PERSICA ANTIQUA

New-Found Elamite Sites in South Lorestan, Iran (South Basin of Kashkan River)

Author(s): Aziz Allahpoor, Yaghoub Mohamadifar, Kazem Mollazadeh

Source: Persica Antiqua, July 2025, VOL. 5, NO. 9, 5-26.

Published by: Tissapherness Archaeological Research Group

Stable URL: https://doi.org/10.22034/pa.2024.454341.1095

Ministry of Science Research & Technology
Tissaphernes Archaeological Research Group
www.tissaphernesArc.ac.ir

The International Journal of Ancient Iranian Studies
July 2025, VOL. 5, NO. 9, 5-26. OPEN ACCESS
https://doi.org/10.22034/pa.2024.454341.1095

PERSICA ANTIQUA

RESEARCH ARTICLE

New-Found Elamite Sites in South Lorestan, Iran (South Basin of Kashkan River)

Aziz Allahpoor[1], Yaghoub Mohamadifar[2], Kazem Mollazadeh[3]

Abstract

The southern part of Lorestan province in Pishkuh is one of the key areas for understanding the cultural periods of Southwest Iran. This area is located near one of the government centers of Elam (Susa in the south) and on two communication routes from south to north and west to east. Therefore, this area can be one of the essential communication areas between the Susa and the Mesopotamian lowlands, the mountainous region of Zagros, and the central plateau of Iran. However, due to the focus of Elam scholars on the two state centers of Susa and Anshan, there is no comprehensive picture of the state of settlements in this region during the Elam period. Based on this, this research aimed to determine and analyze the situation of the Elamite settlements in the area by conducting a systematic archaeological survey in 2016. As a result, 31 sites belonging to the Elamite period were identified. This research showed that most of the Elamite sites were formed in the intermountainous valleys and the slopes of mounds. Most of them have a chronological sequence, and in terms of morphology, they show evidence of Elamite nomadic settlements in this region.

Keywords: Archaeological Survey; Elamite Period; Nomadic Settlements; Southern Basin of the Kashkan River.

[1] PhD Student of Archaeology, Bu-Ali Sina University, Hamedan, Iran (Corresponding Author) allahpoor_aziz@yahoo.com
[2] Professor of Archaeology, Bu-Ali Sina University, Hamedan, Iran mohamadifar@basu.ac.ir
[2] Associate Professor of Archaeology, Bu-Ali Sina University, Hamedan, Iran mollazad@yahoo.com
Article info: Received: 26 April 2024 | Accepted: 9 September 2024 | Published: 1 July 2025
Citation: Allahpoor, Aziz, Mohamadifar, Yaghoub, Mollazadeh, Kazem. (2025). New-Found Elamite Sites in South Lorestan, Iran (South Basin of Kashkan River). *Persica Antiqua*, Vol. 5 (9), 5-26.
https://doi.org/10.22034/pa.2024.454341.1095

Introduction

The geographical scope of Elam has always been a subject of controversy. Although, in general, almost all of the southwestern areas of Iran are considered part of the Elam, its scope has not yet been clearly defined. In the southern part of Lorestan, despite its unique location at the southernmost end of the Zagros Mountain Chain and its proximity to the Elamite governmental center, no serious studies have been conducted to identify the evidence of Elamite settlements. The geographical location of the Zagros Mountain Range and the lack of suitable land for agriculture, and, on the contrary, rich pastures and forests, have provided appropriate conditions for living a nomadic lifestyle (Young, 1972). This geographical area, with its unique environmental features —high mountains and intramountainous plains, abundant water resources, and favorable pastures— has provided suitable conditions for the settlement of both nomadic and sedentary communities. The current survey, conducted to identify Elamite sites and remains, provides important information that can open a new horizon for Elam scholars. Archaeological evidence of this issue can be observed in the relatively abundant distribution of Elamite settlements in southern Lorestan in the southern catchment basin of the Kashkan River, which indicates explicitly the expansion of the Elamites' influence into the Zagros inland. Given its location alongside one of the Elamite government centers, the probability of the existence of cultural influences and similarities in the region is very high. Meanwhile, the role of nomadic communities in forming these potential connections and the process of cultural influence in the Khuzestan region cannot be ignored.

The Objectives, Method, and Significance of Research

When examining written and archaeological data, researchers and archaeologists employ specialized study methods due to the distinct nature of these two types of data. The inconsistency between written data and archaeological data is a significant problem in archaeological research during the historical period, particularly in studies of the Elamite period (Niknami and Rafiei Alavi, 2009: 199 and 211). The lack of specialized information on the historical geography of Elam in southern Lorestan was an incentive to conduct the present archaeological survey of this area. The most important questions brought up in this study are:

What is the evidence for the effective presence of human societies of the Elamite era in the region (south Lorestan)?

How is the quality and quantity of the evidence of the Elamite period in this geographic area?

This research aims to know the situation of Elamite settlements in the south of Lorestan. Considering the lack of comprehensive and independent research about the Elamites in this region, it was necessary to visit and examine the archaeological evidence of the study area. Therefore, this area was subjected to a systematic archaeological survey. Before the fieldwork, an attempt was made to assess the overall status of the area through satellite images and aerial photographs, so that the overall

