Prehistoric Evidence of Sonqor Koliyaie Plain in Central Zagros

Mahmood Heydarian[1*] and Hamid Reza Ghorbani[2]

[1]*Department of Archaeology, Faculty of Humanities, Shahrekord University.*

[2]*Department of Archaeology, Faculty of Art, University of Birjand.*

(Received: 28 /03 /2015; Received in Revised form: 25 /06 /2015; Accepted: 03/11 /2015)

Sonqor Koliyaie is a mountainous plain in central Zagros that has attracted the attention of human societies because of its appropriate environmental characteristics from long ago. Generally, the findings obtained from systematic archaeological surveys show that human settlements have been established in this area from Middle Paleolithic period through contemporary period. Three seasons of survey in this area have shown that among 301 discovered archeological sites, many belonged to Paleolithic, Epipaleolithic, Neolithic, Chalcolithic, Bronze, and Iron Age. The present study attempts to study the prevalent prehistoric cultures and traditions of the region since the beginning up to the first millennium BC. The research method is descriptive-analytic and the materials are cultural artifacts such as pottery and stone tools. The obtained results prove that although the number or size of the settlements has decreased during some periods, the common pottery traditions such as Dalma, Seh Gabi, Godin VII, VI, IV, III, and II in West of Iran show the presence of a continuous sequence of cultural settlements from the start of the human settlement in the valleys. Regarding the distribution of the sites, it should be noted that the distribution and size of the discovered settlement patterns have been different indifferent periods and have been influenced by various environmental factors such as height, water access, pasture, and communicative roads.

Keywords: *Prehistoric, Central Zagros, Sonqor Koliyaie, pottery traditions*

Introduction

The Koliyaie mountainous plains pottery traditions are located in the northwest of Kermanshah Province at a height of 1700 meters above sea level. The city is limited from north and northwest with Kurdistan Province, from east with Hamedan Province and from south with Kangavar and Sahne cities (Fig. 1). Morphologically, this region is located in a mountainous area and is enclosed by high mountains. In the northern and central areas, the patches slant from west to northwest and from east to southeast, but the southern and southwestern areas follow the main slant trend of Zagros patches from northwest to southeast. The most important heights in this area are Dalakhany, Hasan Helkan, Mian kouh (Madiankouh), Sinavand, Kamar Qotb, Dolat Abad, Bohlul, etc. Agricultural lands are located in Sonqor and Gavrud plains and have an area of about 131000 hectares. The watercourses that mostly across the formations and outcrops in northern areas and go through the southern regions join the streams that direct the surface flows from the East to the West. They also join the streams in western parts of the plain and form Gavrud and Jamishan rivers in western and southwestern areas. Sonqor has a cold and mountainous climate and is colder in heights than the slopes and plains. According to the Köppen Climate Classification System, this area has a semi-arid cold steppe climate with cold winters and temperate summers with temperatures that do not surpass -28°C and 39°C,respectively (Heydarian 2013; Heydarian *et al.* 2013).

The archaeological activities in this area date back to 1978 when Masoumi discovered and named sixteen archeological sites in his survey and excavated some of them as well (Masoumi 1978: 190). Mouradi also conducted a rescue excavation in Tepe Jenani in 2001, which is another instance of the archaeological works performed in this area. He discovered this place as a settlement left from the Ilkhanid Period and believed that the materials traced back to the Parthian period (Mouradi, personal communication 2003).A research program entitled "An introduction to prehistoric pottery

