

A Report on Systematic Survey of Archaeological Site, *Ahmed-Abade Kuzeh-Garan, in the Central Plateau of Iran*

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Abstract

From the Neolithic period up to now, the alluvial fan *Varamin* has been an appropriate area for settlement of human societies because of its rich and fertile soil. Many prehistoric sites in this part of the vast plain of Rey have been discovered and excavated. The archaeological site, *Ahmed-Abade Kuzeh-Garan*, is situated at 3km from the west of Varamin city, within farms. In winter 2013, a *systematic survey* was done in the site with the purpose of dating the oldest time and the range of settlement. The methodology was to grid the total surface of the site, from which half of the material culture was sampled to determine its classification and typology. Most surface discoveries were *pottery* sherds, therefore we focused more on these materials. This field study indicated that *Ahmed-Abade Kuzeh-Garan* site belonged to *the Late Ruralism Age* (Chalcolithic Period).

Keywords: Ahmed-Abade Kuzeh-Garan, Varamin, systematic survey, pottery, the Late Ruralism Age

1- Introduction

The cultural period of Sialk III in chronology of the Central Plateau of Iran overlaps the Late Ruralism Age (Chalcolithic Period)². In this Age, invention of potter's wheel and pottery kiln – leading to better thermal control over procedures – discovered in Pardis tepin Gharchak Varamin, dating back to the first middle of 5th millennium BC (Fazeli et al., 2007), the pottery industry had developed significantly. Ghirshman (1938) had said in the report of Sialk excavations that the fourth layer of the third period was accompanied by the invention of potter's wheel, while Malek Shahmirzadi (2012:23, table 1) reported in “the Sialk reconsideration project” between the years 2001 and 2005 that this era dates back to the beginning of Sialk III period.

Ahmed-Abade Kuzeh-Garan, a prehistoric site, is located in the central plateau of Iran. On the surface of the site is covered with fine painted pottery sherds which have indices of Sialk III ceramics. This site was firstly introduced by Abol-Ghasem Hatami in 2005, and was registered in National Heritage List. In winter 2013, the Author have done a systematic survey in *Ahmed-Abad* site to determine the closer relative date, which lead to this paper as a description of data and results.

2- The archaeological studies in Varamin area

Varamin area is situated at eastern parts of Rey plain and at the central Plateau of Iran (*Image 1*). The main field studies in this area have been conducted after the 1979 revolution in Iran, such as the excavations by Ahmad Tehrani Moghaddam in Shoghali and Sofali Pishvasites in 1980's and excavations by Sadegh Malek Shahmirzadi in Puienak Gharchakin 1990's (Malek Shahmirzadi, 1997), but extensively the excavations in Varamin were conducted at the beginning of 2000's. Studies in Tehran Plain by Hassan Fazeli Nashali lead to discovering the prehistoric sites such as

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² - Because of the lack of evidence for metallurgy in the central plateau of Iran sites in this period, the author prefers to use the expression ‘the Late Ruralism Age’ instead of ‘Chalcolithic Period’.

Sadegh-Abadi and Mafin-Abad (Fazeli, 2001). Moreover, the excavations such as those in Tepe Pardis Gharchakby Fazeli from 2004 to 2006 (Fazeli, 2008), in Shoghali Pishvasite in 2006 (Hessari et al, 2007), Sofalin Pishva from 2006 to 2010 (Hessari and Akbari, 2007; Hessari, 2011), and Moien-Abad Pishva from 2010 up to now by Morteza Hessari (personal communication³) and also Chaltasian site (Deh Masin), located in Varamin-Pishva road, in 2012 by Ruhollah Yousefi⁴, have greatly clarified the prehistoric archaeology of this area.

3- Systematic survey in *Ahmed-Abade Kuzeh-Garan*

Firstly, Abolghasem Hatami visited this site in 2005 and in a shorthand reported that it dates back to the 5000-1000 BC. Furthermore, he reported discovery of ashes in different parts of the site, which he knew the evidence for the existence of pottery baking or copper melting ovens (Hatami, 2006). In 2013, I asked for a permission from the ministry of Cultural Heritage of Tehran to perform a systematic field research in this site. Contrary to Hatami, I found no trail of the ashes, however the site was covered by pottery, which is probably evidence of mass production of painted pottery, which were possibly exported to the adjacent settlements.