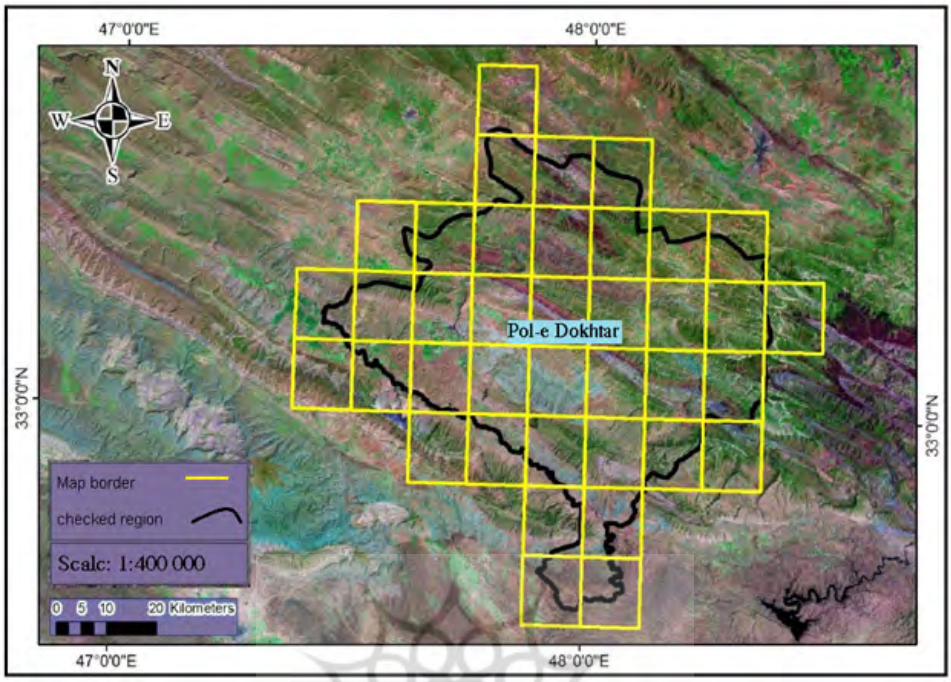

Fig. 1. Scope and Extent of the Study Area

strategy of the survey could be organized. Accordingly, the environmental factors of the region, such as uneven lands, water sources (rivers and wetlands), pastures, and mountainsides, which are apt for the settlement of nomads, were identified. To meet this purpose, the study area was divided into sections: Intermountainous plains, river margins, low-lying mountainsides near numerous wetlands, and foothill areas between plains and highlands (Fig. 1). During the intensive survey and study, local information of the local people was also used to increase the precision in the survey and maximally identify the remains. To sample the movable remains, especially pottery samples from the surface of the sites, the surfaces of the sites, which were less than 5000 m^2 with two intersecting axes in four main directions, were divided into four sections. Besides, larger sites with four intersecting axes in four main and subsidiary directions were divided into eight sections. Attempts were made to collect several representative pottery samples from each section. The ceramics of these sections were then gathered next to the central point of the site for classification and initial typology. In the following, one piece and in some cases two or more pieces of pottery were selected from each type for drawing and typological comparison, and other fragments were returned to their original place. Application of this method, in addition to preventing disorganization of the morphology of the natural distribution of pottery on the surface of ancient sites, provided sufficient samples for typological examination and comparison.

The study area is 1086 km². Given the status of the Elamite civilization in Iranian archaeology, identifying and examining its evidence in the vicinity of the important Elamite hub of Khuzestan is of high priority. To this end, the introduction of the new-found archaeological Elamite evidence in southern Lorestan is one of the most important features of this research.

Literature Review

The Lorestan region has been less scientifically studied than neighboring areas, such as Khuzestan, but it has mostly been the focus of antique-seeking activities. Very little work has been done in this area so far; hence, it is impossible to depict a relative landscape of the region's conditions during various periods based on the previous studies. The first archaeologist to visit Lorestan was Jacques De Morgan, who conducted surveys at several points in the area (Motamedi, 1986: 31). Louis Vandenberghe, from Ghent University in Belgium, conducted 15 field studies in the Poshtkuh area (Vandenberghe, 1970: 104). Vandenberghe's activities were primarily carried out in the area of present-day Ilam province, and the obtained information cannot be generalized to southern Lorestan (Motamedi, 1986: 31). Schmidt conducted photography and research in Holeylan, Romashkan, Kuh Mahale, Sikan, Tarhan, and Pay-i Pol (Pol-i Dokhtar). Aurel Stein and Erich F. Schmidt's studies, known as the Holmes Expedition (Schmidt *et al.*, 1989), were among the most regular and accurate excavations carried out in the region (Norouz-zadeh Chegini, 1993). In 1968, an English team led by Claire Goff Meade conducted some excavations in Lorestan. His survey path almost coincided with the eastern Miankuh until he reached the city of Pol-i Dokhtar, which he referred to under the name of Bala Gereyveh. This survey has been the only scientific activity conducted in Pol-i Dokhtar (Goff, 1968). A survey season in Pol-i Dokhtar was performed in 2006 by Ali Akbar Vahdati (2006). An investigation of the Chalcolithic and Bronze Age settlements in Pol-i Dokhtar City in Lorestan was done for a master's thesis (Rezaei, 2009). The systematic survey of Qala Bardi 2 in Pol-i Dokhtar was also the subject of an academic thesis (Khadem, 2018). These are some of the archaeological studies conducted in this area. As already mentioned, no comprehensive and independent study has been conducted on the status of the Elamite settlements in this area, and this research specifically addresses this issue.

Geographical Location and Environmental Characteristics

The study area is the southern catchment basin of the Kashkan River in the southernmost county of Lorestan province, which ends in Ilam province from the west and to Khuzestan province from the south (Fig. 2). The western Mian Kuh Mountain range encompasses its eastern part. Its northern part is surrounded by the Mohleh mountain range, belonging to Pol-i Dokhtar City. The natural features in this part are the mountains and several small intermountainous plains in valleys and mounds. This strategic location has made the area a transition zone between the northern plains of Khuzestan and the southern mountain slopes of the Central

Fig. 2. Map of Iran and Lorestan Province, Pol-i Dokhtar, Geographical Location of the Study Area
(Adapted by *Persica Antiqua* from a Map from Wikimedia Commons under a Creative Commons Licence CC BY-SA 4.0)

Zagros, which is of great importance for archaeological studies in Southwest Iran. The Mahleh mountain range in the north and the Besyari, Reyteh, and Kabirkouh mountain ranges in the south have surrounded this area like walls that stretch from east to west. There is only one narrow canyon to cross the Mahleh mountain range towards the north (the mountains), which is today considered the northern entrance to Pol-i Dokhtar City and connects Pol-i Dokhtar to Khorramabad and Hamadan. The ancient bridge of Koroudat (Karoudokhtar, Pol-i Dokhtar) is located in this canyon. Its main building is probably a Sasanian monument, restored or rebuilt in the fourth century AH (Karimi, 1950: 34). A short distance south of Pol-i Dokhtar, there are two important canyons (Teng-i Fani and Tang-i Leilam) that are the only way to cross the southern wall-like mountains. These passages are immediately visible after crossing the natural passages of the Khuzestan Plain. This part of the hydrology network is very complex and prosperous. Kashkan River is one of the most important and plentiful branches that joins the Seymareh River in the southwest of Pol-i Dokhtar, in a place called Kal-i Sefid, and creates the Karkheh River (Haghighi *et al.*, 2015: 129). Other features of this region include the numerous wetlands, which are highly effective in shaping and establishing vegetation and animal species. Some of these ponds are seasonal, and others, such as Tang-i Fani and the triple ponds of Valiasr village, are permanent. Although these wetlands are less widely used by farmers and rural sedentary communities, due to their remoteness from arable land, they have always been of interest to pastoral nomadic communities.