*Corresponding author e-mail address: heydarianm@lit.sku.ac.ir

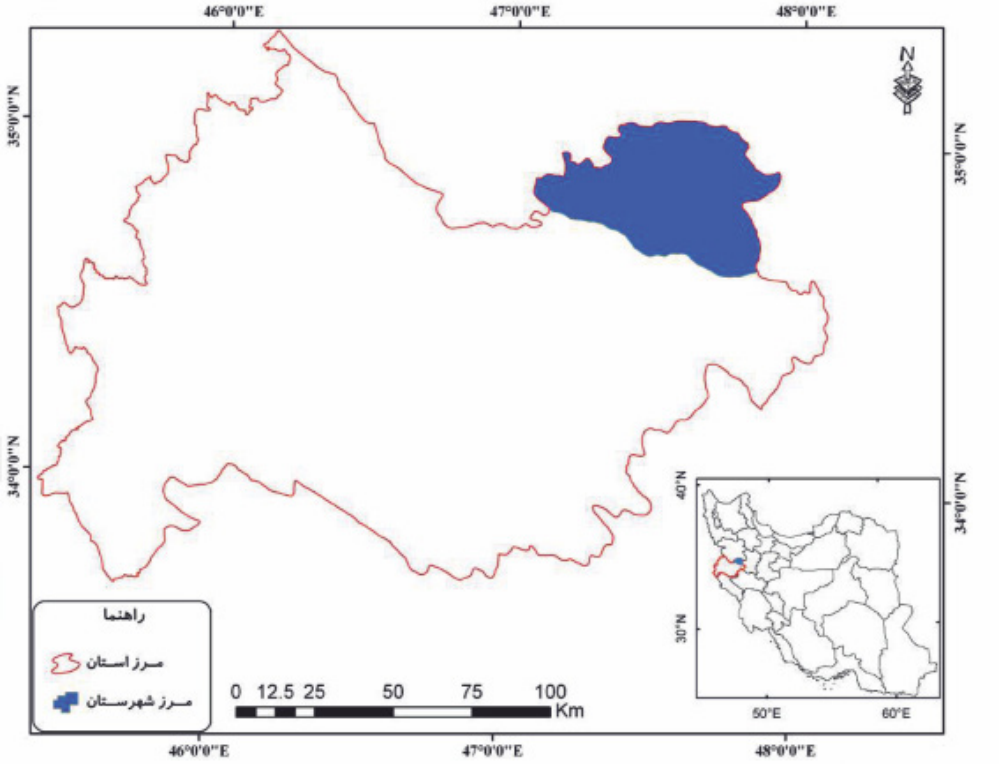


Fig. 1: *The position of the region in west of Iran*

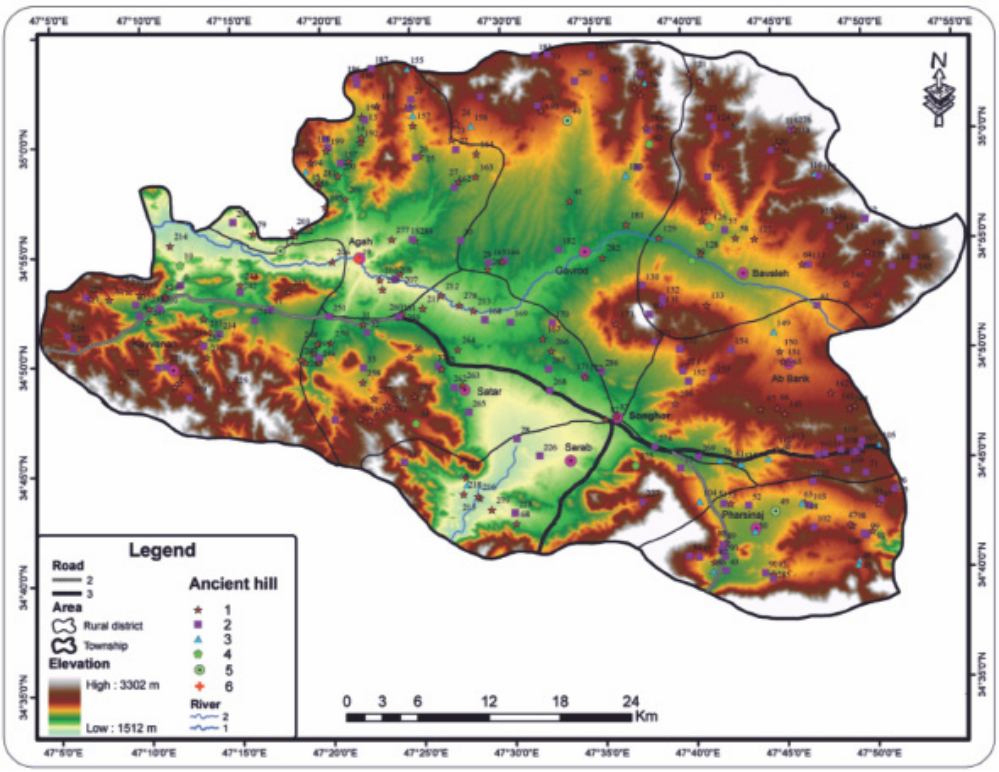


Fig. 2: *The distribution map of the discovered archaeological sites*

in Sonqor Plain, a systematic survey of Tepe Khodaei" is another archaeological work in this area that reviewed and studied twenty prehistoric sites discovered in the summer of 2004 besides a systematic survey of Tepe Khodaei (Heydarian 2004 and 2006). Heydarian (2008) also conducted the second season of Sonqor review and survey in which 203 archaeological sites were discovered from different periods (Fig. 2). In a study of Sonqor caves and rock shelters in August 2009, 32 caves and rock shelters were discovered, among which13 had cultural materials (Beshkani 2009; Beshkani *et al.* 2009 and 2012). In addition, the survey also discovered two open-air sites. Out of these 13 cases, a cave belonging to Middle Paleolithic Period, called Bohlul cave, was reported to have been inhabitedin Late Paleolithic and Epipaleolithic Periods (Beshkani *et al.* 2009: 44).

This study attempts to explain the pottery tradition from Neolithic Period to the end of the first millennium B.C., develop the archaeological map of the region, and record the relative chronology of the area through comparing the pottery and architectural structures with similar sites of the adjacent areas and two basic questions and hypotheses were thus posed. The first question regards the prehistoric pottery traditions and cultures of the area. Considering the surveys, it seems that all common pottery traditions in western areas of Iran like Dalma, Seh Gabi, and Godin VII, VI, IV, III, and II are visible in the discovered sites. The second question considers the cultural relationship between the region and other parts of Zagros. Considering the obtained cultural data, including pottery and stone tools, it seems that not only deep cultural links were established between central Zagros region and the main areas on both sides of Great Khorasan Road (the main highway connecting lowlands of Mesopotamia to Iranian Plateau and beyond), but the region also had cultural communications with northwestern areas and the eastern Mesopotamian region.

Research methods and materials

The research method is descriptive-analytic. This study used a combination of field, library, and surface data obtained from the surveyed area to study the Prehistoric Periods in the region as well as their continuity and discontinuity up to the first millennium BC. The study was done through systematic archaeological surveying and recording the geographical coordinates of all sites using geographical positioning system (GPS). It should be noted that the materials of the present study include cultural surface data such as pottery and stone tools randomly collected from the surface of sites. Dating of the respective sites was performed according to typology and comparative study of the superficially collected materials. After gathering and classifying the pottery information and their analysis as well as comparison of samples with similar materials found at other sites, the stratification can be presented for the collected materials. Then, the regional settlement patterns in each of the prehistoric periods were evaluated. According to environmental conditions of the region, the distribution area of each period was drawn and finally the most important factors in the formation of this distribution were determined.

Finding

In the first and second seasons of the survey, 83 and 203 sites were discovered, respectively and in the study of caves and shelters in the area, 15 sites were detected. Totally, in the three seasons of survey, 301 sites were identified, which belonged to Middle Paleolithic period to later Islamic periods. The sites were dated based on the typology and comparative studies on surface materials. The collected archaeological materials were categorized in four broad groups: prehistoric, protohistoric, historic, and Islamic . Out of 301 sites, thirteen sites belonged to Paleolithic Period, ten sites to Neolithic and Early Chalcolithic, eight sites to Middle Chalcolithic, seventeen sites to Late Chalcolithic, ten sites to Early Bronze, fifteen sites belonged to Middle and Late Bronze, and forty-six sites to the Iron Age. Because the present study only examines the prehistoric period, after summarizing, compiling the obtained pottery data, analyzing, and comparing them with similar cases in the central Zagros sites and other areas, the sites can be classified as presented below.

