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Typology of Sasanian Pottery findings in Hegmataneh Tepe

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Abstract: After Parthian period, sasanian layers are richest layers of Hegmataneh Tepe (HT) in terms of frequency of cultural materials particularly in pottery. Since, the functionality of the architectural remains located in this site is still not clear, thus, the investigation of discovered potteries in the site seems to be the most effective way to achieve correct results. The basis of this research is the typology and classifying the pottery findings of Sasanian layers at HT. This typology has been done on the basis of the shape of the vessel and the mouth diameter, type of vessel and the form of the rim, etc. were assessed. The above mentioned cases are clearly in relation with the vessels' uses and this can be derives from diversity rate of pottery used in this site which illustrates the site's functionality. Investigating the size of identified types can illuminate the extent of residents' use of this site. The statistical society under investigation is potteries which were introduced in the final reports from excavation at HT.
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Introduction of the site:

HT, located within today's city of Hamadan, is one of the vastest ancient sites located in west of Iran. The on-the-surface remnants in this hill of which historical and Islamic potteries constituted the major portion motivated the researchers to explore this site. This motivation to discover this ancient city was doubled with indications of the city of Median *Ekbatana* located in Alvand Mountain hillside about which the historians such as Herodotus. The first round of excavations in this site began under the supervision of *Sarraf* since 1993 and continued up to the year of 2001; although *Charlie Foussi* did some excavations in this site in 1913, the excavation's trivial results on one the hand and the beginning of the First World War on the other led him to terminate his study.

The second round of excavations in HT started when there was controversy over designating its architectural remnants to one of the two historical eras. These operations were done with the aim of stratigraphy during four seasons from 2005 to 2009 under the supervision of the Late *Azarnoush*. Despite the prominent results of recent excavations, the functionality of discovered architectural units is open to debate. The most effective and indeed, the least costly approach to this question is the precise study of cultural findings in these excavations. During these operations, more than 10,000 pieces of pottery were obtained, the majority of which relate to the layers remained from Sasanian period. Unfortunately, there is no suitable and clear-cut information about the potteries discovered in the first round of the excavations; as such, an exact observance of this issue was made in the second round of excavations, and all the potteries of each layer were registered and recorded minutely which exist in the reports of seasons one to four of the second round of the in the in HT; however, these reports have been reported as yet. Except an article concerning the explanation of stratigraphy in HT, written by late *Azarnoush*, there is no other study on the potteries existing in this site. On the one hand, a significant number of the potteries discovered and on the other hand, the motivation to clarify the functionality of architectural remains existing in the HT inspired me to do this research.

The importance of studying pottery:

After the Parthian, Sasanian had the longest period of sovereignty in Iran and the expanse of their sovereignty in terms of boundaries was nearly the same as those of the previous eras. Up to now, our knowledge about the culture of Sasanian period was based more on historical texts. The first scientific archeological researches in Iran were done with the aim of identifying the prehistoric eras or the beginning of historic era. Within this time period, there is few research, aiming to study Sasanian period and in most excavations, the cultural sasanian layers were put aside with the least extent of precision in

registering and recording so as to ever-increasingly rapid access to the layers underneath. The study of the texts related to culture belonging to Sasanian period brought to light the unknown aspects of this period and the need to better understand this period encouraged the archeologists to study this period particularly. In the last decades, there have been various and valuable excavations on this issue which have provided us with new horizons about the studies investigating this period. Purposeful surveys and stratigraphic excavations of this period, particularly in single-layer cities and places belonging to Sasanian period such as *Hajiabad* in Fars, *Qasri-Abunasr*, *Tachte-Suleiman*, *Bishapur* have shed light on new dimensions of Sasanian's history and culture. Furthermore, the advances in technologies and archeological sciences have partly paved the way for the recognition of the layers belonging to Sasanian period and their differentiation from the upper and lower layers. Based on this, we observe in some reports the introduction of Sasanian layer in stratigraphical researches. In these reports, potteries are the most abundant discoveries. All the same, there has not been suitable research on Sasanian pottery the wayit deserves or that the researches done were only limited to a specific site. In most cases, the potteries belonging to this period have been simply recognized the same as those belonging to the previous eras and it is frequently observed that in archeological reports, the archeologists suffice to approximate chronology of Parthian-Sasanian period when labeling the pottery pieces. Before the accomplishment of diverse researches and the publication of pottery book on Parthian period by *E. Haerinck*, our recognition of the pottery belonging to Parthian period was too little as well and little attempt had been made to illuminate and separate its features from those of other periods. The need for recognizing the pottery belonging to Sasanian period, so as to provide a rather clear image of its creation in this period throughout Iran, inspired me to embark on the present study. As it was mentioned earlier, research on different dimensions of the pottery will definitely lead to better understanding of the eras and the classification of the pottery underlies this kind of study and illuminates the adopted approach.