As stated above, this environment provides conditions that can accommodate large populations of farmers and ranchers. On the other hand, it is situated at the junction between

Lorestan and Khuzestan, and can play a crucial role in establishing various relationships.

Evidence of the Elamite Settlements

Despite extensive studies on the Elam realm, located in Khuzestan and Fars provinces, no comprehensive study has been conducted in southern Lorestan to date. To this end, obtaining evidence indicating that there are Elamite settlements in the region to clarify the extent of the Elamite realm is among the archaeological requirements of the Elam region. In a recent study, a significant number of Elamite sites (31 sites) were identified that could play a key role in clarifying the status of the historical geography of Elam in this area. Most of these sites have a chronological sequence and also contain the remains of the Elamite period, as well as those of other periods. In contrast, some of the identified sites relate only to the Elamite period, i.e., they are single-period sites. It is noteworthy that previous studies have rarely pointed to the sites and remains of the Elamite period. All the identified Elamite settlements are located in the central part of Pol-i Dokhtar town and the southern catchment basin of the Kashkan River. The geographical situation of the study area has a direct role in the distribution of the identified Elamite settlements. What is evident about the location of these settlements is that they are situated in places that are now the route of today's nomads. Settlements belonging only to nomadic communities are now home to the herdsmen who enter the region every year. The study of the identified settlements illustrates the role and importance of the region's ecosystem. Environmentally, these settlements have been formed under completely different conditions, divided into two groups, where water resources, suitable land for agriculture, and pastures suitable for herding have played a significant role in their development.

Group One: Out of 31 identified sites with Elamite evidence, 18 sites were formed in places that are only apt to pastoral nomadic communities. There is no trace of land suitable for agricultural activities around these sites, and access to numerous linking routes has not been possible for them, but instead, the highly favorable pastures existing in the area have provided perfect conditions for herding activities. In addition to these factors, close access to water resources such as permanent wetlands and rivers has provided an appropriate context for migrant communities to settle seasonally in the region in different periods. Evidence of this can be found in the cultural sequence of the identified sites, which contain traces of prehistoric, historical, and Islamic periods (Table 1). The most prominent site of this group is Tepe Qala Bardi 2. The site is located 5 km northeast of the Gori Balmak Basin near the village of Valiasr in Pol-i Dokhtar County. Due to its location near the region's important passageways (Tang-i Fani and Tang-i Leilam) and key water resources, such as wetlands, it can be argued that this place has always attracted nomadic communities. The cultural sequence of the site supports this. Heavy rains have eroded the upper parts of the mounds, and smuggling excavations have also pulled out the fragmented remains of stone architecture from the soil of this site. The architectural evidence of the

Table 1. The Identified Elamite Settlements (Group 1)

Row	Name	Type	Location	Cultural Periods	Area	Type of Findings	Height (m.a.s.l)
1	Gouri Siah 1	Site	Pol-i Dokhtar, Tang-i Fani	Early, Middle Elam, Sasanian, Parthian, Islamic	1.5 ha	Pottery	590 m
2	Gouri Siah 2	Site	Pol-i Dokhtar, Tang-i Fani	Middle Elam, Sasanian, Parthian, Islamic	1 ha	Pottery, stone architecture	608 m
3	Gouri Kaboud 1	Site	Pol-i Dokhtar, Tang-i Fani	Bronze Age, Early, Middle Elam, Iron Age, Sasanian, Islamic	1 ha	Pottery	556 m
4	Gouri Kaboud 2	Site	Pol-i Dokhtar, Tang-i Fani	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	559 m
5	Gorg-i Koshteh 1	Site	Pol-i Dokhtar, Tang-i Fani	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	593 m
6	Gorg-i Koshteh 2	Site	Pol-i Dokhtar, Tang-i Fani	Early, Middle Elam, Sasanian, Parthian	1 ha	Pottery	588 m
7	Chashm Shahr	Site	Pol-i Dokhtar, Tang-i Fani	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	510 m
8	Shah Hosseini	Site	Pol-i Dokhtar, Tang-i Fani	Early, Middle, Elam, Sasanian	0.3 ha	Pottery	587 m
9	Rahband 1	Site	Pol-i Dokhtar, Cham Mehr	Middle Elam, Parthian, Islamic	0.4 ha	Pottery, stone architecture	736 m
10	Rahband 2	Site	Pol-i Dokhtar, Cham Mehr	Middle, Elam, Parthian, Islamic	0.4 ha	Pottery, stone architecture	692 m

11	Div Khou Malgeh	Site	Pol-i Dokhtar, Cham Gardaleh	Early, Middle Elam, Parthian, Sasanian, and Islamic	0.5 ha	Pottery	829 m
12	Dareh Bagh	Site	Pol-i Dokhtar, Cham Gardaleh	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	797 m
13	Tang-i Dareh Bagh	Site	Pol-i Dokhtar, Cham Gardaleh	Middle Elam, Sasanian, Islamic	0.4 ha		747 m
14	Tang-i Malek Hossein	Site	Pol-i Dokhtar, Cham Gardaleh	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	879 m
15	Gor-i Khezr	-	Pol-i Dokhtar, Cham Mehr	Middle Elam	0.2 ha	Pottery, stone architecture	596 m
16	Ghala Bardi 2	Site	Pol-i Dokhtar, Vali Asr	Chalcolithic, Middle Elam, Iron Age, Achaemenid, Parthian, Sasanian, Islamic	2 ha	Pottery, stone architecture	884 m
17	Se Daran 2	Site	Pol-i Dokhtar, Badrik	Middle Elam, Sasanian, Islamic	0.4 ha	Pottery, stone architecture	871 m
18	Poshte Tang	Site	Pol-i Dokhtar, Meidan	Early, Middle Elam	0.4 ha	Pottery	782 m

mound cannot be interpreted without much exploration due to the high level of disorganization and destruction, and it has an unclear plan. However, the distribution extent of the rubble reflects the existence of an important historical building, as supported by the presence of broken fragments of plinths (possibly Parthian) on the site. The presence of irregular rock structures at the top of Tepe Qala Bardi 2, the presence of plinths, and the location of this site on a natural rock hill among the mounds composed of Maren and calcareous (lime) compounds and its higher elevation relative to the surrounding plains indicate its strategic position in this site. Although this area has a very high clay density, only a few pottery sherds from the Middle Elamite period have been found, which seems

Fig. 3. Tepe Qala Bardi 2, Eastern View

quite natural given the site's multiple settlement periods and the destruction of the site (Fig. 3).