3-1- Location of *Ahmed-Abade Kuzeh-Garan* site

At the beginning of Varamin city, traversing about 5 kilometres via Ghasem-Abad road (previously called Shah-Zadeh Mohammad), we get to Ahmed-Abade Vassat village. This village has long been a site for producing pottery and is known as *Ahmed-Abade Kuzeh-Garan* as well. In about 500 meters from the southwest of the village, within farms, is situated the archaeological site, *Ahmed-Abade Kuzeh-Garan*, which is not a private property (*Image 2*). At eastern border of this site, there is a dry watercourse with a width of about 20 meters, which farmers cultivate plants at its bed (*Image 3:1*). The dry watercourse was appeared about half a century ago because of a severe rain and flood, which is contrary to what seems to be the bed of an old river⁵. From northern parts of this site, it is excavated about 2 meters illegally (*Images 3:2; 4:1*), so that it seems at first sight as if we have confronted a hill with a height of 2 meters, but this site is, in fact, flat. As we traverse from east to west, the height of land increases. On the surface of the site, there are found a series of holes with diagonal and depth of about 1.5 to 2 meters, possibly excavated illegally (*Image 4:2,3*). 100 meters from the south of the site is flattened and ploughed by farmers, however the remaining 100 meters from the northern part is untouched, that is where we have found the most important trails of pottery (*Image 3*). There is a hand-made rectangular fovea with an area of almost 80 square meters at the southern part of the site (*Image 3:4*), and another square one with an area of 100 square meters at the eastern part, which is possibly a natural phenomenon (*Image 3:3*). When it rains, surface water runs towards the latter fovea, which at last runs towards the dry watercourse.

3-2- Methodology

In systematic survey of *Ahmed-Abade Kuzeh-Garan*, after topography, the surface of the site was gridded into squares of $10 \times 10 \text{ m}^2$, each of which was gridded into four squares of $5 \times 5 \text{ m}^2$. Larger squares were named at length by capital letters from A to Q and at width by numbers from 1 to 23, while smaller squares were named using small letters a, b, c and d. Cultural materials were collected from a and d, which comprises 50% of the entire grids. All findings were numbered and registered, and then they were entirely classified and typology (*Image 5*).

³- Not published yet

⁴- Not published yet

⁵- The inhabitants know this fact.

3-3- Cultural Materials

Most of the collected cultural materials comprised pottery sherds and a few blade-shaped stone tools. Most of these were discovered in northeastern part of the site (*Image 5*).

3-3-1- Typology of pottery

Typology has been mostly based on features such as clay colour (red and buff), manufacturing technique (hand-made and wheel-made), and delicacy (rough, semi-rough and fine). Those cases of which were pure of tempers (or non-temper), were typology in a separate type. Also, a case of pottery found with grey clay and red cover was classified as one type (*Image 6*).

Number and frequencies for each type can be observed in the pie chart (*Diagram 1*). The greater frequencies with regard to clay colour of pottery are: first, pottery with red clay, second, pottery with buff clay; larger frequencies with regard to manufacturing technique are: first, hand-made pottery, second, wheel-made pottery; larger frequencies with regard to delicacy are related to: first, fine pottery, second, rough pottery and third, semi-rough pottery (*Diagrams 2, 3, 4, 6*). Tempers were mostly from plants and minerals. The surface of most pottery were covered with firstly buff and secondly red colour. The shape of most pottery was bowl-like with a concave base, also, there were some pottery sherds belonging to crock pots with a narrow opening. Two pedestals were observed among findings as well. Moreover, parts of a small glass was found, which was one of special findings of the Sialk III₁₋₃ period and were very essential in determining the exact chronological order (*Tables 1 and 2*). More than 70% of painted pottery were covered with vegetable and geometric motives such as horizontal zigzag shapes, straight lines, vertical and horizontal wavy lines, big horizontal zigzag shapes or big shaded wavy strips, rhombic lattice, raster or rhombic designs. There were also found designs such as vertical wavy snakes, sun, flowers, animals similar to donkey or maybe birds (not clearly distinguished) and a drawing like legged snake. All of these drawings were indices of Sialk III (*Diagram 5*).