Methodology

The potteries under investigation in this study consist of pieces which are mainly related to anterior parts of the vessels. To put it more precisely, they include the rim of the vessel. Also, it has been tried to classify wares which are merely derived from Sasanian layers recognized during stratigraphical excavation in HT; hence, the study dose not include potteries which were collected as a result of surface survey or from anxious layers. In this article, the method of classifying potteries was organized based on existing data and it may not have the predictability capability which is a feature of comprehensive classification models provided in systematic biological sciences. Although the accomplishment of such a research is not impossible, it is not possible through the study of a site. Actually, it needs a comprehensive study of one or several areas which is beyond the scope of this research.

In investigating the typology of the potteries belonging to the second and third seasons of excavations in HT, in overall, 25 types of rims were found. The rims were separated merely based on the difference in the shape of outer, middle and upper surfaces, irrespective of the fact that to which category of vessels they belong. The basis of investigation and the factors constituting the types in this research is as follows:

Form of the vessel's mouth

Form is one of the vessel's looking features. The form of the vessel's mouth has a direct relation with its use and has a determining role in the vessel's type. Thus, in this research, all types of potteries were divided into two groups of Unrestricted Vessel and Restricted vessel on the basis of the form (Azarnoush, 1994: 184). Unrestricted Vessel is said of those in which the mouth's diameter is of the same size or is bigger than the vessel's greatest diameter (in other parts). Restricted Vessel is said of those in which the mouth's diameter is smaller than the vessel's great diameter (in other parts).

The size of the mouth's diameter

Classifying the potteries based on the mouth's diameter is the second feature which is taken into account in this table of typology. As such, the potteries are classified into three classes of big, medium and small. The taken diameters are as follows:

Unrestricted Vessels:

The mouth with a big diameter, reaching 21 Cm and bigger than 21 Cm

The mouth with a medium diameter between 10 and 20 Cm

The mouth with a small diameter, reaching 10 and smaller than 10 Cm

Restricted Vessels:

The mouth with a big diameter, reaching 14 and bigger than 14 Cm

The mouth with a medium diameter between 14 and 7 Cm

The mouth with a small diameter, reaching 7 and smaller than 7 Cm

Type of vessel

Type of vessel is the third feature under investigation in this research. The classification of the vessels types has been done on the basis of the relation between the mouth's diameter and the vessel's biggest diameter. That is, it includes ranges from the vessels with wide mouth and low depth to the vessels with narrow mouth and profound depth. All the same, in most archeological reports, the researches tend to use widespread words when mentioning the vessel types so as to better recognize and understand the vessels. Since, in daily literature, there is no a completely precise definition of these vessels, it is sometimes observed that various terms are used for a vessel type in two archeological reports. As such, it has been tried in the present study to use specific words consisting of a clear definition when classifying the potteries, in addition to being faithful to the reports content and the use of cited words in the texts. In this research, the potteries' pieces, which were not able to be recognized and provided with a clear form, were excluded from the listings of this classification and were not investigated. In this research, the terms used for determining the type of vessel are as follows:

Plate: A round and low-depth vessel with an even bottom. **Jug:** A deep vessel similar to a bottle, but with a wider neck and usually together with a handle. **Bowl:** A round vessel with a half-circular shape (semi-hemispheric) and deeper than a plate. **Beaker:** A small bowl in which the mouth's diameter is 10 centimeters or smaller. Beaker has a more fragile body than the bowl. **Big bowl:** A big bowl which is mainly decorated whose body is connected to the bottom (or the floor) without an arch. **Pithos:** A restricted vessel which is bulgy (or curved) and without neck whose height is normally more than 60 centimeters. They mostly have a wide rim and are strict in nature. **Lid:** Mainly in the form of round plates with low depth which are used to cover the vessels. There is generally a handle in its middle, so as to ease the use. **Pitcher:** A vessel similar to a Jar with a longer neck and which is suitable for carrying liquid. Pitcher has a narrower mouth in comparison with that of a Jar and is of two types, so as to ease its use: **Stoup** which is a restricted vessel type with a long and narrow neck used for carrying or drinking liquids, in particular, wines. **Jar** which is a restricted vessel type with a short neck, sometimes having two or four little handles around the neck and sometimes having no handle at all (Azarnoush, 1994: 185)

The form of rim

The form of the rim is the fourth feature under investigation in typology table. Rim is known as the upper margin of the vessel which sticks to the vessel's body or neck. The form of the rim is indicative of the vessel's use. Labeling the rims in this research was done on the basis of middle-upper and outer surfaces of the rim.