Group 2: This group includes settlements that, in addition to pastures suitable for herding, also have good conditions for agricultural activities. The settlements in this group were larger than those in the previous group, and they had better access to multiple linking routes. There are 15 sites in this group, most of which have chronological sequences (Table 2). The most prominent site of this group is the Kalateh site. The site is located approximately 5 km west of Cham Mehr village, within the environs of Pol-i Dokhtar town, and the only way to reach it is through this village. The site is approximately 6 hectares in size and consists of several small and large hills. The main part of the settlement was formed on the largest natural hill along the Seymareh River. Seymareh River is 30 m in length and runs along a north-south path with an arc towards the south. In the northern part of the site, there are traces of historical graves that have not survived smuggling excavations and have been heavily destroyed. The destruction traces in the site are so extensive in the northern part that they have completely altered the landscape. The ceramic assemblage of this site is remarkably diverse and spans a long and varied cultural period, reflecting its strategic location. The pottery obtained from these sites dates back to the prehistoric, Elamite, Parthian, Sasanian, and mid-Islamic periods (Fig. 4).

The periodization of sites is based on pottery typology and comparative studies of ceramic findings. Comparisons show that only seven sites have pottery evidence of the Early Elamite period, and pottery evidence of the Middle Elamite period is found in all of the sites listed.

Elamite Pottery

Pottery has always been among the important subjects in archaeological studies. The reason for this is the abundance of pottery findings from

Table 2. The Identified Elamite Settlements (Group 1)

Row	Name	Type	Location	Cultural Periods	Area	Type of Findings	Height (m.a.s.l)
1	Dar Khorma	Site	Pol-i Dokhtar, Chaleh	Middle Elam, Parthian, Sasanian	5 ha	Pottery	628 m
2	Bon Dareh Key	Mound and site	Pol-i Dokhtar, Cham Gardaleh	Middle Elam	5 ha	Pottery	736 m
3	Tapeh Sangar	Mound and site	Pol-i Dokhtar, Holoush	Bronze Age, Middle Elam, Sasanian, Islamic	0.9 ha	Pottery	645 m
4	Ghala	Mound and site	Pol-i Dokhtar, Cham Gardaleh	Early, Middle Elam, Achaemenid, Sasanian	0.6 ha	Pottery	748 m
5	Tape Holoush	Mound and site	Pol-i Dokhtar, Holoush	Bronze Age, Middle Elam, Sasanian, Islamic	1 ha	Pottery	604 m
6	Khargoushe	Site	Pol-i Dokhtar, Vali Asr	Bronze Age, Middle Elam, Parthian	0.6 ha	Pottery	946 m
7	Se Daran 1	Site	Pol-i Dokhtar, Badrik	Middle Elam, Achaemenid, Parthian	1 ha	Pottery	879 m
8	Karfeh	Mound and site	Pol-i Dokhtar, Babazid	Middle Elam, Islamic	1 ha	Pottery	865 m
9	Kalateh	Mound and site	Pol-i Dokhtar, Cham Mehr	Chalcolithic, Middle Elam, Parthian, Sasanian, Islamic	6 ha	Pottery	708 m
10	Kalk Goul	Site	Pol-i Dokhtar, Holoush	Middle Elam, Sasanian, Islamic	1 ha	Pottery	637 m
11	Gol Nesa Mordeh	Site	Pol-i Dokhtar, Cham Gardaleh	Middle Elam, Sasanian, Islamic	0.5 ha	Pottery	730 m
12	Khezr	Mound and site	Pol-i Dokhtar, Cham Gardaleh	Shushan A, Middle Elam, Sasanian, Islamic	1 ha	Pottery	631 m
13	Vashian	Mound and site	Pol-i Dokhtar, Vashian	Bronze Age, Early, Middle Elam, Sasanian, Islamic	3 ha	Pottery	960 m

Fig. 4. Kalateh Site, Eastern View

excavations and surface surveys on ancient sites in different eras, which have provided the necessary background for extensive studies. Pottery is one of the most widely used and investigable cultural materials for archaeologists, which is extensively utilized in the analysis of archaeological findings and plays a crucial role in studying various cultural, social, and economic aspects of the past, surpassing any other cultural element in significance. All the Elamite ceramics in this study consisted of plain wares, and no painted sample was obtained. In general, the pottery obtained from the Elamite sites of southern Lorestan has some characteristics that can be described as follows in a general category (Tables 3 and 4):

- Plain buff pottery: This type includes the wares that are buff in color. Temper used in this type of pottery is primarily herbal and mixed. In a few examples, the mineral temper contains black and white sand grains. All samples are wheel-made and have sufficient firing. In terms of fineness, this type of pottery can be classified in the moderately fine category. The typical forms of this type of pottery include jars, bowls, and chalices. These potteries are covered with a thin layer of mud.

- Pottery with a red paste and a light color slip: A significant feature of this type is a light color slip applied to the outer surface. This slip typically has a light buff color, which differs from the color of the pottery paste. The color of the paste is red and reddish orange. The temper used in this type of pottery is usually soft sand, and in only a few examples, herbal temper and mineral temper are used. All the samples were wheel-made and had sufficient baking. Typical forms of this type of pottery include jars, plates, bowls, and pots, which can be categorized as moderate in terms of production and processing quality.

- Orange Pottery: This type of pottery is very similar in color to the previous group, with the only difference being that the pottery is covered with no slip.

