Introduction to a Newfound Rocky Structure near the Village of Qal'a Zanjir in Kermanshah, Iran



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Introduction

Qal'a Zanjir village is located on the summit of the Dālāhū mountain. From an archaeological perspective, this region is very *little known* even within the academic world. In 2008, following an archaeological survey of Dālāhū province, the Gahvāre district was archaeologically surveyed under the supervision of Ali Hojabri. Among the identified areas, he referred to a structure titled Qal'a Zanjir ("Castle of Chain") (Hojabri, 2008) [1]. Following a local inhabitant's report in winter 2014, a preliminary visit was made to identify and record this structure and a study begun in order to understand its function and date.

Recognition of this rocky structure and determination of its relative and absolute chronology are the most important goals in the present research, followed by the other important objectives:

- Expand our current knowledge base of rock-cut architecture and local skills
- Attempt to determine the historical identity of Qal'a Zanjir village and the surrounding areas in the archaeological context of the western Iranian plateau
- Identify the conceptual relation between the elevated stone structures and Sasanian funerary practices
- Evaluate the local oral history in the light of the new documentation and archaeological data
- Develop a more coherent and robust plan for future archeological surveys and excavations in this region

Geographical and Environmental Location

Qal'a Zanjir is a village in the Qalkhāni Rural District, located in the Gahvāre District of Dālāhū County, which is located in the Iran's Province of Kermanshah (Figure 1). Located about 15 kilometres southeast of this village lies the Azādi *reservoir* dam and after crossing this one reaches the villages of Dūshmiān and Shavil-e Sādeq Khān, and observes the pristine nature of Qal'a Zanjir. It is believed that this place was the summer residence of King Anūshirvān in the Sasanian period and his famous 'Chain of Justice' was placed here (Fatahi *et al.*, 2015: 3; Mir-Hosseini, 1996: 116) [2-3].

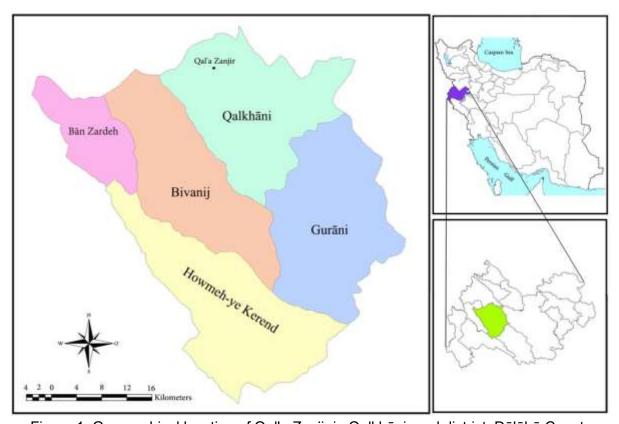


Figure 1: Geographical location of Qal'a Zanjir in Qalkhāni rural district, Dālāhū County

This region has a cold climate. The area is mostly covered by dense oak forests and to a lesser extent ash trees. Snow and rain precipitation as well as seasonal rivers and springs provide abundant fresh water. The Qal'a Zanjir spring, also known as Qal'a Narūg, is located near the village and has an important sacred status among the local inhabitants. Due to this favourable environment, this area has attracted the attention of human communities from antiquity onwards. Today, however, most residents have a nomadic lifestyle and only a tiny portion of the region's inhabitants practise agriculture.

Description of the Structure and its Constitutive Elements

The rocky structure of Qal'a Zanjir (34° 35′ 50.04″ N, 46° 12′ 11.67″ E, 1821 m a.s.l.) is situated about one kilometre southwest of the village on one of the peaks of the Dālāhū mountain chain. Structurally it can be divided into two parts. The main part of the structure was built on the upper part of the mountain, above a relatively deep valley of the Zagros mountain range with a seasonal river flowing along its southern side (Figures 2 and 3).



Figure 2: Satellite image of man-made rocky structure near Qal'a Zanjir village (by Google Earth)



Figure 3: Location of the rocky structure from Qal'a Zanjir village

The available path to reach this place is along an unmetalled road past Qal'a Zanjir village and after several kilometres the rubble masonry walls belonging to nomads and tribes, as well as evidence of multiple cemeteries, are visible. In order to reach the central core of the structure, a long distance has to be traversed through the mountains. In the lower part of the rocky complex, evidence of man-made stairs can be seen. There is also evidence of stone architecture which local reports state used to resemble a chamber but today simply consists of random rubble walls (Figure 4). After crossing some distance, the eroded traces of a rock-cut narrow staircase with low risers become)6 ndFigures 5 a) ntappare.