Paleolithic Period

"In survey of the caves and rock shelters in this plain, 32 caves and rock shelters were discovered

and cultural distribution were observed on the slopes of the entrance area of thirteen sites. After studying these sites, it was found that the remains of the Stone Age belonged to three sites of Jamishan 3, Golavij 3, and Bohlul and in some areas, there was no representative sample. The surface findings of the unrepresentative sites mostly included simple flake or prehistoric pottery. During the survey, two open-air sites were discovered" (Beshkani 2009; Beshkani *et al.* 2012). Based on the studies on the surface remains of sites with chronological cultural materials (FIG. 3: left), "it can be said that although there is evidence from the Middle and Late Paleolithic Periods in this area, no distribution of stone artifacts has been discovered belonging to the Early Paleolithic Period" (Beshkani *et al.* 2012). Due to the mountainous nature of the region, these sites are scattered throughout the region heights. As the sites distribution map shows, these sites on the verge of Jamishan River are distributed in the heights of Dalakhany Mountain at southern part of the region (FIG. 3: right). It seems that this situation is related to raw stone resources or feral species in the region. "Other products include a scraper, which was obtained from surface of the sites such as Bohlul and Golavij 3. According to the survey studies conducted so far, stone artifacts obtained from sites such as Golavij 3 rock shelter and Bohlul cave have been removed, and no core has been found in the collection. This may indicate that these products were made elsewhere and transferred to these settlements afterwards" (Beshkani *et al.* 2012: 48), or perhaps these sites were hunting stations.

Neolithic and Early Chalcolithic Period

The Neolithic evidence discovered in sites 49, 63, 81, 155, 190, 193, 199, 218, 226, and 261 was in the form of pottery and stone artifacts (FIG. 4: right). The debris attributable to Neolithic Period was obtained from surface of four sites (49, 193, 218 and 261). The sites 218 and 261, which seem to belong to the Early Neolithic settlements, are perfectly flattened and used as agricultural lands. A number of scattered stone artifacts including the core, blade, and bladelet were obtained from these sites surface (FIG. 4: left). It seems that farming has made changes to terraces as well as river basins with erosion and sedimentation that covered and annihilated Neolithic settlements. Certainly, with regard to water resources and ecological situation of the region, more sites are expected to belong to this period. In the other sites in which potteries were discovered, most of the pottery pieces have no special decoration and smoothing. All these pieces are relatively soft, hand-made and do not seem not to have been baked enough, often with the core still smoky, gray, and dark. Their color paste is buff and orange and they have a very high straw or chaff temper content with individual long fibers.

Middle Chalcolithic period

Uncommon types of Dalma painted and impressed potteries have been recorded from eight sites (49, 63, 81, 155, 190, 199, 226 and 261) (Fig. 5: right). There are seventeen sites in the Late Period

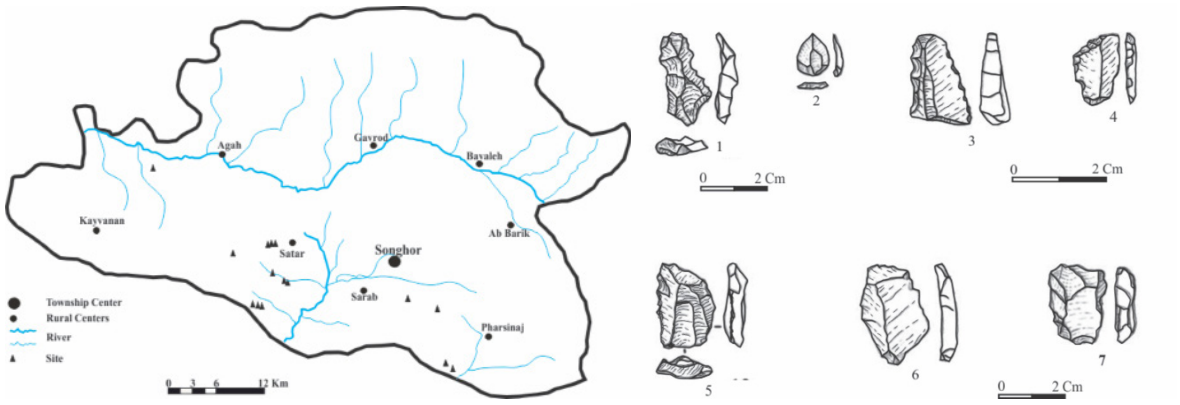


Fig. 3: *Right) the distribution map of the Paleolithic sites, Left) stone artifacts: 1) Bladelet (Bohlul), 2) Convergent Scraper (Bohlul), 3) Disc of denticulate Blade (Golavij 3), 4) Disc of denticulate Bladelet (Golavij 3), 5) Convergent Scraper (Bohlul), 6) Bladelet (Bohlul), and 7) Thumbnail Scraper (Bohlul) (based on Beshkani, 2009; Beshkani et al., 2009; 2012)*

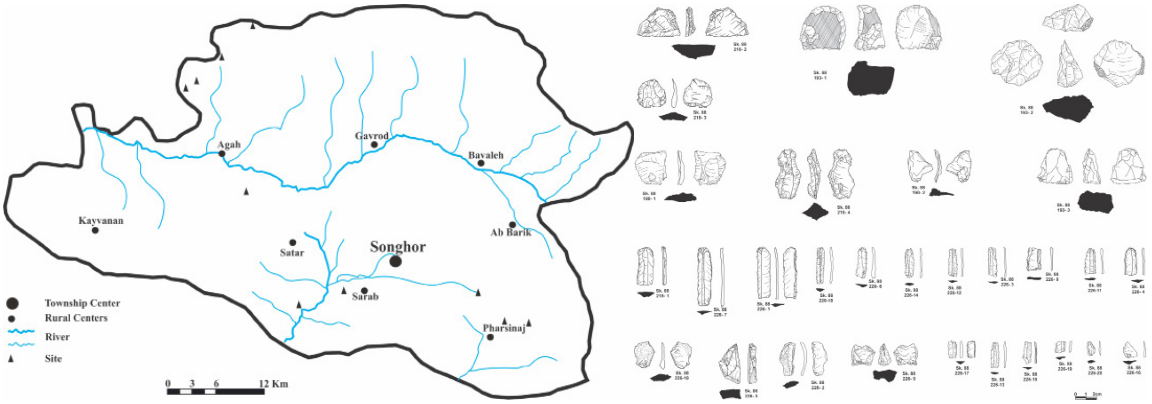


Fig. 4: *Right) the distribution map of the Neolithic and Early Chalcolithic sites, Left) stone artifacts*