Table 3. A selection of Elamite Pottery Designs from the Sites

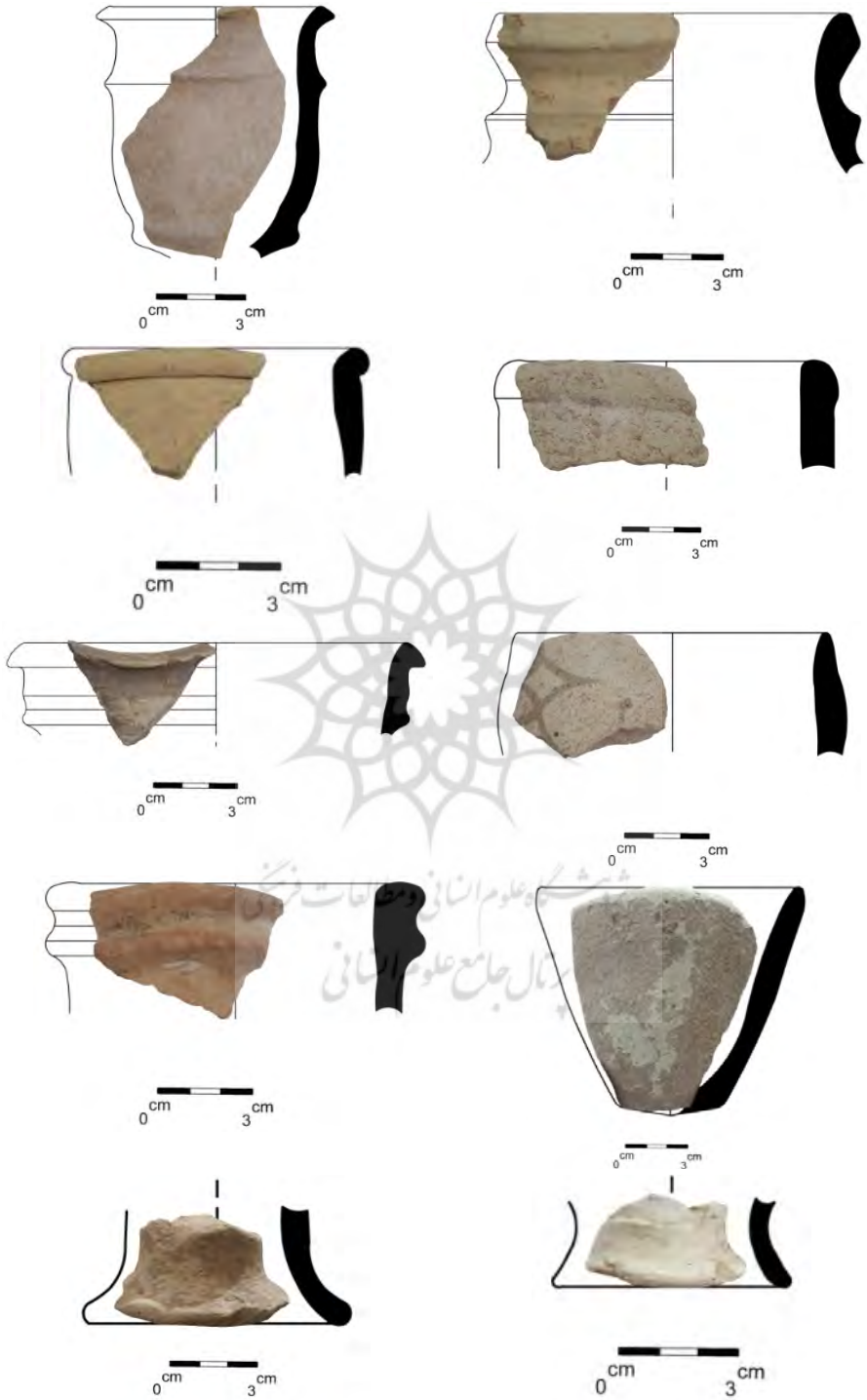

Table 4. A Selection of Elamite Pottery Designs from the Sites

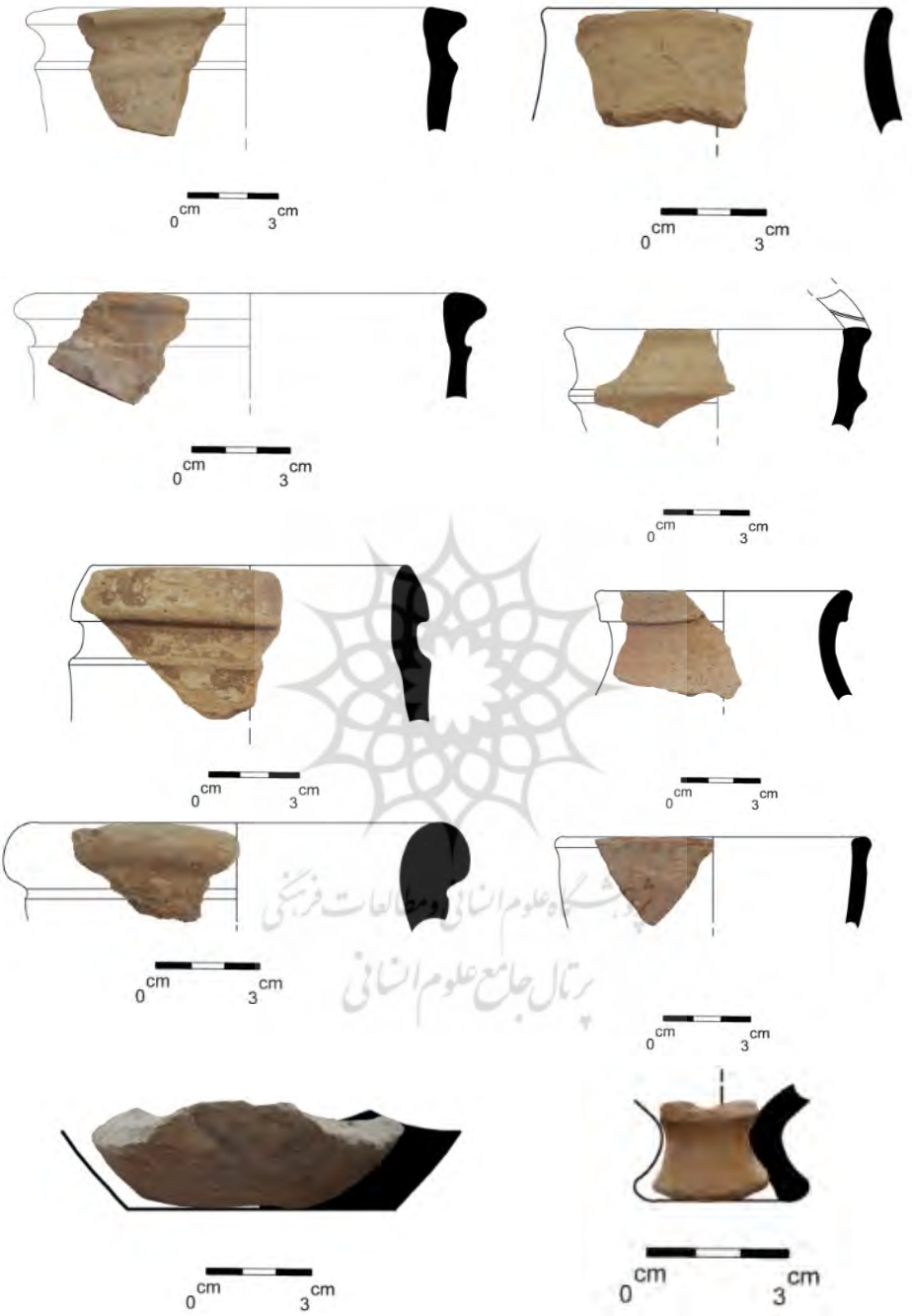

Table 5. Typological Comparison of the Elamite Pottery

Row	Site	Characteristics	Comparison
1	Khargousheh	Rim, light buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Moghaddam & Miri, 2003: 114, fig 15: 11
2	Vashian	Rim, buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Petrie et al., 2009: 537 fig 4.81 TS 942
3	Dar Khorma	Rim, buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1971: 399 fig 38: 6
4	Tape Sangar	Rim, orange, coating-free, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1994: 20 fig 5: 4; De Miroschedji, 1997: 102. Fig. 1:52
5	Gorg-i Koshteh (2)	Bottom, buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Mofidi, 2004, panel 25:7
6	Rahband (2)	Rim, buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1996: Fig 24: 2 De Miroschedji, 1997: 101, Fig. 51:12
7	Vashian	Rim, buff, without coating, wheel-made, well-fired, mineral temper, moderate production quality	Carter, 1996: Fig 18: 15
8	Karfeh	Rim, buff, thin clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1971: 405 fig 41: 6 Petrie et al., 2009: 543 fig 4.84 TS 1163
9	Se Daran (1)	Rim, orange, clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1971: 405 fig 41: 14
10	Dar Khorma	Bottom, buff, thin clay coating, plain, wheel-made, well-fired, hybrid fire clay, moderate production quality	Petrie et al., 2009: 509 fig 4.67 TS1304
11	Kalateh	Rim, buff, clay coating, wheel-made, well-fired, hybrid temper, moderate production quality	Petrie et al., 2009: 509 fig 4.67 TS1304