Figure 4: Evidence of rubble wall in lower part of the complex





Figure 5: Traces of staircase in lower part of complex

Figure 6: A close-up view of the stairs

There is a rock-cut hollow close to the stairs on the surface; another example of such a hollow was also identified in the upper part of the complex (Figure 7). These measure an average of 15 cm in diameter and 10-12 cm in depth. In the archaeological literature, they are often referred to bedrock mortars which are generally believed to have been used in different periods for processing foodstuffs, i.e. by crushing, softening and grinding seeds, nuts and plant roots. Similar examples have been reported from Bān-Sarāb at the western edge of *Sarab*-e Yavari, west of Kermanshah (Alibaigi, 2010-11: 48) [4], Ryjāb (Lahafian, 2015: 30-31) [5] and different regions of Kurdistan including the rock shelters of Asl-Gah and Zardou Mara (Lahafian, 2010-11: 90) [6], but they are not limited to Iran of course.



Figure 7: The so-called stone mortars

Getting close to the upper part of the complex, we should climb more than 40 rock-cut stairs and these appear to be the only or main way to access the summit of the buildings. As one gets closer to this part of the structure, the route becomes more difficult owing to the steep nature of the mountain path but these steps are different with those identified in the lower part of the complex by aspect of their numerous number. These stairs were narrow and rock erosion and collapsed detritus are visible (Figures 8.

and 9). The parallels can be found in the stairs of some monuments such as Taq Bostan and Bisotun.

From above the stairs, a different type of structure is visible on the summit of the mountain. There are three constructed pits which are almost equal in size. Pit no. 1 measures 3.90 x 3.40 m with a visible depth of 3.90 m¹. One of the pit walls has been completely destroyed (Figure 10). Pit no. 2 can be identified only on three sides and a low height of its wall has remained in some parts (Figure 11). Pit no. 3 measures 5.10 x 2.60 m with a depth of 1.70 m (Figure 12). These dimensions are based on surface observations, and accurate measurements must await future excavation. Despite damage and destruction of the pit walls, the remaining parts appear very similar in terms of shape and size. Relatively similar examples of such pits have also been reported from the Rahmat Mountain located in Marvdasht plain, Fars province (Boucharlat, 1978: pl. 35a-b) [7].



Figure 8: Entrance stairs located in the upper part of the complex

¹⁻ The current depth of pits has rose by soils, stones and other natural factors during the time, and the On above-mentioned measurements is just based on preliminary observations.



Figure 9: A close-up view of the entrance stairs



Figure 10: Pit no. 1



Figure 11: Pit no. 2



Figure 12: Pit no. 3, view from east and west sides

Pottery

14 sherds of pottery belonging to the bodies, rims and bases of different vessels were collected from the upper and lower parts of this rocky complex. Four glazed potsherds date to the Islamic period and were found on the lower portion (Figure 13). Other pottery has been identified from inside the complex and has been attributed to the Parthian and Sasanian periods.² Eight pieces of rim belong to vessels such as bowls, jars and pithoi and two bases were also found on the surface. The paste colour of this pottery is buff, they are well-fired and include both handmade and wheel-made wares but most lack

²- Thanks are due to Mr. Shahram Parseh who assisted with the section drawings and provided the characterizations © of the ceramic parts.