1) Broad rim: These rims are T-shaped and thick in the middle and outer surfaces. The top of their head is like a hammer edge (fig 1: a).

2) Broad perpendicular rim: A type of wide rims in which the upper and outer surfaces form a 90 degree angle (fig 1: b).

3) Wide flat-headed rim: A type of wide rims in which the upper surfaces is smooth (fig 1: c).

4) Foursquare rim: These types of rims look like a quadrilateral at the top (fig 1: d).

5) Internally-slanted rim: These rims are slant in the middle surface (fig 1: e).

6) Progressive rim: These are seen in the vessels in which the thickness of the body increases towards the rim. In such rims, the thickness in the upper part of the rim is greater than those of other parts (fig 1: f).

7) Straight rim: A rim which continues as part of the body which is located perpendicularly without any joints or protuberances (fig 1: g).

8) Straight outer rim: A rim which continues as part of the body and bends towards the outer direction of the vessel without any joints or protuberances (fig 1: h).

9) Straight inner rim: A rim which continues as part of the body and bends towards the inner direction of the vessel without any joints or protuberances (fig 1: i).

10) Reversed internally-slanted rim: This type of rim is twisted outwardly in its uppermost part and its external surface is slanted (fig 1: j).

11) Reversed round-headed rim: This type of rim is twisted outwardly in its uppermost part and has rounded upper surfaces (fig 1: k).

12) Reversed striped rim: This type of rim is twisted outwardly in its uppermost part and its external surface is seen as a stripe drawn round the vessel when displayed (fig 1: l).

13) Angled rim: A rim which dose not continues as part of the body and as such, makes an angle together with the body (fig 1: m).

14) Grooved rim: This type of rim is grooved in the outer margin. The number of margins may be one or several. Also, the depth of grooves is various (fig 1: n).

15) Internally-slanted grooved rim: A grooved rim in which the internal surfaces are slanted (fig 1: o).

16) Two-dimensional (or planar) grooved rim: A rim which is slanted in the upper and outer surfaces (fig 1: p).

17) Flat-headed grooved rim: A grooved rim in which the upper surface is smooth (fig 1: q).

18) Wick rim: A rim in which the outer surface is thicker than the body. The outer surface of these types of rims is convex-looking at the top (fig 1: r).

19) Triangular rim: These types of rims appear triangle at the top (fig 1: s).
20) Sharp triangular rim: A triangular rim in which the connection piece between outer surface and upper one is prolonged and sharp (fig 1: t).
21) Grooved triangular rim: A triangular rim in which the outer surface is grooved (fig 1: u).
22) Jointed triangular rim: A triangular rim in which there is a projection (or protuberance) at the lowest part of the outer surface (fig 1: v).
23) External jointed rim: A rim in which there is a projection (or protuberance) at the lowest part of the outer surface (fig 1: w).
24) Internal jointed rim: A rim in which there is a projection (or protuberance) at the lowest part of the internal surface (fig 1: x).
25) Striped rim: A rim whose outer surface is smooth at the top which revolves round the vessel as a stripe (fig 1: y).