12	Posht Tang	Rim, buff, clay coating, wheel-made, well-fired, hybrid fire clay, moderate production quality	Petrie et al., 2009: 527 fig 4.76 TS 1183 Carter, 1996: Fig 22: 14
13	Posht Tang	Rim, reddish-orange, thin clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1971: 399 fig 38: 5
14	Gouri Siah (1)	Rim, reddish-orange, thin clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Weeks et al., 2009: 371, fig 3.125 TNP2360
15	Gouri Siah (1)	Bottom, reddish-orange, thin clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Neely & Write, 2010: 53, fig: f
16	Gouri Kaboud (1)	Rim, orange, without coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Wright et al. 2011, 19, fig: e
17	Gorg-i Koshteh (1)	Rim, buff, thin clay coating, wheel-made, well-fired, mineral temper, moderate production quality	Moghaddam & Miri 2003: 112 fig 14: 4
18	Kalateh	Rim, thin clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	Carter, 1996: Fig 22: 13
19	Cham Shahr	Rim, thin clay coating, plain, wheel-made, well-fired, hybrid temper, moderate production quality	De Miroschedji, 1981(a): 81 fig 23: 9
20	Se Daran (1)	Bottom, reddish-orange, thin clay coating, wheel-made, well-fired, mineral temper, moderate production quality	Ghirshman, 1994: 57, design 13

The temper used in this type of pottery contains fine and coarse grains of white and black sand. In terms of production quality, the ceramics of this group are rougher than those of the previous pottery group, and no processing is seen on the pottery. Since the statistical population of this type of pottery is limited, its general forms are unclear, but large pots can fit into this category. Pottery of this category is well-baked, and in only two cases is the pottery insufficiently baked. Due to the limited number of potteries in this group, a general conclusion cannot be made for all of them (Table 5).