3-3-2- Stone tools

In this survey, there were found some examples of very little small blade-shaped stone tools made of flint and chert in different colours, which date back to the Late Ruralism Age. On these tools were observed abrasion, which were probably appeared because of the agricultural tools. Tools of this age are not of high quality with regard to shape and material, especially when sources of obsidian stones are very far, materials made out of this type are very rare (*Image 7*).

3-4- Comparative analysis of data

Features concerning the samples of *Ahmed-Abade Kuzeh-Garan* pottery were similar in sites of Shoghali Pishva, Pardis Gharchak and Chaltasian Pishva with regard to vegetable and zigzag-shape motives. Similar samples were found in tepe Ghabristan of Ghazvin plain, tepe Hissar of Damghan area, Cheshmeh-Ali of Rey plain, Sialk's southern Tepe of Kashan area, which indicate the extensive influence of this culture during 5th and 4th millennia BC (*Tables 3 and 4*).

3-5- Chronological analysis

Experiments on the surface cultural material from *Ahmed-Abade Kuzeh-Garan* site – especially pottery – indicate that all these materials belong to the Sialk III period. Among pottery, some supposedly belong to older periods, however because of a lack of enough indexical features, it is not possible to opine about their exact time (*Table 5*).

4- Conclusion

The archaeological site, *Ahmed-Abade Kuzeh-Garan* with about an area of 2 hectares, is situated at 3 km from the west of Varamin city and 500 m from the southwest of Ahmed-Abade Vassat village called *Kuzeh-Garan*. After performing a systematic survey via gridding the surface and collecting samples from half of the grids, it was showed that these were relics of a single period overlapping the Sialk III period. Sampled pottery were mostly red-clay, fine, hand-made and painted, features of which determine indices of this period. Moreover, because of a lack of special findings of older or later periods, it is impossible for this site to be dating another ages. All of stone tools date back to this period as well. Therefore, the site has been populated from about 4300 BC to about 3400 BC, and belongs to the Late Ruralism Age or Chalcolithic period (Table 6).

5- Acknowledgments

I have benefited from support and cooperation of Dr. Morteza Hessari, Mr. Hassan Akbari and my good friends, Hamid Karami and Farbod Hadji, for which I am very thankful. Also, I would like to thank Rosa Kowsari because she was my colleague from beginning to the end of this research.