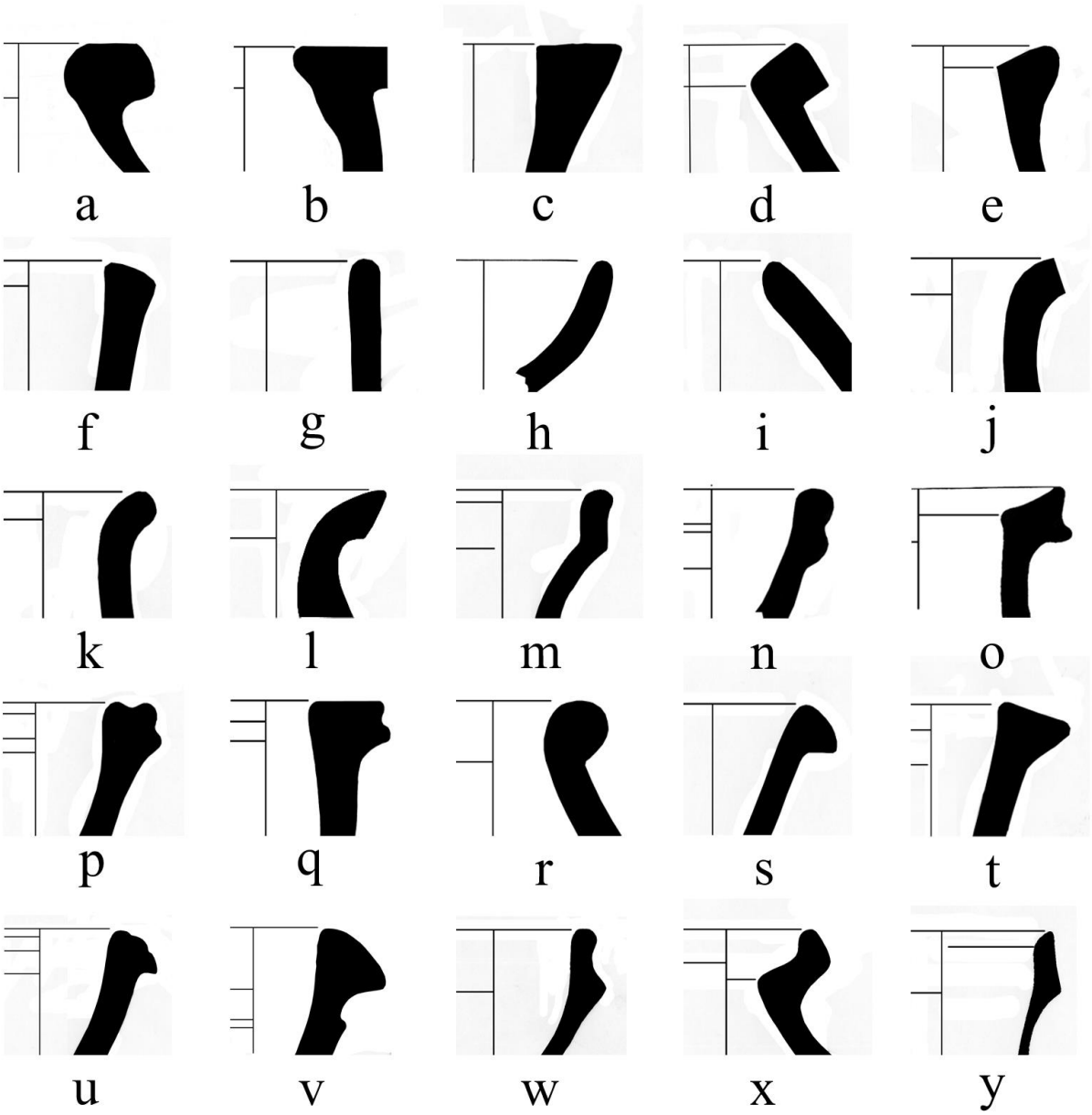

Fig 1

The material under investigation After thorough study of archeological reports from HT, in overall, 133 pieces of wares related to Sasanian layers were selected to do the classification. First, a table with seven columns was designed to do the classification. These columns were designated as the order, the season of the exploration, form of the vessel's mouth, mouth diameter, and the shape of vessel, the form of rim and the number of pottery design in excavation reports respectively.

It is necessary to mention that in an attempt to better separate the pottery pieces of each season from each other, A and B alphabet letters were added to the beginning of the number of vessel design, representing the second and third seasons of the excavation respectively (Azarnoush, 2006) & (Azarnoush, 2007). The following table represents comprehensively the features of each piece (Table 1).