Discussion

The special geographical conditions of the Zagros region, including the

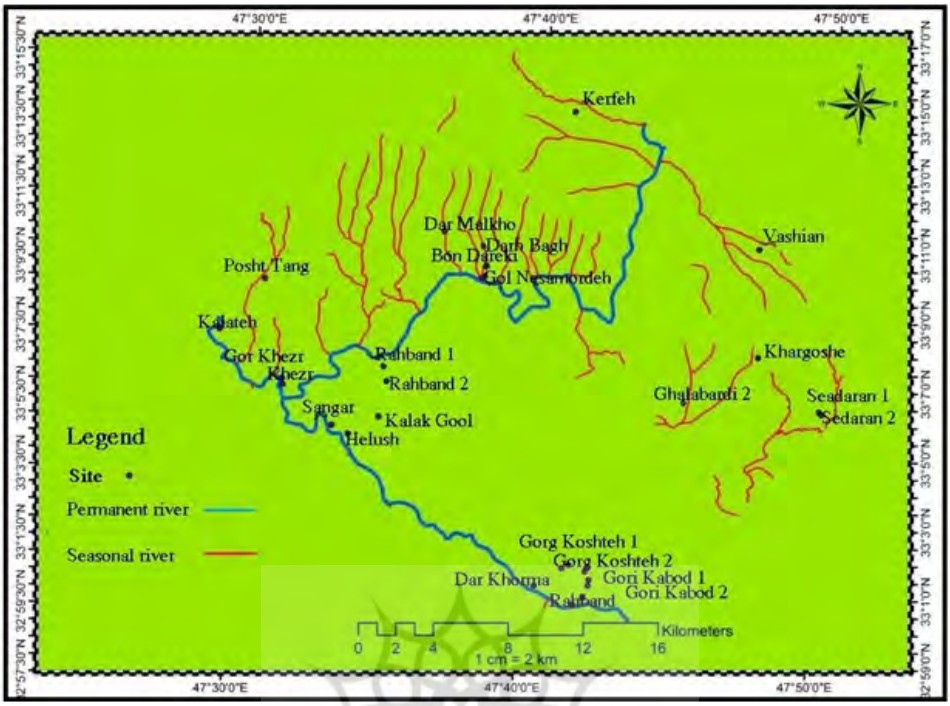

Fig. 6. Location of the Elamite Settlements in Relation to Water Resources

lack of suitable land for agriculture and the abundance of rich pastures and forests, have prepared the region for a nomadic lifestyle (Young, 1972). The early inhabitants of Zagros were forced to exploit both low and high areas due to environmental reasons and the subsistence economy. The result of this process was the formation of trans-regional tribal communities with a comprehensive hierarchy of kin-centered units, ruled by a great khan or chiefdom. In these communities, there were variable coalitions and even military confrontations between the heads of clans, villages, and families. However, it seems that in general, the mountains and plains were governed by an overarching super-tribal system. In the limited production mode of the nomadic lifestyle, wool, and textiles are considered surplus assets and a type of investment that can grow as the population increases (Alizadeh, 2012: 71). The increasing growth and rapid development of urban communities in the lowlands of Mesopotamia as well as the Khuzestan plains during the third and second millenniums BC made the provision of raw and consumable resources for these communities inevitable (Potts, 1993: 388). Meanwhile, the Zagros Mountain chain and the areas beyond it, the low-lying plains at the center of the Iranian plateau, have become a perfect source to supply the basic needs of communities living in Mesopotamia (Alizadeh, 2008: 71). This importance has made the Zagros Mountains be considered as a place to meet the needs of communities living

Fig. 7. Gouri Siah 1 Site, Northern View

in low-laying land, in addition to being known as gateways to the Iranian plateau, (Hintz, 2007: 32). The importance of the mountainous origin of Elamites is reflected in the history of their conflicts with Mesopotamian governments. The losses made by the Mesopotamian forces in Susiana in the second half of the third millennium BC were not significant. The intermountainous plains of the Zagros Mountains and the vast fields of agriculture provided the resources necessary for the political entities of the mountainous regions to survive (Alizadeh, 2012: 74). The boom in nomadic life could increase public wealth and provide a considerable portion of the needs of growing urban communities. The present archaeological survey relatively shows that southern Lorestan was under the influence of the Elamite state. The environmental situation in the region is such that it could attract large populations of migrant communities and provide a suitable context for small-scale agriculture. In the economic system of the nomadic human beings, on the one hand, and the livestock and pasture, on the other hand, formed the basis of the nomadic life. Intermountainous plains suitable for agriculture, as well as hillsides and abundant pastures favorable for herding, are among the most important factors that shape this type of livelihood. The rich pastures of the region, which nomads still use for accommodation and livestock grazing, are indicative of the region's favorable environmental conditions for nomadic communities. The pottery evidence from Middle Elam in all the identified settlements in the area may be rooted in the political considerations of the Elamites in this period and the role of nomadic tribes. The economic benefits of the Elamite government required that it maintain this territory not only for the extraction of metal mines and provision of their fuel through the region's abundant trees but also for the exploitation of its

Fig. 8. Gouri Siah 2 Site, Western View

Fig. 9. Gouri Kaboud 1 Site, Northern View

massive livestock resources. Although the mountainous and impassable situation of the region has limited easy access to numerous linking routes, water resources such as Kashkan and Seymareh rivers, and multiple wetlands of Tang-i Fani have provided a suitable context for the gathering of nomadic communities. Among the identified settlements, 7 sites are located alongside wetlands, 17 sites are on the margins of major rivers, and 7 sites are away from the main rivers. Given the shortage of arable land for farming in these areas, the temporary settlement for

Fig. 10. Gouri Kaboud 2 Site, Northern View

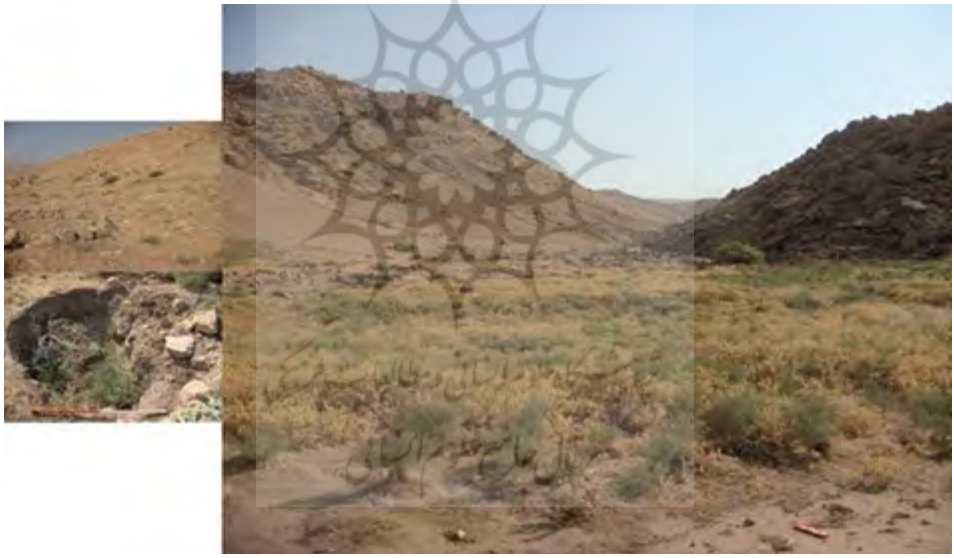

Fig. 11. Gorgeh Koshteh 1 Site, Northern View

herding and a nomadic lifestyle is well justified (Fig. 6).

Conclusion

One of the most common archaeological field researches, which is done with lower costs than excavations and without destruction, is a systematic survey to find and document ancient evidence. These studies are based on observations, surface findings, and relative chronology (derived from comparisons), and can provide a general overview of the archaeology of a region and its

Fig. 12. Gorgeh Koshteh 2 Site, Southern View

significance across different periods. As a result, the field surveys can provide a more favorable context for future archaeological excavations.