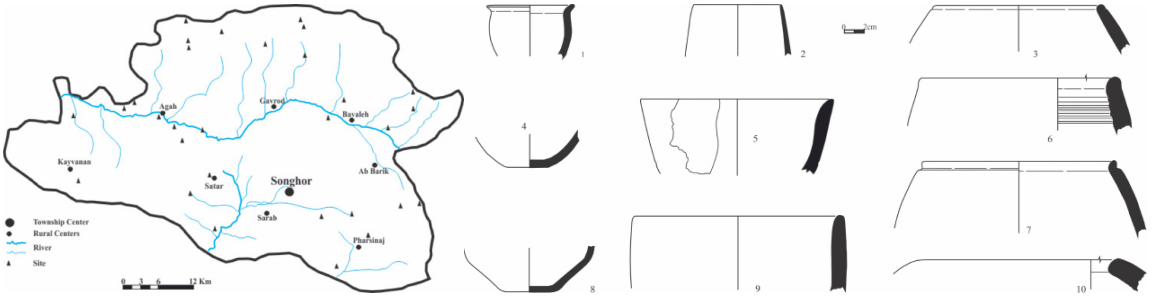


Fig. 5: *Right) the distribution map of the Middle and Late Chalcolithic sites, Left) plain potteries*

among which the sites 49, 155 and 261 had a sign of settlement sequence from Middle to Late Period. Plain (Fig. 5: left) and painted (Fig. 6) potteries are all hand-made and lack of baking converted them from oxidized cores to cores, which still have grey centers. Some of the plain wares have the grit temper and most of them have chaff temper. Some of these vessels appear to have been slipped, which range in color from dark purple through red to buff. The forms and motifs used on the vessels resemble the vessels discovered in Dalma and Pish-i-kuh sites in Luristan (Hamlin, 1975; Henrickson, 1985; Young, 1969 and 1974; Goff, 1971).

The majority of the painted potteries are painted only on the outer surface of the vessel and fall into three classes: Monochrome, Bichrome, and Streaky. The color of the paint ranges from deep brown to red. The paint can be applied either to the untreated surface of the vessel over a cream slip. All of these wares are chaff tempered with coarse straw temper and for the most part belong to the finer end of the temper spectrum. Monochrome ware, which show a single color on their surfaces have a matte surface as well as thick red or creamy slip. Their outer surfaces are decorated with geometric motifs, open and vertical shapes and hemispherical vessels. No naturalistic motifs have been attested for this collection. These types are all comparable with vessels from Seh Gabi(Levine and Young, 1986: 22, Fig. 4; Young and Levine, 1974: 65, Fig. 9), Dalma (Hamlin, 1975: 121, Fig. 4 and 10), Hajji Firuz (Dyson and Young, 1960: 22, Fig., I: 1; Voigt, 1983: 275, Fig. 18), and Pish-i-kuh in Luristan (Goff, 1971: 138, Fig. 3, 9 and 10).

Most of the vessels are monochrome, but small a percentage of them is bichrome. The colors of the bichrome include red and dark purple or black on a cream slip. Sample 14 in Figure6, which is taken from Tepe Khodaei with sand inclusions, is beige and lacks baking, which is comparable with bichrome painted pottery in the lower layers of Seh Gabi Tepe (Levine and Young, 1986: 22, FIG. 4: 18.1-18.3). Streaky potteries show dense decorations with distinct flecks without actual polished patterns. The vessels mostly resemble colored Dalma's Monochrome (Fig. 6: right, 11 and 16, left, 4).

