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Stone Scale/Weights of Bronze Age from Sistan, Iran

Reza MehrAfarin¹ 

Abstract

In Sistan, with an area of 8117 square meters, some 1660 archaeological sites have been explored during two phases of field surveys. The National Geographical Organization of the Armed Forces of Iran has divided Sistan into 22 geographical districts. The south of Qale Rustam Domain with an area of 295 square meters was the aim of second phase of investigation that could discover 280 archaeological sites. Most of them belong to Bronze Age. The site number 152 in the South of Qale Rustam Domain, which is located near the Iran-Afghanistan border with an area of 27000 square meters, was formed simultaneously with Shahr-e Sokhta. During the investigation, two stone objects resembling handbags, as well as a plenty of potsherds were found. The potsherds found at the surface level, both simple and designed are of the types found in phases 5-8 of Shahr-e Sokhta, which date back to the first half of the third millennium B.C. The specific function of these bags is still unclear, but seems to be weights or scale. However, based on chronological studies, these bags, like the other cultural proofs found around them especially pottery, can be attributed to the first half of the third millennium B.C.

Keywords: Iran; Sistan; South of Qale Rustam Domain; Stone Weights; Pottery; Bronze Age.

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Introduction

In 2007, the writer of this article with a permit from the Iran Archaeological Research Center began an archaeological survey in Sistan. The study was conducted in two phases, aimed at exploring all the archaeological sites in Sistan, identifying the chronology of each, and finally preparing archaeological atlas of the region.

Sistan (8117 km²) is located in the northern part of Sistan and Baluchistan province (Fig. 1). The first phase of the survey, including half of Sistan, was performed in the northern and eastern parts of the region, which in fact make up the residential area during the first phase in 2007 and 2008 led to the identification of many as 808 archaeological sites (Musavi Haji & MehrAfarin, 2006: Vol. 1). These

sites conclude three periods: Bronze Age, historical period (Achaemenid up the end of the Sassanid era) and Islamic period.

The second phase of a field survey in Sistan started in 2009. The area of this phase encompasses the desert region. By the end of the survey, 852 archeological sites were identified (MehrAfarin & Mousavi Haji, 2006: Vol. 16), most of which belong to the Bronze Age.

Material and Methods

The method used in this study was based on field surveys and libraries. Archaeological surveys were conducted to recognize sites. The next step was to collect cultural remains from the surface level of each site. Then the acquired materials were analyzed.



Fig .1. Position (Situation) of Sistan in Sistan and Baluchestan Province. This Region is Hachured.

Table 1

Settlement Period	Bronze Age	Bronze-Historical Period	Bronze-Islamic	Historical Period	Islamic	Total
Number	205	37	1	29	8	280

Discussion

The south of Qale Rustam Domain, having an area of 295 km² and located in the vicinity of the Afghanistan-Iran border, was one of the eleven domains which underwent archeological investigations during the second phase of the field survey (Fig. 2). The table below shows the type of the site (settlement period) and also its numbers in the south of the Qale Rustam Domain.

On an average, there is one archeological site per 1.05 km of this area. The site No.152, where two stone bags were found, is one of the 243 Bronze Age sites of this area near the vicinity of the Iran-Afghanistan border (Fig. 3).

The Site No.152 in the South of Qale Rustam Domain

The site No.152 in a northwest-southeast structural direction and having 150×180m dimensions and a maximum height of 8 meters is located at a distant of 61.1km (based on GPS) from the southwestern part of Zabol (Fig. 4). Its longitude and latitude are 61/26/231 and 30/29/411, respectively. The form of this site is irregular and its skirt, with a mild slope, lead to peripheral lands around it. On the hill domains, several canals are visible some of them with notable depth and width. The surface soil of this site is covered by dark grits in a way that the appearance of the site becomes different and distinct from its peripheral environment.