Table 1

No.	Pottery No.	Form of the Vessel's Mouth	Size of the Mouth's Diameter	Type of Vessel	Form of Rim	Comparison
1	A142	Unrestricted	Big	Bowl	Flat-headed grooved	J. Alden, Tal-i Malyan, fig. 5: 7
2	A41	Unrestricted	Big	Bowl	Triangular	M. Kervran, Sohar, fig. 6: 17
3	A191	Unrestricted	Big	Bowl	Triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: av
4	A296	Unrestricted	Big	Bowl	Triangular	J. Alden, Tal-i Malyan, fig. 6: 24
5	A330	Unrestricted	Big	Bowl	Triangular	M. Kervran, Sohar, fig. 7: 12
6	A440	Unrestricted	Big	Bowl	Triangular	J. Alden, Tal-i Malyan, fig. 6: 24
7	A482	Unrestricted	Big	Bowl	Triangular	J. Alden, Tal-i Malyan, fig. 5: 14
8	B251	Unrestricted	Big	Bowl	Triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: aw
9	B339	Unrestricted	Big	Bowl	Triangular	R. Wenke, Khuzestan, pl. 18: 326
10	B460	Unrestricted	Big	Bowl	Triangular	M. Kervran, Sohar, fig. 7: 12
11	B1111	Unrestricted	Big	Bowl	Triangular	M. Kervran, Sohar, fig. 7: 12
12	B1384	Unrestricted	Big	Bowl	Triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. b: ah
13	A123	Unrestricted	Big	Bowl	Jointed triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: sw
14	A134	Unrestricted	Big	Bowl	Jointed triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: aw
15	A166	Unrestricted	Big	Bowl	Jointed triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: aw
16	A310	Unrestricted	Big	Bowl	Jointed triangular	J. Alden, Tal-i Malyan, fig. 5: 14
17	B501	Unrestricted	Big	Bowl	Jointed triangular	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: aw
18	B845	Unrestricted	Big	Bowl	Jointed triangular	R. Wenke, Khuzestan, pl. 16: 301
19	A138	Unrestricted	Big	Bowl	Grooved triangular	R. Wenke, Khuzestan, pl. 15: 227
20	A545	Unrestricted	Big	Bowl	Grooved triangular	R. Wenke, Khuzestan, pl. 15: 227
21	B991	Unrestricted	Big	Bowl	Grooved triangular	R. Wenke, Khuzestan, pl. 15: 227
22	A268	Unrestricted	Big	Bowl	Two-dimensional grooved	J. Alden, Tal-i Malyan, fig. 5: 14
23	A292	Unrestricted	Big	Bowl	Two-dimensional grooved	R. Wenke, Khuzestan, pl. 19: 331
24	B709	Unrestricted	Big	Bowl	Two-dimensional grooved	J. Alden, Tal-i Malyan, Fig. 5: 10
25	A313	Unrestricted	Big	Bowl	Progressive	J. Alden, Tal-i Malyan, fig. 6: 22
26	B688	Unrestricted	Big	Bowl	Progressive	W. Kleiss, Cal Tarkhan, Abb. 5: 15

27	A1006	Unrestricted	Big	Bowl	Straight inner	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: bc
28	B1523	Unrestricted	Big	Bowl	Wick	W. Kleiss, Cal-Tarkhan, Abb. 5: 15
29	A54	Unrestricted	Big	Big bowl	Triangular rim	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: z
30	A161	Unrestricted	Big	Big bowl	Triangular rim	R. V. Riccardi, Tell Mahuz, fig. 94: 74
31	A311	Unrestricted	Big	Big bowl	Triangular rim	J. Alden, Tal-i Malyan, fig. 6: 23-24
32	A507	Unrestricted	Big	Big bowl	Triangular rim	J. Alden, Tal-i Malyan, fig. 6: 24
33	A1057	Unrestricted	Big	Big bowl	Triangular rim	J. Alden, Tal-i Malyan, fig 5: 14
34	A1061	Unrestricted	Big	Big bowl	Triangular rim	J. Alden, Tal-i Malyan, fig. 6: 24
35	A302	Unrestricted	Big	Big bowl	broad	J. Alden, Tal-i Malyan, fig. 5: 5
36	A389	Unrestricted	Big	Big bowl	broad	J. Alden, Tal-i Malyan, fig. 6: 24
37	A537	Unrestricted	Big	Big bowl	Wide flat-headed	J. Alden, Tal-i Malyan, fig. 5: 5
38	A383	Unrestricted	Big	Big bowl	Grooved triangular rim	J. Alden, Tal-i Malyan, fig. 6: 24
39	A384	Unrestricted	Big	Big bowl	Jointed triangular rim	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: bi
40	A511	Unrestricted	Big	Big bowl	Progressive	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: bm
41	A789	Unrestricted	Big	Big bowl	Progressive	M. Kervran, Sohar, fig 7: 14
42	A445	Unrestricted	Big	Big bowl	Sharp triangular	D. B. Harden, Kish, fig.1: 3
43	B1116	Unrestricted	Big	Big bowl	Wick	R. Mc C. Adams, Tell Abu Sarifa, D: d
44	B1283	Unrestricted	Big	Plate	Straight	J. Alden, Tal-i Malyan, fig 6: 20
45	A299	Unrestricted	Big	Lid	Grooved	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: b1
46	B109	Unrestricted	Big	Lid	Straight	J. Alden, Tal-i Malyan, fig. 6: 19
47	A92	Unrestricted	Medium	Bowl	Grooved	D. B. Harden, Kish, fig. 3: 15
48	A237	Unrestricted	Medium	Bowl	Straight outer	M. Kervran, Sohar, fig. 7: 14
49	A263	Unrestricted	Medium	Bowl	Straight outer	M. Kervran, Sohar, fig. 8: 28
50	B1575	Unrestricted	Medium	Bowl	Straight outer	D. Kennet, Eastern Arabia, fig 2: Type 5
51	A305	Unrestricted	Medium	Bowl	Striped	D. B. Harden, Kish, fig. 1: 15
52	A954	Unrestricted	Medium	Bowl	Straight inner	D. B. Harden, Kish, fig. 1: 1
53	B673	Unrestricted	Medium	Bowl	Straight inner	R. V. Ricciardi, Tell Mahuz, fig. 94: 75
54	A973	Unrestricted	Medium	Bowl	Triangular rim	D. Kennet, Eestern Arabia, fig. 6
55	B1513	Unrestricted	Medium	Bowl	Angled	R. Wenke, Khuzestan, pl. 18: 329
56	B476	Unrestricted	Medium	Bowl	Straight	R. Wenke, Khuzestan, pl. 15: 227
57	A451	Unrestricted	Medium	Beaker	Straight inner	R. V. Ricciardi, Tell Mahuz, fig. 94: 75
58	A472	Unrestricted	Medium	Beaker	Straight inner	R. V. Ricciardi, Tell Mahuz, fig. 94: 75

