آشکار می‌سازد. نشان دودمان قارن، غنچه‌ای در حال شکفتن بر یک پایه‌ی افقی است و نشان منصب بیدخشی غنچه‌ای در میان دو برگ و فاقد پایه‌ی افقی است. نگارکند صخره‌ای هرمزد دوم در نقش رستم فارس بهترین شاهد بر این مدعا و تأکیدی بر وضوح تفاوت میان کاربرد دوگانه‌ی غنچه‌های مورد بحث است؛ به گونه‌ای که هر دو نشان به وضوح بر کلاهخود دشمن از پای درآمده‌ی هرمزد دوم نقش بسته است. از سوی دیگر، اصالت خانوادگی بیدخش پاپک، اندیشه‌ی رایج انحصار مقام بیدخشی به خاندان سلطنتی را ابطال می‌سازد.

واژگان کلیدی: ساسانی، بیدخش، پاپک، دودمان قارن، شواهد نشانه‌شناختی.

در همه دوران‌ها اهمیت بیشتری داشته، پرداخته شده است. به علاوه، تقسیم مصنوعی دوره‌های تاریخی بر مبنای تغییرات سیاسی، از جمله برداشت تاریخ‌نگارانه از گسست در تاریخ ایران بعد از فتوحات اسلام، باعث عدم توانایی بسیاری از محققین در بررسی عواملی نظیر تغییرات اقتصادی در طولانی مدت شده است. مقاله حاضر با در نظر گرفتن جنبه تولیدی اقتصاد ساسانی، سعی در تثبیت چند اصل در مطالعه تاریخ اقتصاد اواخر دوره ساسانی و اوایل دوره اسلامی دارد و با مقایسه دو منطقه‌ی خوزستان و تخارستان، به نکاتی در مورد این اصول اشاره می‌کند.

واژگان کلیدی: ساسانیان، اسلام، اقتصاد، کشاورزی، پساباستان، خوزستان، تخارستان

نشانه‌های دودمان قارن و منصب بیدخشی

سرور خراشادی

دانشگاه تربیت مدرس

تاریخ دریافت: ۱۳۹۴ / ۱ / ۲۴

تاریخ پذیرش: ۱۳۹۴ / ۴ / ۱۲

خلاصه: هنرمند عصر ساسانی در خلق آثار یادمانی این دوران، پیرو مکتب رئالیسم بوده است؛ هرچند این واقع‌گرایی منجر به بازنمایی افراد با ویژگی‌های کاملاً شخصی و چهره‌پردازی دقیق نگشته و اصولاً شبیه‌سازی مد نظر خالق این آثار نبوده است؛