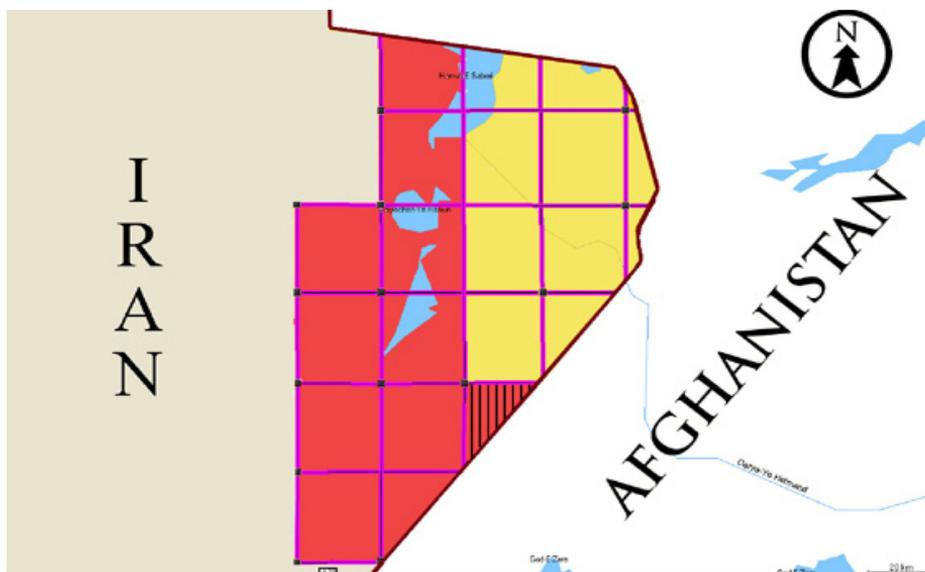


Fig. 2. Position of the South of Qale-Rustam Domain in Sistan (Hachured Section). In This Figure, the Extent of Archeological Surveys of Phase-1 and Phase-2 Is Indicated by Yellow Color and Red Volor, Respectively.

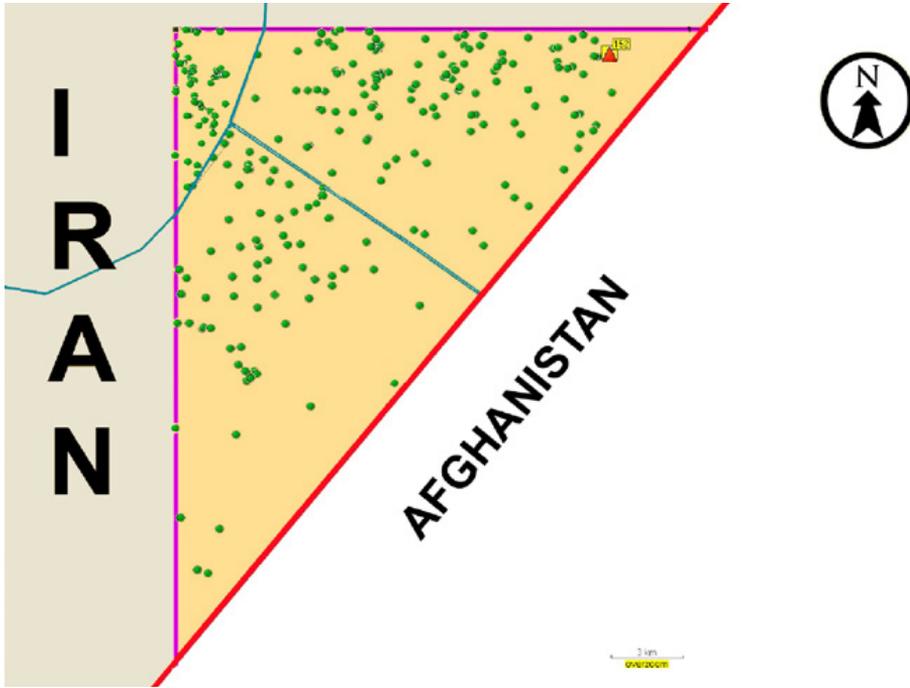


Fig. 3. Position of the Site No.152 in the South of Qale-Rustam Domain. (Red Pyramid). You Can Eee the Distribution of Archaeological Sites in This Domain.

The surface level cultural materials here include parts of stone dishes, stone-made tools, metal slag, and pieces of decorated and simple non-glazed potteries which have relatively high in density.

In the southern part of this mound, there is a dried river bed whose surface is already covered with different local plants. Since the aim of this article is to present and introduce the two stone bags found at the surface level of the site, first we will introduce them and then, in order to develop a relative chronology of these two objects, we will classify and then typologically compare a limited number of pottery samples collected from the surface level and it's domain.

The object No.1 is black and has the form of an amorphous and irregular circle, with its upper part having a shaft in order to move or transfer it (Fig. 5). The outer surface of this object is relatively

smooth (soft) and, in some points, has coarse and deep holes. This coarseness and porosity is more in the lower part, which touches the ground (Fig. 6). Due to heaviness of the bag, perhaps, people who carried it out, in a rough manner and with a sudden force on a streaky and non-smooth place could eventually resulted in the formation of two amorphous pores.