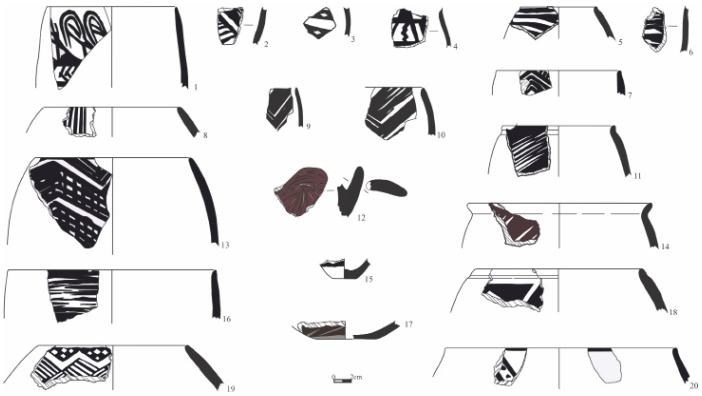


Fig: 6- *Dalma painted wares of the Middle Chalcolithic*

Impressed surfaces of Dalma potteries (surface manipulated wares) have been treated in a number of ways. Fingertips, fingernails, a pointed object (a sharp stick or bone awl), a comb, a blunt ended instrument or broken reed, and a small blade have been used to impress or puncture the surface of the vessel. Some of these hand-made wares are plain with thin slip of clay over them. These potteries (Fig. 7: right) are comparable with the similar ones in Dalma (Hamlin, 1975: 125, Fig. 8: c), She Gabi (Young, 1974: 67, Fig. 10: 2, 3, 8-10), Pish-i-kuh in Luristan (Goff, 1971: 138, Fig. 3: 32, 33, 35, 36, 45) and Siah Bid Tepe (Levine and Young, 1986: 31, Fig. 13). The handle of potteries in samples 3-7(Fig.7: Left) is similar to Seh Gabiplain wares (Young, 1974: 71, Fig. 12: 3) and Pish-i-kuh in Luristan (Goff, 1971: 138, Fig. 3: 28 , 26) and samples 11, 15, 19, and 23 are also similar to Dalma plain trays in Seh Gabi (Young, 1974: 67, Fig. 10: 13-15), Pish-i-kuh plain wares (Goff, 1971: 138, Fig. 3: 16) and Dalma Tepe plain wares (Hamlin, 1975: 126, Fig. 9: j, k).Sample 11 (Fig.7: left) is very similar to the Dalma Ubaid Painted (DUP)wares in She Gabi Bin terms of form and motif (Levine and Young, 1986: 25, Fig.7: 1). In terms of stability and kind of decoration, sample eight (Fig. 7: left)is like the Black on Buff (BOB) wares in Siah Bid Early phase (Levine and Young, 1986: 30, Fig.12: 21).

Late Chalcolithic period

From this period, 17 sites(86, 105, 108, 115, 138, 155, 156, 157, 159, 175, 202, 209, 212, 218, 219, 261 and 262) have been discovered and recorded (Fig.5 and 7: left). Large thick buff wares, thickly slipped buff wares, wares slipped with thick red and tempered with chaff and fine wares are all common potteries in this period. Of course, it must be mentioned that a type of pottery is composed of plant fibers, chopped chaff or vegetables with sand inclusions and thick unsmoothed walls. This type has been baked in a low temperature, so it is often dark and smoked. Another type has plant temper with shorter fibers, which is usually baked at right temperature with even cores. The wares often include hemispherical bowls with edges turned in and hemispherical bowls with vertical walls, which are mainly low to medium in depth. This type of

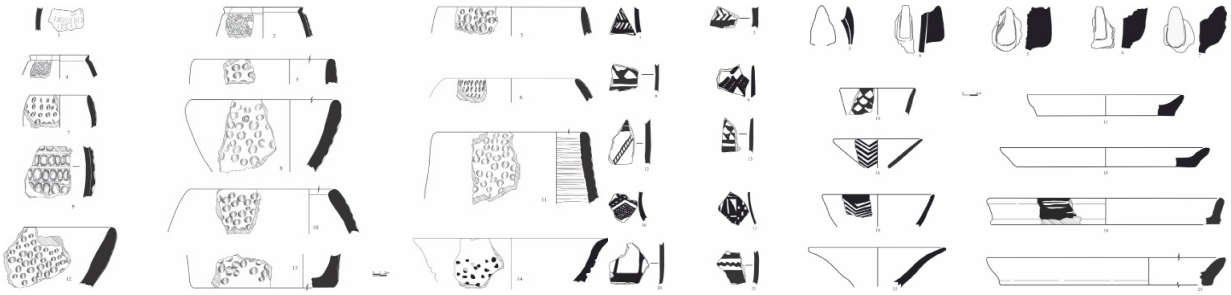


Fig. 7: *Right) Dalma impressed wares of the Middle Chalcolithic, Left) She Gabi (2-6, 11, 15, 19, and 23) and Late Chalcolithic wares*

pottery is very similar to the ones in Godin Tepe and Seh Gabi (Young, 1969: 67; Young and Levin: 1974; Levin and Hamlin: 1972; Levine and Young, 1988: 33).

Early Bronze Age, Yanik (Godin IV)

At the end of the Chalcolithic period in Kangavar Valley and Mahidasht Plain and generally in most parts of western Iran, evidence of the Late Uruk Period has been found, during which people moved from the lowlands (e.g. Susa, Mesopotamia) to the higher sites. Although several archaeological evidence has been found from Godin V layer excavations in Kangavar, no cultural material from Uruk has been found in Sonqor. Perhaps the mountainous conditions of the area and its distance from major roads of Iran-Mesopotamia caused this area not to be attractive for the Uruk. The data related to the Early Bronze Age, i.e. Godin IV, has been discovered in ten sites (10, 19, 34, 40, 42, 49, 59, 61, 63, and 76) (Fig.8: right). This era is a new cultural phenomenon for the whole central Zagros. Smoothed buff handmade ware is the common pottery of this era, most of which in the form of cooking utensils with and without handles. Most of the wares in this period are gray-black and usually highly burnished. They are fine and coarse in shape with incision and carving decorations, which are apparently and usually filled with white paste. They are mostly decorated with bands and geometric carved lines (triangles, straight lines, and squares) often with deep incision or graving. Zigzags and various arrangements of triangles are the most common motifs that can be decorated either on inside or outside surface (more often on inside) and almost never decorated on both surfaces. Vessel walls are thick to medium thick. The carved decorations on the samples in Fig.8: left and some types of vessels are quite similar with Godin IV carvings in Kangavar (Young, 1974: 85; 1969: 73, Fig. 11; 75), Geoy Tepe K (Burton Brown, 1951: 45, Fig.14) and Yanik (Burney, 1961: 1, LXXIII. n. 49) in Early Bronze Age.

Middle and Late Bronze Age (Godin III)

Fifteen sites (17, 19, 45, 46, 50, 59, 69, 76, 95, 102, 126, 151, 194, 262, and 275) have collections from Godin III Period (Fig.9: right). The pottery of this period in Sonqor is usually wheel made, though many vessels are handmade. It can be divided based on fabric into Heavy Coarse, Coarse, and Common wares. Heavy coarse wares are generally characterized by a very coarse grit, are fairly well baked, relatively hard, have uneven fracture with buff and pink-cream slipped in color. Coarse wares are characterized by a fabric tempered with medium to small grit, are well baked with medium soft to hard uneven fracture and are buff, red-slipped, and cream slipped in color. Common wares are characterized by medium fine-to-fine grit temper, are well baked, hard with even fracture and are buff, red-slipped, double slipped, and cream slipped in color. The most important characteristics of this period include its angled containers, medium and large bowls, and hemispherical bowls comparable with similar types in Kangavar (Henrickson, 1986). Painted decoration, which is found on Buff, Red-slipped, and Cream-slipped varieties of Coarse and Common Ware and on the Double-slipped variety of Common Ware, predominantly appears in geometric patterns such as dots, circles, triangles, straight lines, zigzags, diagonal lines, hatching,