any decoration or slip (Table 1). There are two fragments of bowl with an everted rounded rim and a groove below (Figure 14: 1-2). This form is similar to those published from Khuzestan which have been related to the middle Parthian period (Khosrowzade & Aali, 2005: Figs 24, 29; Wenke, 1976: fig. 11: 532) [8-9]. Based on the rim forms, the jars are subdivided into different types, including: necked jars with an everted rim (Figure 14: 3-4) which can be compared with Parthian pottery published from Bisotun (Kleiss, 1970: fig. 25: 12) [10]. Other forms include a jar with an everted pointed hanging rim (Figure 14: 5); a necked jar with an inverted rim which resembles late Parthian pottery from Khuzestan (Figure 14: 6) (Wenke, 1976: fig. 10: 401) [9], a piece of unnecked jar with square rim (Figure 14: 7) which can be paralleled with reported Parthian-Sasanian samples from Māhneshān, Zanjān (Khosrowzade & Aali, 2004: fig. 8, 15) [11]. In addition, a piece of pottery was found whose rim diameter measured about 26 cm and thus has been described as a pithos (Figure 14: 8). This has a mixture of both inverted rounded and flattened rim and closely resembles pottery presented from Qal'eh-i Yazdigird in the Province of Kermanshah (Nazari, 2014: pl. 23: 1-3; Keall & Keall, 1981: fig. 8) [12-13]. As mentioned earlier, two bases were also identified from the surface of the upper part of the complex. One of these is a flat base (Figure 14: 9) which is similar to Parthian pottery from Qal'eh-i Yazdigird (Nazari, 2014: pl. 34) [12], as well as Sasanian pottery from the more distant Gorgān plain (Priestman, 2013: fig. 18: 7, 18: 14) [14]. The other sherd has a concave base (Figure 14: 10) and is paralleled by Parthian-Sasanian pottery reported from the archaeological surveys at Miānāb, Shūshtar (Khosrowzade & Aali, 2005: figs 51, 69, 70) [8].



Figure 13: Glazed potsherds attributed to the Islamic period

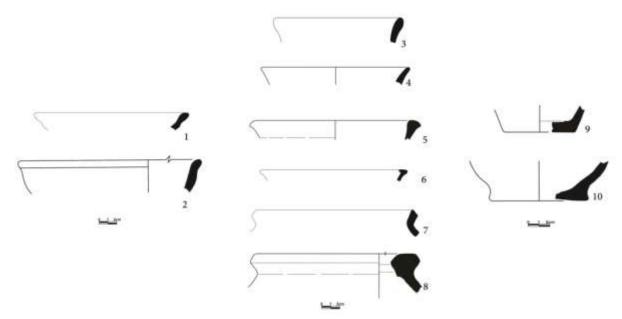


Figure 14: The identified surface potsherds

Table 1: Description of Fig. 14

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No	Form	Manufacture	Paste Color	Temper	Interior Coating	Exterior Coating	Thickness	Firing	Parallels	Period
1	bowl	hand-made	buff	organic	-	-	medium	well-fired	Khosrowzade & Aali, 2005: Fig. 24: 9 [8] Wenke, 1976: Fig. 11: 532 [9]	middle Parthian
2	bowl	hand-made	unknown	organic/ mineral	red slip	red slip	medium	inadequate	Khosrowzade & Aali, 2005: Figs. 24: 3 & 29:6 [8]	middle Parthian
3	jar	wheel-made	buff	mineral	buff slip	buff slip	medium	well-fired	Kleiss, 1970: Abb. 25: 12 [10]	Parthian
4	jar	hand-made	buff	organic/ mineral	-	-	medium	well-fired		
5	jar	wheel-made	buff	mineral	-	wet- smoothe d	course	well-fired		
6	jar	wheel-made	buff	mineral	-	-	fine	well-fired	Wenke, 1976: Fig. 10: 401 [9]	late Parthian
7	jar	wheel-made	grey	mineral	brownish grey slip	grey slip	medium	well-fired	Khosrowzade & Aali, 2004: Fig. 8, 15 [11]	Parthian Sasania n
8	pithos	wheel-made	buff	organic	buff slip	buff slip	course	well-fired	Keall & Keall, 1981: Fig. 8 [13] Nazari, 2014: Pl. 23: 1-3 [12]	Partho/ Sasania n Parthian
9	base	hand-made	reddish buff	mineral	-	1	course	well-fired	Nazari, 2014: Pl. 34. [12] Priestman, 2013: Fig. 18:7, 18: 14 [14]	Parthian Sasania n
10	base	wheel-made	buff	organic	-	-	medium	well-fired	Khosrowzade & Aali, 2005: Figs. 51, 69, 70 [8]	Parthian Sasania

Suggested Function

In general, an archaeological excavation or a survey is a sample of a site or region. These, however, represent no more than samples of already processed material evidence – the results of the post-depositional and depositional processes. Such process, in removing the organic element from most of our artefacts and structures, and by destroying the skeletons and the bone elements of these artefacts in acidic soils, leave us with only a partial representation of what once existed at any site; even those artefacts which are recovered may lack substantial elements (Dark, 1995: 46) [15]. The rocky Qal'a Zanjir structure is no exception in this respect. Not many archaeological remains remain owing to the damage and erosions of the structure³. It is still unconfirmed what the main function of this rocky structure was and why was it built at the highest point of one of the mountain peaks?