59	A544	Unrestricted	Medium	Plate	Straight	J. Alden, Tal-i Malyan, fig. 6: 20
60	A346	Unrestricted	Small	Beaker	Straight outer	R. V. Ricciardi, Tell Mahuz, fig. 94: 75
61	A929	Unrestricted	Small	Beaker	Straight outer	D. B. Harden, Kish, fig. G: 4
62	A1117	Unrestricted	Small	Beaker	Progressive	R. Wenke, Khuzestan, pl. 18: 326
63	A309	Unrestricted	Small	Bowl	Triangular rim	J. Alden, Tal-i Malyan, fig. 5: 15
64	A1101	Unrestricted	Small	Bowl	Triangular rim	R. Wenke, Khuzestan, pl. 18: 326
65	B604	Unrestricted	Small	Bowl	Straight inner	R. Nauman, Tachte-Suleiman, P.23
66	A862	Unrestricted	Small	Plate	Straight	D. B. Harden, Kish, fig. 3: 3
67	A49	Unrestricted	Small	Lid	Grooved	M. Kervran, Sohar, fig. 6: 22
68	B323	Unrestricted	Small	Lid	Straight	J. Alden, Tal-i Malyan, fig. 6: 19
69	A159	Restricted	Big	Pithos	Straight inner	R. Wenke, Khuzestan, pl. 17: 306
70	A1107	Restricted	Big	Pithos	Straight inner	R. Wenke, Khuzestan, pl. 306
71	A194	Restricted	Big	Pithos	Internal jointed	J. Alden, Tal-i Malyan, fig. 5: 6
72	B1108	Restricted	Big	Pithos	Internal jointed	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: d
73	A315	Restricted	Big	Pithos	Foursquare	D. B. Harden, Kish, fig. 3: 4
74	A744	Restricted	Big	Pithos	Foursquare	J. Alden, Tal-i Malyan, fig. 5: 6
75	A872	Restricted	Big	Pithos	Foursquare	D. S. Whitcomb, Bushir and Angalicanal, fig G: J
76	A467	Restricted	Big	Pithos	Striped	J. Alden, Tal-i Malyan, fig. 5: 11
77	A463	Restricted	Big	Pithos	Triangular rim	M. Kervran, Sohar, fig. 8: 20
78	A854	Restricted	Big	Pithos	Triangular rim	R. Mc C. Adams, Tell Abu Sarifa, fig. 6: br
79	A550	Restricted	Big	Pithos	Internally-slanted	R. V. Ricciardi, Tell Mahuz, fig. 96: 95
80	A552	Restricted	Big	Pithos	Broad perpendicular	R. Wenke, Khuzestan, pl. 16: 302
81	A626	Restricted	Big	Pithos	Wick	D. Kennet, Eestern Arabia, fig 3. type 81
82	A743	Restricted	Big	Pithos	Wick	D. B. Harden, Kish, fig. 3: 4
83	B742	Restricted	Big	Pithos	Internally-slanted grooved	R. Wenke, Khuzestan, pl. 14: 202
84	B1175	Restricted	Big	Pithos	Internally-slanted grooved	R. V. Ricciardi, Tell Mahuz, 88: 10
85	B599	Restricted	Big	Pithos	Grooved triangular rim	R. Wenke, Khuzestan, pl. 15: 227
86	A457	Restricted	Big	Jar	Grooved	D. B. Harden, Kish, fig. 1. 23
87	A671	Restricted	Big	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 1: 7
88	B808	Restricted	Big	Jar	Straight outer	R. Mc. C. Adams, Tell Abu Sarifa, fig. 6: b
89	A25	Restricted	Medium	Jar	External jointed	R. Mc. C. Adams, Tell Abu Sarifa, fig. 6: t
90	A30	Restricted	Medium	Jar	External jointed	M. Kervran, Sohar, fig 4: 11
91	A257	Restricted	Medium	Jar	External jointed	R. V. Ricciardi, Tell Mahuz, fig. 92: 44
92	A578	Restricted	Medium	Jar	External jointed	R. V. Ricciardi, Tell Mahuz, fig. 92: 45
93	A326	Restricted	Medium	Jar	Grooved	D. B. Harden, Kish, fig. 1. 16
94	A403	Restricted	Medium	Jar	Grooved	R. Wenke, Khuzestan, pl. 14: 204
95	A418	Restricted	Medium	Jar	Grooved	R. V. Ricciardi, Tell Mahuz, fig. 92: 47
96	A503	Restricted	Medium	Jar	Grooved	R. V. Ricciardi, Tell Mahuz, fig. 90: 27
97	B1376	Restricted	Medium	Jar	Grooved	R. V. Ricciardi, Tell Mahuz, fig.