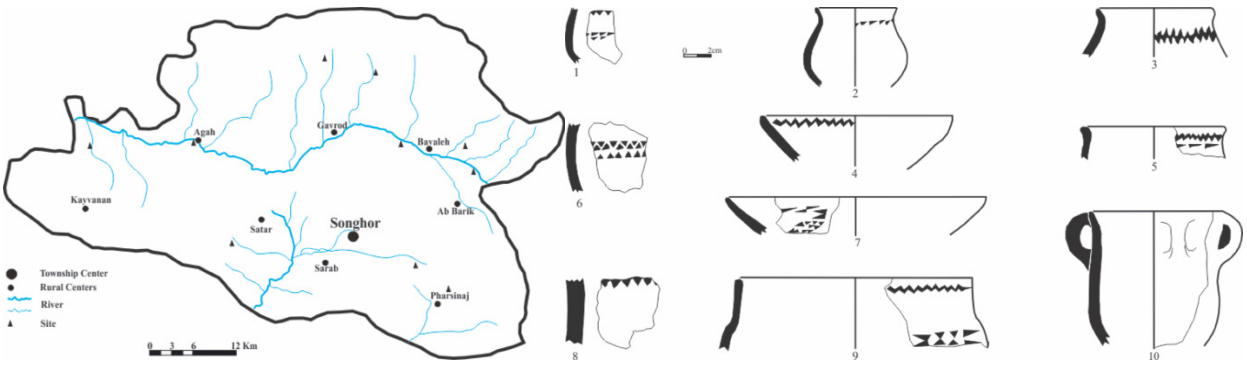


Fig. 8: *Right) the distribution map of the Early Bronze sites, Left) Yanik (Godin IV) potteries*

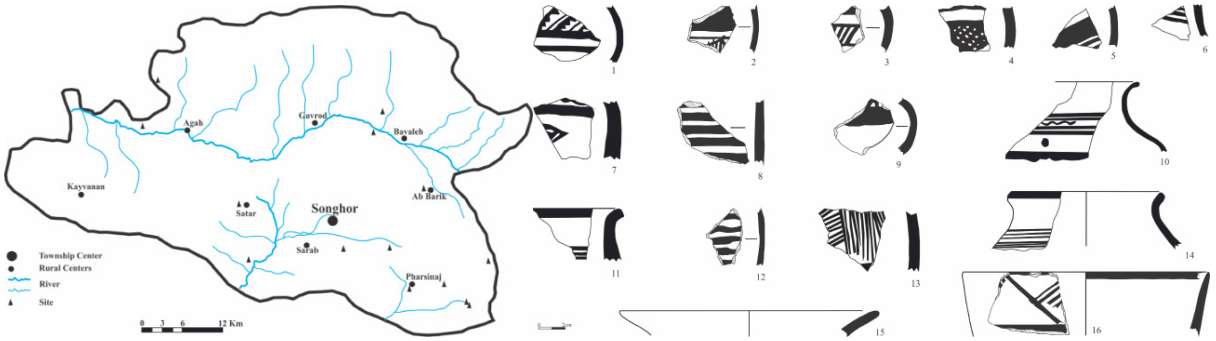


Fig. 9: *Right) the distribution map of the Middle and Late Bronze sites, Left) Godin III potteries*

etc. The paint itself ranges in color from a very light pink through pinkish-red and dark brown to black. Examples 10, 11 and 14 (Fig. 9: left) are like Godin III angled wares in Kangavar in terms of form and motifs (Young, 1969: 83, Fig, 18: 1; 1974: 99, 101, 103, 105, 107) and their motifs are the same as the motifs used in Luristan (Goff, 1971: 122. Fig. 10, nos. 12, 13 and 14). These potteries are appropriately baked and a combination of minerals is used as their temper.

Iron Age (Godin II)

Iron Age pottery was found in 46 sites (Fig.10: right) and the evidence from Iron Age I was only discovered in sites 22 and 49. The evidence from Iron Age II was also discovered in twelve sites (10, 17, 19, 22, 30, 45, 49, 50, 59, 69, 106, and 221). The most frequent distribution belongs to Iron Age III evidence, which are scattered in 41 sites. However, in Iron Age III, the number of settlements has increased, but no claims can be made about the Iron Age in this area based on the survey data. Certainly, the sites 10, 22, 30, 49, 50, 59, 106, and 221, which have the evidence of two consecutive terms are worth being studied to determine the status of Iron Age in the region. However, the studies conducted in these sites have shown that there was gray, red, and buff potteries in Iron Age I as well as gray Elamite or Kassites button-based potteries in Iron Age II. In Iron Age III, there were buff potteries covered with diluted slip and red potteries of Godin II (Fig.10: left). These wares are always at least smoothed, usually well burnished even in some cases almost similar to a polish. Hasanlu V (Dyson, 1960: 129, Young, 1965: Fig.8) affected the tradition of pottery in this area during the Iron Age I. During Iron Age II, the pottery was under the influence of Dinkha Tepe pottery (Mascarella, 1974; Rubinson, 1991: 373-394) and in Iron Age III, Godin II, Baba Jan I and II, and Tepe Nush-i Janhad an influence on it. In terms of form and production technique, sample 4 is like the potteries recovered from class IV in Dinkha Tepe (Hamlin, 1974: 133, no. 4.5a) and Godin II wares (Young, 1974: 125-133). In terms of rim, body and stagnation, samples 3, 6, 9, and