The glossy surface beneath the shaft indicates this instrument has been used frequently, but the upper part of it has undergone severe corrosion making it porous and coarse. Generally speaking, it can be said that this object doesn't have any special delicacy and cannot be considered as one of the most significant elements in ceremonies and rituals. Because if it would have been the case, the artisans and craftsmen who were competent and skillful in working with different



Fig. 4. Site No.152 of the South of Gale-Rustam Domain

stones, especially the hard alabastrines, could varnish and gloss its surface in order to use it in elegant religious rituals and ceremonies, where usually everything was in the best and excellent level and conditions of its own.

Right now, we don't know anything about the exact function and application of this object and, thus, cannot express any idea about it until the site is excavated completely. Currently, the weight of the bag is about 14/690 kilograms but it must be noted that its weight had been more than this, because the gradual corrosions, and also occurrence of breaking and jaggings in some of its surfaces have, in time, decreased its weight. The other features and characteristics of the stone bag are:

- Diameter of shaft, 4 cm;
- Length of shaft, 9 cm;
- Height to top of the shaft sides, 28.4 cm;
- Width: 33.5 cm; and thickness: 10.5 cm.
- The empty space of the shaft has the form of a semi-circle and di-

mensions of 3.2×6.5 centimeters (Fig.5).

The second stone object is grass-green and its dimensions are smaller than the first one. Unfortunately, the archeological group members avoided taking it to the station and left it in its place after taking photographs (Fig. 7). So we don't know its dimensions. As it can be observed in the picture, the shaft of this bag is broken and, also, its dimensions are smaller than the first bag. Just like the other bag, the surface of this too is coarse and non-smooth and some depressions and notches are seen on it.

The chronology of these two bags is as difficult as their application. However it is possible to determine their relative chronology through typologically comparing with several potsherds scattered beside them and on the mound surface. It must be noted that large amounts of broken pottery pieces are disposed off on the mound surface and the group members could transfer a few of the index samples (or indicator samples) to the Archeology Station of Shahr-e Sukhta in

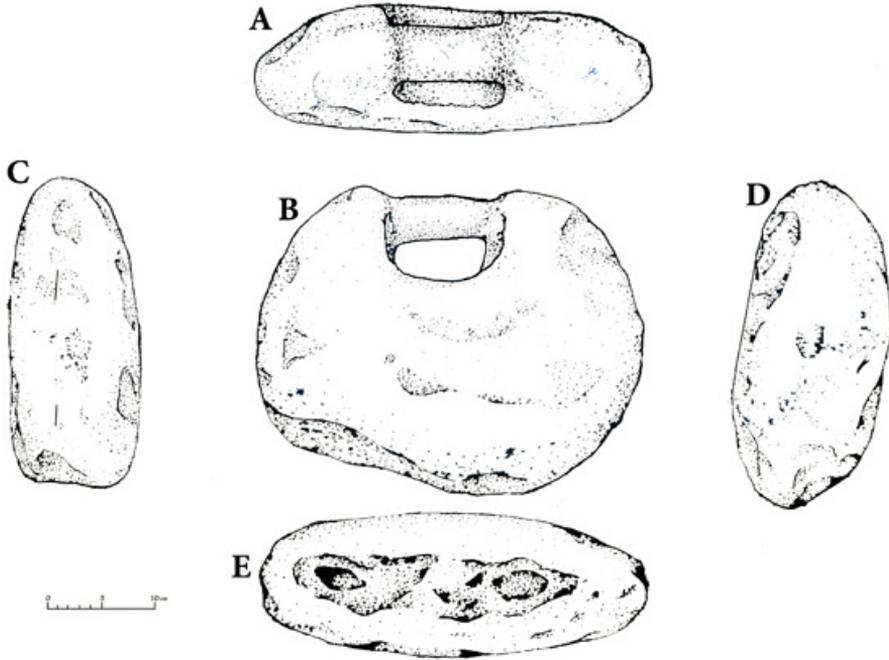


Fig. 5. Stone Objects No. 1. A, Above; B, Front; C and D, Sides and E, Bottom

order to develop a relative chronology of the site.

Index Samples of Surface Potteries of the Site

Based on seven pieces of index pottery which were collected from the mound's surface and its domain, it is possible to divide them into two groups on the basis of simple or decorated variable:

- a- Simple (common) potteries without glaze

The paste of these potteries is buff (Fig. 8; No. 4 and Fig. 9; No. 5 and 7), and brick-colored (Fig. 9; No. 6) and also the color of their mud coating is buff. All of the fragments have been baked sufficiently so, they have suitable strength and compactness.