						91: 46
98	A164	Restricted	Medium	Jar	Striped	R. V. Ricciardi, Tell Mahuz, fig. 93. 60
99	A372	Restricted	Medium	Jar	Striped	R. V. Ricciardi, Tell Mahuz, fig. 90: 24
100	A498	Restricted	Medium	Jar	Striped	R. Wenke, Khuzestan, pl. 18: 326
101	A571	Restricted	Medium	Jar	Striped	R. V. Ricciardi, Tell Mahuz, fig. 91: 46
102	A165	Restricted	Medium	Jar	Reversed internally-slanted	R. V. Ricciardi, Tell Mahuz, fig. 92: 54
103	A266	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 3: 8
104	A284	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 3: 12
105	A316	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 3: 10
106	A417	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 1: 17
107	A495	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 3: 8
108	A497	Restricted	Medium	Jar	Reversed round-headed	D. B. Harden, Kish, fig. 3: 12
109	A331	Restricted	Medium	Jar	Progressive	D. B. Harden, Kish, fig. 3: 4
110	A394	Restricted	Medium	Jar	Flat-headed grooved	D. B. Harden, Kish, fig. 1 : 23
111	A797	Restricted	Medium	Jar	Triangular rim	M. Kervran, Sohar, fig. 6: 2
112	A43	Restricted	Medium	Pithos	Reversed internally-slanted	R. V. Ricciardi, Tell Mahuz, fig. 89: 11
113	A1064	Restricted	Medium	Pithos	Straight inner	R. Wenke, Khuzestan, pl. 17: 306
114	B849	Restricted	Medium	Pithos	Straight inner	R. Wenke, Khuzestan, pl. 16: 301
115	B1087	Restricted	Medium	Pithos	Grooved	R. Mc C. Adams, Tell Abu Sarifa, fig. b: af
116	A1053	Restricted	Medium	Jug	Angled	M. Kervran, Sohar, fig. 6: 14
117	A332	Restricted	Medium	Jug	Reversed striped	D. B. Harden, Kish, fig. 1: 17
118	A295	Restricted	Medium	Jug	Straight outer	D. B. Harden, Kish, fig. 1: 19
119	A392	Restricted	Medium	Jug	Straight outer	D. B. Harden, Kish, fig. 3: 8
120	A419	Restricted	Medium	Jug	Straight outer	M. Kervran, Sohar, fig. 6: 4
121	A1051	Restricted	Medium	Jug	Straight	M. Kervran, Sohar, 1984, fig. 8: 25
122	A363	Restricted	Medium	Pitcher	Internally-slanted grooved	J. Alden, Tal-i Malyan, fig. 6: 5
123	A461	Restricted	Medium	Pitcher	Angled	R. Mc. C. Adams, Tell Abu Sarifa, fig. 6: bw
124	A542	Restricted	Medium	Pitcher	Angled	D. B. Harden, Kish, fig. 1: 23
125	A478	Restricted	Medium	Pitcher	Grooved	M. Kervran, Sohar, 1984, fig. 6: 4
126	A720	Restricted	Medium	Pitcher	Grooved	J. Alden, Tal-i Malyan, fig. 6: 3
127	B1521	Restricted	Medium	Pitcher	Grooved	M. Kervran, Sohar, fig. 8: 7
128	A51	Restricted	Small	Stoup	Progressive	D. B. Harden, Kish, fig. 1: 12
129	A122	Restricted	Small	Stoup	Reversed striped	R. V. Ricciardi, Tell Mahuz, fig. 92: 53
130	A737	Restricted	Small	Pitcher	Striped	R. V. Ricciardi, Tell Mahuz, fig. 64: 60
131	B306	Restricted	Small	Pitcher	Grooved	M. Kervran, Sohar, fig. 8: 25
132	A209	Restricted	Small	Jug	Straight outer	D. B. Harden, Kish, fig. 1: 18
133	A290	Restricted	Small	Jar	External jointed	R. V. Ricciardi, Tell Mahuz, fig. 92: 45