This archaeological survey, intended to clarify the status of Elamite settlements in the southern part of the Kashkan River Basin, indicates that this area played a significant role in attracting nomadic communities during this period. Pastoral nomads could supply a significant portion of the subsistence needs of the urban and growing communities of the Middle Elamite period. Although the region lacked extensive linking paths for significant and sustainable settlements during the Elamite period due to its specific environmental conditions, the pastures suitable for animal herding and abundant access to permanent and reliable water resources provided favorable conditions for the settlement of these communities. A careful look at the location of the identified settlements reveals that most of them are formed in shallow valleys and at the foot of natural elevations alongside the plentiful water resources of the region. This form of settlement, which is still common among the pastoral nomads of the region, provides easy access to suitable pastures on the one hand and guarantees the safety of themselves and their livestock on the other hand. Sites such as Gouri Siah 1 and 2 (Fig. 7 and 8), Gouri Kaboud 1 and 2 (Fig. 9 and 10), Gorgeh Koshteh 1 and 2 (Fig. 11 and 12), Shah Hosseini, Dareh Bagh, Tang-i Malek Hussein, and Tang-i Dareh Bagh are among the sites that today host nomadic communities. Although it is difficult to provide a general interpretation of them due to the cultural sequence of the identified sites, the lack of Elamite pottery data, and erosion, it can be inferred that this cultural sequence is likely a result of the region's favorable environmental and strategic conditions. Sites such as Kalateh, Tepe Ghalabardi 2, Vashian, Ghala, Tepe Sangar, and Khezr, with their strategic location relative to the

surrounding plains, perfectly illustrate this cultural sequence. However, undoubtedly, a better understanding and a general interpretation of these sites in the Elamite period would only be possible through excavations.

Bibliography

Alizadeh, A. (2012). *Formation of the nomadic and mountainous government of ancient Elam, City of Shahre Kurd*, Chaharmahal & Bakhtiari Cultural Heritage, Handicrafts and Tourism Organization.

Carter, E. (1996). Excavations at Anshan (Tal-e Malyan): The Middle Elamite Period, Malyan Excavation Reports, William M. Sumner, Series Editor, Volume II, Published by The University Museum of Archaeology and Anthropology, University of Pennsylvania, Philadelphia.

Carter, E., & Wright, H. T. (2010). Ceramic Phase Indicators in Surface Assemblages, in *Elamite and Achaemenid Settlement on the Deh Lurän Plain Towns and Villages of the Early Empires in Southwestern Iran*, Henry T. Wright and James A. Neely (ed.), Ann Arbor, Michigan, 11-22.

Carter, E., & Wright, H. T. (2010). The Archaeological Sites and Their Interpretation, in *Elamite and Achaemenid Settlement on the Deh Lurän Plain Towns and Villages of the Early Empires in Southwestern Iran*, Henry T. Wright and James A. Neely (ed.), Ann Arbor, Michigan, 23-81.

De Miroschedji, P. (1997). Stratigraphy of the "New Elamite" in Susa (ca. 1100 to 540 BC), Susa and Southwestern Iran, History and Archaeology (Social and Cultural Evolution Process from the 7th Millennium BC to the Mongol Invasion). In Jean Peru and Genevieve Delfos (eds.), *Report of the International Conference of Susa and Blue Seminar*. Translated by Hayide Iqbal. Tehran, University Press, 95-89.

De Miroschedji, P. (1981a). *Fouilles du chantier Ville Royal II a Suse* (1975-1977): I. Neveaux Èlamite, Cahiers de la Délégation Archéologie Francaise en Iran 12, 9-216.

Goff, C. L. (1968). Luristan in the first half of the first Millennium B.C, A preliminary report the first seasons excavations at Baba Jan, and associated surveys in the eastern Pish- Kuh, Iran, Vol. Vl, 105-134.

Ghirshman, R. (1994). *Chogha Zanbil* (*Dur Untash*), Translated by Asghar Karimi, Tehran, Vol. I, First Edition, Elmi & Farhangi Publications.

Hintz, W. (2007). Elam's Treaty with Akkadian Naram-Sin, translation by Rahman Bakhtiari, *Journal of Archaeology and History*, 21 and 22, Nos. 1 and 2, 50-32.

Haghi, H., & Emam Gholizadeh, S. (2015). Forecasting the lateral erosion of the turning section of Kashan River, *Journal of Geography and Development*, No. 40, 138-125.

Karimi, B. (1950). *Ancient Roads and Old Capitals of West Iran*, Tehran, National Bank of Iran Printing House.

Khadem, E. (2016). *A systematic survey of Bardi Castle* (2), M.A thesis, Isfahan Art University.

Motamedi, N. (1986). Lorestan Burial Rite in the First Millennium BC, *Journal of Archaeology and History*, Tehran, No. 1, First Year, University Publishing Center, 31-42.

Moghaddam, A., & Miri, N. (2003). Archaeological Research in the Minab Plain of Lowland Susiana, *Iran, Journal of the British Institute of Persian Studies*, Volume XLI, 99-138.

Mofidi, N. B. (2004). *Report of archaeological excavations at Haft Tapeh Archaeological Site*, Archaeology Research Institute, Tehran, (unpublished).

Negahban, E. (1993). *Excavation of Haft Tapeh plain of Khuzestan*, Tehran, Elmi & Farhangi Publications.

Norouz-zadeh, C. N. (1993). Holmes Expedition of First Archaeological Activities in Lorestan, *Journal of Archaeology and History*, Tehran, No. 1 and 2, 13 and 14, Seventh Year, University Publishing Center, 114-97.

Niknami, K., & Rafiei, A. B. (2009). Why Shimashaki's name location probably could not be in the Kerman region, *Journal of Archaeological Studies*, Vol. 1, No. 1, Faculty of Literature and Humanities, University of Tehran, Tehran, 215- 199.

Vandenberghe, L. (1970), Bronzes of Lorestan, translated by Yahya Shahidi, *Journal of Historical Reviews*, No. 27, 132-89.

Potts, D. T. (1993). Patterns of Trade in Third-Millennium B.C. Mesopotamia and Iran, *World Archaeology*, Vol. 24, No. 3, 379-402.

Petrie, C. A., & Weeks, L. R. (2009). Published by Iranian Center for Archaeological Research, Deputy of Research, Tehran, 89-134, Figures, 449-638.

Rezaei, M. (2009). *Survey and study of settlements of the Chalcolithic and Bronze Age in Pol-e Dokhtar town*, M. A thesis, Tehran University.

Schmidt, E. M., Van Loon, M., & Curvers, H. (1989). *The Holmes Expedition to Lourestan*, 2 Volumes, the University of Chicago Press.

Vahdati, A. A. (2006). *Report of the first season of archaeological survey in Pol-e Dokhtar town, Lorestan*, Organization of Cultural Heritage, Handicrafts, and Tourism of Lorestan Province.

Young, T.C. (1972). Population Densities and Early Mesopotamian Urbanism, In P.J. Uckoctal (ed.), *Man, Settlement and Urbanism*. London, *Gerald Duckworth and Co.* 827-842.