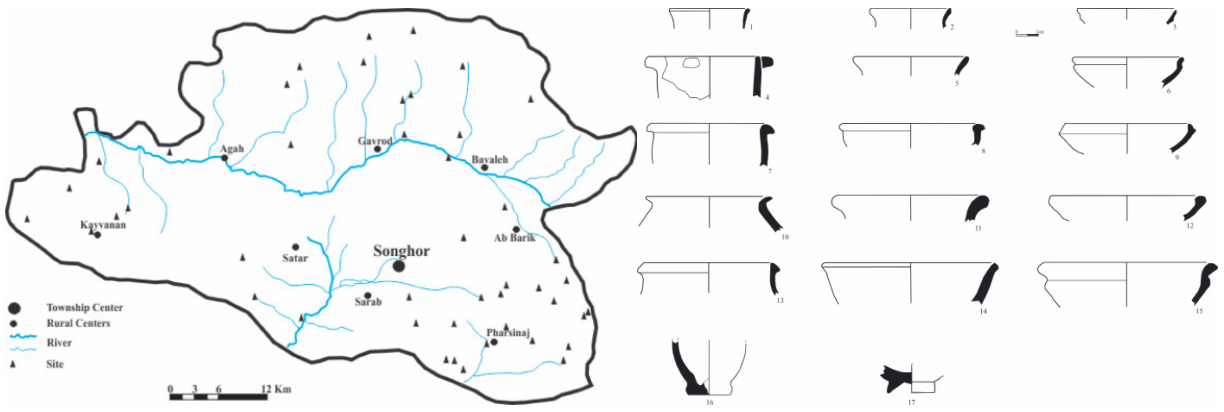


Fig. 10: *Right) the distribution map of the Iron Age sites, Left) Iron Age potteries*

15 are similar to potteries from the Iron Age III in south of Urmia Lake as well as Hasanlu III (Young, 1965: 56, Fig.2, no 6, 10; 60, Fig. 4, no. 7), Ziwiye (Young, 1965: 58, Fig. 3, nos. 9, 11) and Godin II (Young, 1969: 119, 123). Samples 11 and 8 have a close resemblance with samples from class IV in Dinkha (Hamlin, 1974: 138, nos. 3, 9) and are as stable as Baba Jan I and II (Goff, 1968: 122, Fig. 10, nos. 12, 13, 14). Samples 10 and 13 are comparable with many samples from Godin II (Young, 1969: 121).

Discussion and conclusion

The findings obtained from the systematic archaeological survey show that human settlements have been established in this area since the Middle Paleolithic Period. Because of the mountainous nature of the region, the rivers flowed in valleys, which forced the human communities to live in the valleys. The change of economic conditions from herding and gardening to farming and the evolution of technology made the humans choose the plains as their settlement from the historical and Islamic periods onward. From 301 discovered sites, 119 belong to the Prehistoric Period. Thirteen sites belonging to Paleolithic Period were mostly found in the southern part of Sonqor Plain and according to the analysis of their stone tools, all the sites except for Bohlul, Jamishan, and Golavij were locations for slaughter of livestock during the Middle and Late Paleolithic as well as Epipaleolithic periods. Ten Neolithic and Early Chalcolithic sites were distributed along the whole area except for its northeastern part. According to the water resources and ecological situation of the region, perhaps more sites had been there belonging to this period, which have been damaged or covered under newer depositions due to agricultural activities, erosion, and sedimentation. Due to simple shape of the discovered potteries, their comparison and chronological recording were not possible. Eight sites belonging to the Middle Chalcolithic period indicate the close relationship between this area and Urmia Lake and Dalma culture. Sonqor was also in relationship with neighboring areas at the same time. A study of the pottery of this period shows a close relationship between this area and Godin sites as well as Ubaid II and Seh Gabi Periods in Kangavar and Pish-i-kuh Plain in Luristan. The interconnection of this area is obvious with Mahidasht in Kermanshah, including the ancient sites of Chogha Maran and Siah Bid in the Middle Chalcolithic Period. Sonqor sites had a close relationship with the new phase of Siah Bid in Mahidasht and Pisdeli culture around Urmia Lake in the late Chalcolithic Period as well as neighboring sites in Kangavar, Nahavand, and Malayer. Giyan Vc pottery is similar to the pottery evidence in this period. Plenty of wares with thick red slip and burnished slip belonging to the Middle Chalcolithic period have been discovered in the area, which show the interconnection of Sonqor with Hossein Abad and Cheshmeh Noush cultures in Kangavar Valley during3600-3200 BC.

Perhaps the mountainous conditions of the area and its distance from the major roads of Iran-Mesopotamia (the Great Khorasan Road) caused this area not to be attractive during the Uruk Period. Nevertheless, more than half of the potteries discovered in ten sites belong to the cultures of Early Bronze Age. By comparing these potteries, it was concluded that Sonqor Early-Bronze-Age pottery are mostly similar to Godin IV pottery in Kangavar, works of the K Period in Geoy Tepe and the Early Bronze Age in Yanik Tepe at the eastern side of Urmia Lake as well as the pottery works from Republic of Azerbaijan. The similarities are evident both in form and decoration of the wares.

Fifteen cultural sites' data belonging to Middle and Late Bronze Age caused an expectation of a closer relationship between Sonqor and Kangavar Valley, Luristan and Urmia Lake basin at the end of third millennium and beginning of the second millennium B.C. Samples of pottery of this period are similar to the angled Godin III wares in Kangavar, VIb class in Haftavan Tepe, IV class in Dinkha Tepe as well as motifs used in Luristan in terms of form and zigzag motifs inside the box. Through a comparative approach, the forty-six discovered Iron Age settlements were compared with Late Bronze Age and Iron Age sites in west and northwest of Iran. The potteries of this period are like the potteries from DinkhaIV, Godin II, Haftavan VIb, Baba Jan I and II, Giyan III, Iron Age III in the south of Urmia Lake as well as Hasanlu III, Ziwiye and Godin II in terms of rim, body, and stagnation.

References

Beshkani, Amir.
2009 *"A Preliminary Repot of Caves and Rock shelters in Songhor County,"* Submitted by the Research Center of Iranian Cultural Heritage, Handicrafts and Tourism Organization. Kermanshah (Unpublished).