The presence of rocky man-made pits of different dimensions at high altitudes reminds us of the lengthy tradition of interment in Zoroastrianism, which was accepted as the official religion of the Sasanian Empire. During the Sasanian period, open body exposure was the official means of disposal of the Zoroastrian dead (although other communities followed their own practices). According to the religious texts, the corpses were placed in high exposed places in order to be eaten by predators and birds, and any remaining bones were sometimes left behind or were carefully collected and placed in ossuaries.

One of the main reasons for the hypothesis that there is a close relationship between the structure and ossuaries is the presence of a later cemetery below this the rocky complex, local reports that some bone fragments were found in the structure in the past and the similarity of the stone hollows and pits to features found at other sites in Iran where there is clearer evidence of a Zoroastrian funerary function. This hypothesis is based on cognitive archaeology while acknowledging that one has to be very careful about specific contexts of discovery as it is the assemblage which matters, rather than the individual object in isolation (Renfrew & Bahn, 2000: 386) [16].

However, although alternative suggestions about the function of this structure have also been considered, such as a place of refuge, water storage, or a stone quarry, the lack of sufficient evidence excludes these possibilities. Moreover, the extreme cold in this region must be noted as that would surely have prevented any normal residential function in this remote place. Thus, based on the evidence and this reasoning, the

³- Generally the rocky monuments, due to exposure to air, encounter many problems including: sedimentary factors, split erosion, cracks and corrosion caused by pressure of plant roots, hole creation by animals, various acids secretion by lichens, writing memento, signs of gunshots and damages due to war and etc. (Mehdi Abadi, 1997) [17].



assumption of a funerary function in the Partho-Sasanian period remains strong and the construction of this place at the highest point of the area and constructing a staircase for access might support this. In any case, what was the purpose behind creating these pits? If this place was built for the exposure of dead bodies, where would the bone ossauries have been located? On the other hand, these pits might have been used as ossuaries for low-ranking people of Sasanian society and used for collective burials. This hypothesis stems from the fact that in the Sasanian period, according to the *Purity Laws* of the Vendidad, open body exposure was compulsory for all Zoroastrians, but the construction of a receptacle was obligatory only for the wealthy and those with little means could leave the bones on the ground after exposure (Farjamirad, 2015: 149) [18].

Conclusion

According to our preliminary investigation of the Qal'a Zanjir structure and the potsherds identified on the surface, this complex is attributed to the historical period, probably the Partho-Sasanian period. Based on the available evidence, it seems most likely that the complex had a funerary function although its original and full architectural plan is unknown and awaits excavation. The structural elements such as the pits and the high location of the complex likely indicate the presence of ritual practice in the past. It may be assumed that this place was used to expose the dead bodies in open air. The exposure practice had been certainly started before the Parthian/Sasanian period, though after the rise of the Sasanian Empire in 224 AD, Zoroastrianism became the official religion of the empire; due to this belief, open body exposure was the only permitted disposal method and burial of dead bodies in the ground was banned in order to avoid polluting the earth. Of course, not all populations followed this custom. It cannot be assumed that everybody kept track of it. This would include not only religious groups such as the Christians, Jews, and Buddhists, and but Zoroastrians as well. So the only disposal method was to expose the dead to scavenging birds and animals. The identification of surface potsherds attributed to the Partho-Sasanian periods supports this dating.

A final point is that this region and peripheral sites such as this have always followed old traditions owing to its remote location and deep local traditions. On the basis of historical and archaeological documents, Islam only spread slowly in these parts of Iran. Judging by the recent cemetery near the structures, it seems that the funerary function in this area was maintained over a long period. However, the Qal'a Zanjir rocky structure is the main core of a large ancient complex whose precise function and exact date can only be confirmed following scientific archaeological excavation. In the meantime, we hope that this short paper will help introduce this fascinating structure to

a wider audience. Further research should also help clarify the status of these important historical periods in western Iran.

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