Results

Out of 133 pieces of the pottery under investigation in this research, 68 pieces were related to Unrestricted Vessels and 65 pieces belonged to Restricted Vessels. Thus, Unrestricted Vessels constitute 51% and Restricted Vessels constitute 49% of the total potteries.

Of the total potteries under investigation, 50% was devoted to vessels of big sizes, 39% to those of medium sizes and 11% to those of small size.

The statistical investigation of the potteries shows that bowls were the most items among discovered vessels, constituting 31% of the total samples. Bowls were recognized as having 13 forms of rims, irrespective of the size of mouth's diameter. These rims include angled, progressive, grooved, planar or two-dimensional grooved rim, flat-headed grooved rim, straight, straight outer rim, wick, triangular, grooved triangular, jointed triangular and striped rim. Bowls with triangular rim has the highest frequency among other forms of rims.

Jars came second, after the bowls, in terms of the vessels' frequency or abundance, constituting 20% of all the samples. In overall, the Jars were recognized as having 9 forms of rims of which the reverse round-headed rim was more prevalent than the others.

Pithos are the most used kinds of vessels after jars, constituting 16% of all the samples. Notice that no pithos was found with a small mouth's diameter. Twelve forms of rims were recognized for pithos and that straight inner rim and foursquare rim were more prevalent than the others. Pithos have more diversity in terms of the forms of rim, despite having lower percentages in comparison with jars.

Big bowls come under the pithos, having the frequency of 11%. Despite this, the diversity in the forms of rim among these amounts to 8 which is prominent in comparison with the jars. Triangular rim in big bowls is one of the most prevalent forms of rim.

Statistics show that Restricted Vessels have been made more in medium sizes than in big sizes; on the other hand, Unrestricted Vessels have been made mainly in big sizes.

One of the other obtained statistical results is the abundance (or frequency) of the used rims. Out of 25 rims introduced earlier, most created vessels have triangular rims. Groove rim, straight inner rim and straight outer rim are placed in the next ranks respectively in terms of the frequency.

Another important point derived from the investigation of the forms of rims is their diversity in the creation of one type of vessel. For example, plates are created only with straight rims. As was mentioned earlier, bowls have the most diversity in the form of rims. Among broad perpendicular rims, internally-slanted rims, wide flat-headed rims, sharp triangular, only one case has been identified and it seems that this form of rim has the least applicability. The jointed triangular rim has been used for Unrestricted Vessels, i.e. bowl and pithos and it appears that this form of rim has not been used another type of vessel. Also, the outer jointed rim has only been used for creating jars, and internal jointed rim has only been used for creating pithos.

Conclusion:

Undoubtedly, the creation of vessels with diverse rims is not accidental and is dependent on its use. In Sasanian layer of HT, there were recognized at least 58 types of vessels with diverse rims; although few architectural works belonging to Sasanian period were found in this place, the diversity of potteries is indicative of the widespread use of HT in this period as a residence place. The diversity of creation is also indicative of permanent residence, as both vessels designated for storing foodstuff, such as jar, pithos, and vessels designate for daily use, such as plate, bowl have been created in a rather similar quantities. It is hoped that the precise study of potteries based on the form of rim and the recognition of the each vessel's use can lead us to the recognition of the diet of those residing in this site in Sasanian period.

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