Beshkani, Amir.; Maryam Dehqan; Mojgan Jayez & Yadolah Heydari.
2009 "Bohlul Cave; a Paleolithic Settlement in Songhor Koliyaie Plain," *Bastanpazhoh*, 18: 24-33.

Beshkani, Amir.; Mojgan Jayez; Maryam Dehqan; Mana Jami Alahmadi & Yadolah Heydari.
2012 "An Introduction to Caves and Rock shelters of Sonqor, Kermanshah Province, Iran," *Journal of Archaeological Study*, 4, Issue 1, Summer and Autumn 2012, P-P: 33-58.

Burney, Charles.
1961 "Excavations at Yanik Tepe, North-West Iran," *Iraq*, 23: 138-153.

Burton Brown, T.
1951 *"Excavation in Azerbaijan, Iran,"* 1948. London: Thon Murray.

Dyson, Robert H. Jr.
1999 "Triangle-Festoon Ware Reconsidered," *Iranica Antiqua,* 34: 115-144.

Dyson, Robert H. Jr. & T. Cuyler Young, Jr.
1960 "The Solduz Valley, Iran: Pisdeli Tepe", *Antiquity* 34: 19-27.

Goff, Caler.
1968b "Luristan in the First Half of the First Millennium B.C. A Preliminary Report on the First Seasons Excavation at Baba Jan and Associated Surveys in the Eastern Pish-i-Kuh," *Iran*, 6: 105-134.

1971 "Luristan before the Iron Age," *Iran*, 9: 131-151.

Hamlin, Carol.
1974 "The Early Second Millennium Ceramic Assemblage of Dinkha Tepe," *Iran*, 12: 125-153.

1975 "Dalma Tepe," *Iran*, 13: 111-128.

Henrickson, Elizabeth F.
1985 "The Early Development of Pastoralism in the Central Zagros Highlands (Luristan)," *Iranica Antiqua* 20: 1-42.

Henrickson, Robert C.
1986 "A Regional Perspective on Godin III: Cultural Development in Central Western Iran", *Iran*, 24: 1-55.

Heydarian, Mahmood.
2004 *"Final Report of Archaeological Survey in Songhor Koliyaie Plain, (first season),"* Submitted by the Research Center of Iranian Cultural Heritage, Handicrafts and Tourism Organization. Kermanshah (Unpublished).

2006 *."Prehistoric Pottery of Songhor Intermountain Plain, Systematic Survey at Tepe Khodaei,"* Submitted in Partial Fulfillment of the Requirements for the degree of Arts (M.A) In Archaeology-prehistoric, Faculty of Humanities, Department of Archaeology. Tarbiat Modares University (Unpublished).

2009 *"Final Report of Archaeological Survey in Songhor Koliyaie Plain (second season),"* Submitted by the Research Center of Iranian Cultural Heritage, Handicrafts and Tourism Organization. Kermanshah (Unpublished).

2014 "Analyzing the Role of Natural Factors in Spatial Distribution of Prehistoric Sites of Songhor Plain," *Pazhohesh-ha-ye Bastanshenasi Iran* 3, Number 4, winter 2014. Page: 139-152.

Heydarian, Mahmood; Alireza Khosrowzadeh; Majid Sarikhani; & Aman-Allah Fathnia.
2013 "An Assessment on the Spatial-Temporal Patterns of Songhor's Archaeological Sites in GIS," *Physical Geography Research*

Quarterly 45, Issue 3, autumn 2013, Page 1-124.

Khatib Shahidi, Hamid; Mahmood Heydarian & Hasan Basafa.
2012 *"Prehistoric Cultures of the Songhor Plain," Archaeological Reports* (8), Proceedings of the international Symposium in Iranian Archaeology: Western Region, Research Center of Iranian Cultural Heritage, Handicrafts and Tourism Organization Iranian Center for Archaeological Research.

Levine, Louis D. & Carol Hamlin.
1974 "The Godin Project: Seh Gabi," *Iran* 12: 211-213.

Levine, Louis D. & T. Cuyler. Young, Jr.
1987 "A Summary of The Ceramic Assemblages of the Central Western Zagros form the Middle Neolithic to the Late Third Millennium B.C.," *Colleques International in Prehistoric de la Mesopotamia,* 15-54, Paris.

Mascarella, O. W.
1974 "The Iron Age at Dinkha Tepe, Iran," *The Metropolitan Museum Journal* 9: 35-76.

Masoumi, Gholamreza.
1978 *History of the Science of Archaeology in Iran,* Tehran, the Organization for Researching and Composing University Textbooks in the Humanities (SAMT).

Mousavi Kouhpar, S. Mahdi & Mahmood Heydarian.
2008 "A Comprehensive Archaeological survey of Sonqor Koliyaei," *Journal of the faculty of letters and humanities- the University of Tehran* 59, No. 185-4 Spring. Page 193-214.

Rubinson, Karen S.
1991 "A Mid-Second Millennium Tomb at Dinkha Tepe," *American Journal of Archaeology*, 95 (3): 373-395.

Voigt, Mary M.
1983 *Hajji Firuz Tepe, Iran: The Neolithic settlement*, The University Museum, University of Pennsylvania.

Voigt, Mary M. & Robert H. Dyson, Jr.
1992 The Chronology of Iran, Ca. 8000-2000 B.C. in *Chronologies in Old World Archaeology*, Edited by R. W. Erich, 122-178. Chicago. university of Chicago Press.

Young, Jr. T.Cuyler.
1965 "A Comparative Ceramic Chronology for Western Iran, 1500-500 B.C.,"*Iran* 3: 53-83.

1966 "Survey in western Iran" 1961 *Journal of Near Eastern studies* 25(A): 228-239.

1969 *"Excavations at Godin Tepe, First Progress Report,"* Royal Ontario Museum.

1974 "An Archaeological Survey of the Kangavar Valley," *proceedings of the IIIRD Annual symposium on Archaeological research in Iran*: 23-30 Tehran-Iran.

Young, Jr. T.Cuyler. & Louis D. Levine.
1974 *Excavations of the Godin Project: Second Program Report*. Royal Ontario Museum.