- b- Decorative potteries without glaze

The potteries of this group have been decorated by using ochre and black colors. Their motif is geometrical and their decoration plan includes: a plan combined with a chain of scallops (jags) in which, transverse hachured triangles are put (Fig. 8; No. 1); a freeze consisting of wavy lines (Fig. 8; No. 2); a freeze comprised of a chain of additional triangles having transverse lines together with horizontal lines (Fig. 8; No. 3). The paste in this group of potteries is buff and dark as well as sufficiently baked, therefore have suitable and enough compactness and strength.

Typological Comparison

The followings are possible comparison: A number of stone bags of Jiroft (Madjidzadeh, 2003: 199-200 and also; Hesari, 2005: 25 and 77) resemble to stone objects of Sistan but, the Jiroft ones are



Fig. 6. Some Pores of the Bottom of the Stone No. 1 Can Be Observed in This Figure.



Fig. 7. Stone No. 2 with Pale Green Color is Observed Beside the Stone No. 1 With Black Color

more beautiful and fair with motifs on them. It seems that the stone bags of Jiroft are newer than those in Sistan.

Bowl No.3 is comparable with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig. 79-80), belonging to Phases 7-8 and Tepe Yahya (Karlovsy, 1971, p.93, Fig.3); Necked Jar No.1, in terms of shape, is comparable with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig.91 and also; Heydari, 2009: Plate 8, No. 5), belonging to Phases 7-8; Container No.6, in terms of form, is comparable

with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig. 120), belonging to phase 6 and (Salvatori & Vidale, 1997: Fig. 143) belonging to Phase 5A; Container No.5, in terms of form, is comparable with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig. 123), belonging to phase 6; Container No.1, in terms of form and decoration plan, is comparable with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig.127), belonging to phase 6; No. 8 with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997:

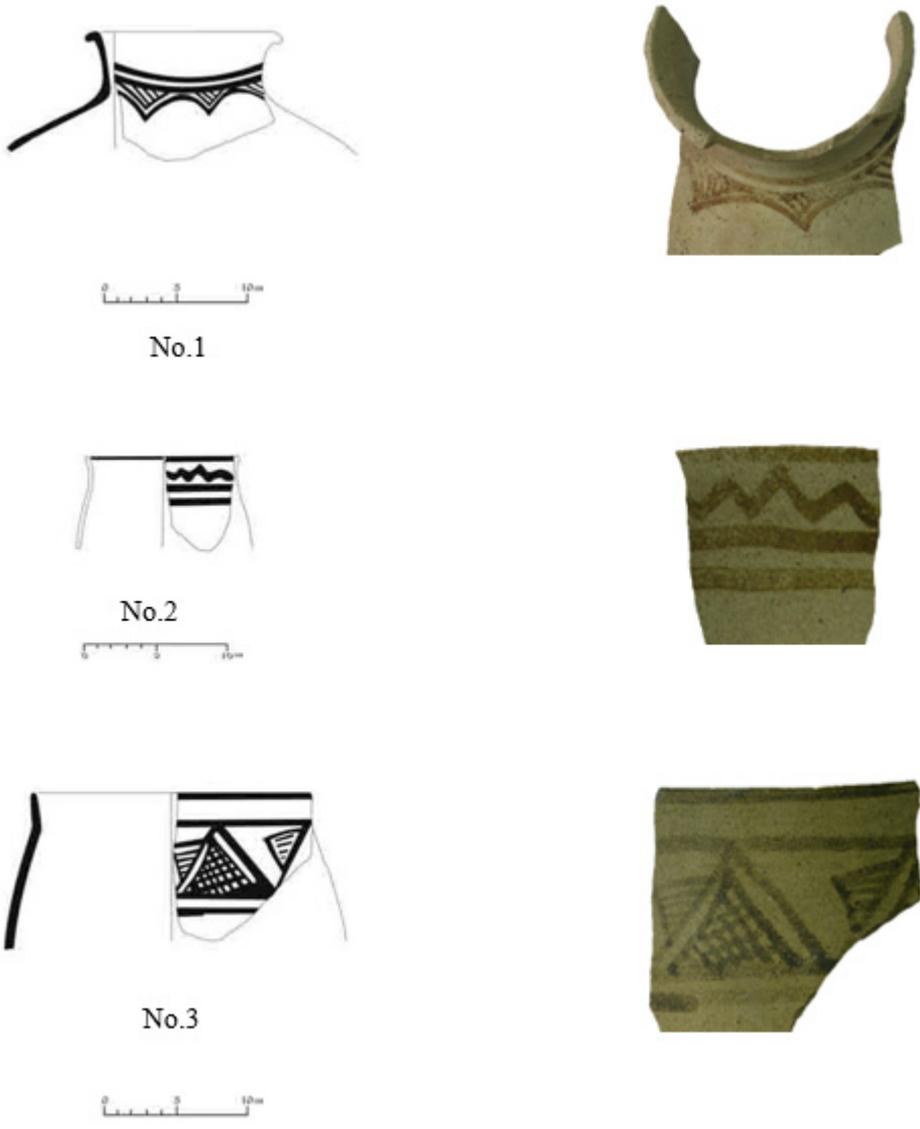


Fig. 8. Samples of decorated and Simple Potteries of the Site No. 152D

Fig.153), belonging to phase 5A and container No.4 with samples from Shahr-e Sukhta (Salvatori & Vidale, 1997: Fig. 154), belonging to phase A5 and finally No.2 in terms of motif, with sample of Noorzadee in Afghanistan (Dupree, 1963, p. 86, No. 42) belonging to the first half of third millennium BC.

Conclusion

Although Sistan is already a land of arid wilderness, but once it had been a reclaimed and prosperous land with a large number of cities, towns, and villages. One of the golden eras of this land was the Bronze Age (third mill. BC), of which, many archaeological sites have been

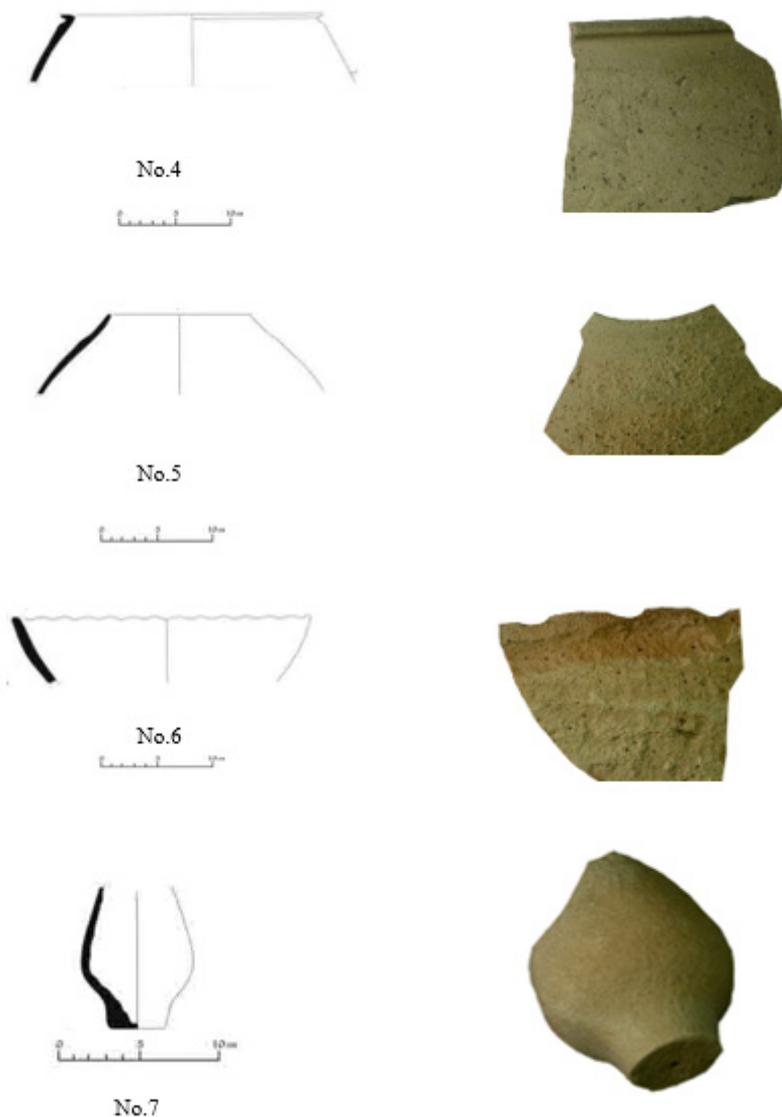


Fig. 9. Samples of Simple Potteries of the Site No.152.991

identified. Unfortunately, despite a large number of sites related to this era, only Shahr-e Sukhta has been excavated so far while huge amounts of information about life, religion, ceremonies and customs, and social, cultural, and commercial relations of people of this area may

be achievable through excavating some other bronze sites.

Although we cannot, right now, specify an exact function for the two stone objects, but mostly seems to be weights. Regarding to the typology of some index samples of surface potteries, it is possi-

ble to assume a relative chronology for these opuses. It seems that the stone bags which have been obtained from this site belong to the first half of the third millennium BC; that is, the era that encompasses Phases 5 to 8 of Shahr-e Sukh-

ta, and during this era Shahr-e Sukhta reached the peak of flourish, prosperity, and evolution in the field of handicraft, urbanism and civilization, and other related things.

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