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Images, Diagrams and Tables

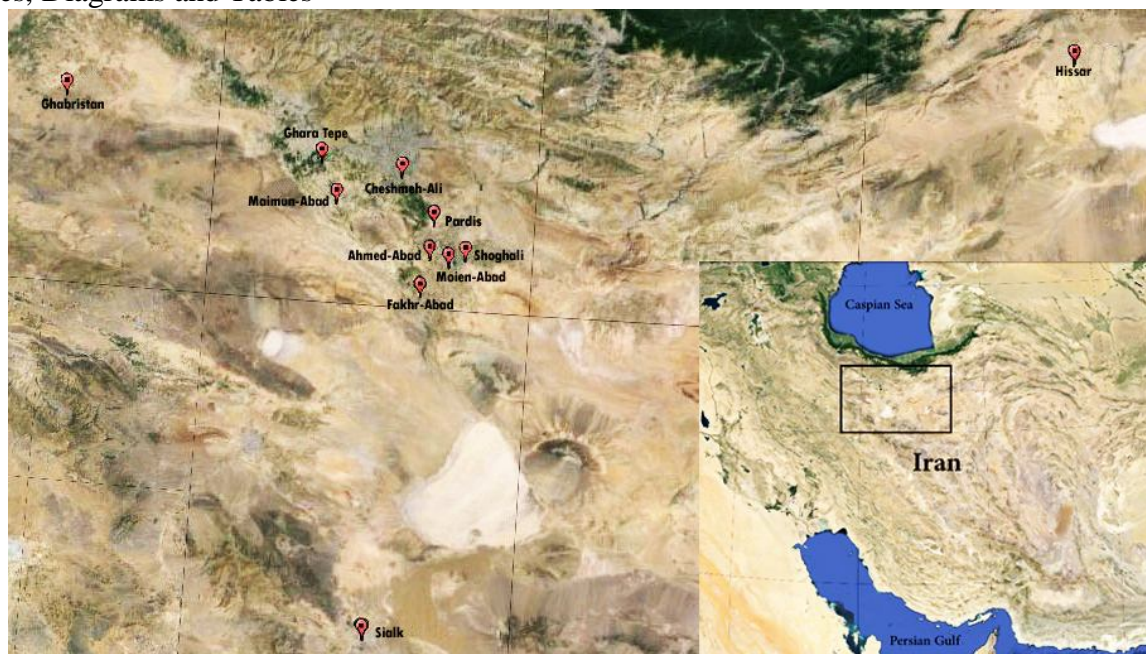


Image 1- Map of important prehistoric sites of the central plateau of Iran (by B. Shaikh Baikloo).

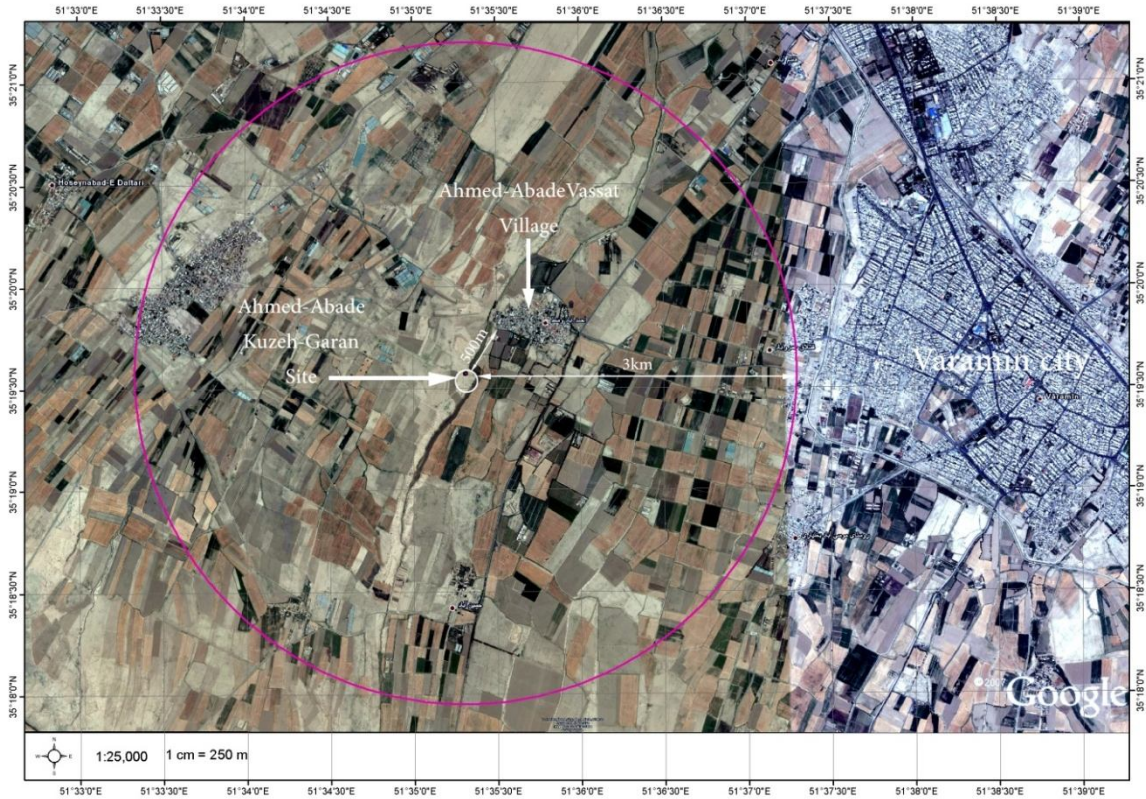


Image 2- Location of Ahmed-Abade Kuzeh-Garan site (by B. Shaikh Baikloo).



Image 3- Aerial image of Ahmed-Abade Kuzeh-Garan site; dry watercourse (1), excavation of the north of the site (2), natural fovea (3), hand-made rectangular fovea (4) (by B. Shaikh Baikloo).



(1)



(3)



(2)

Image 4- Illegal excavation of the north of the site (1) and two holes on the northeast (2) and the north (3) of the site (by B. Shaikh Baikloo).

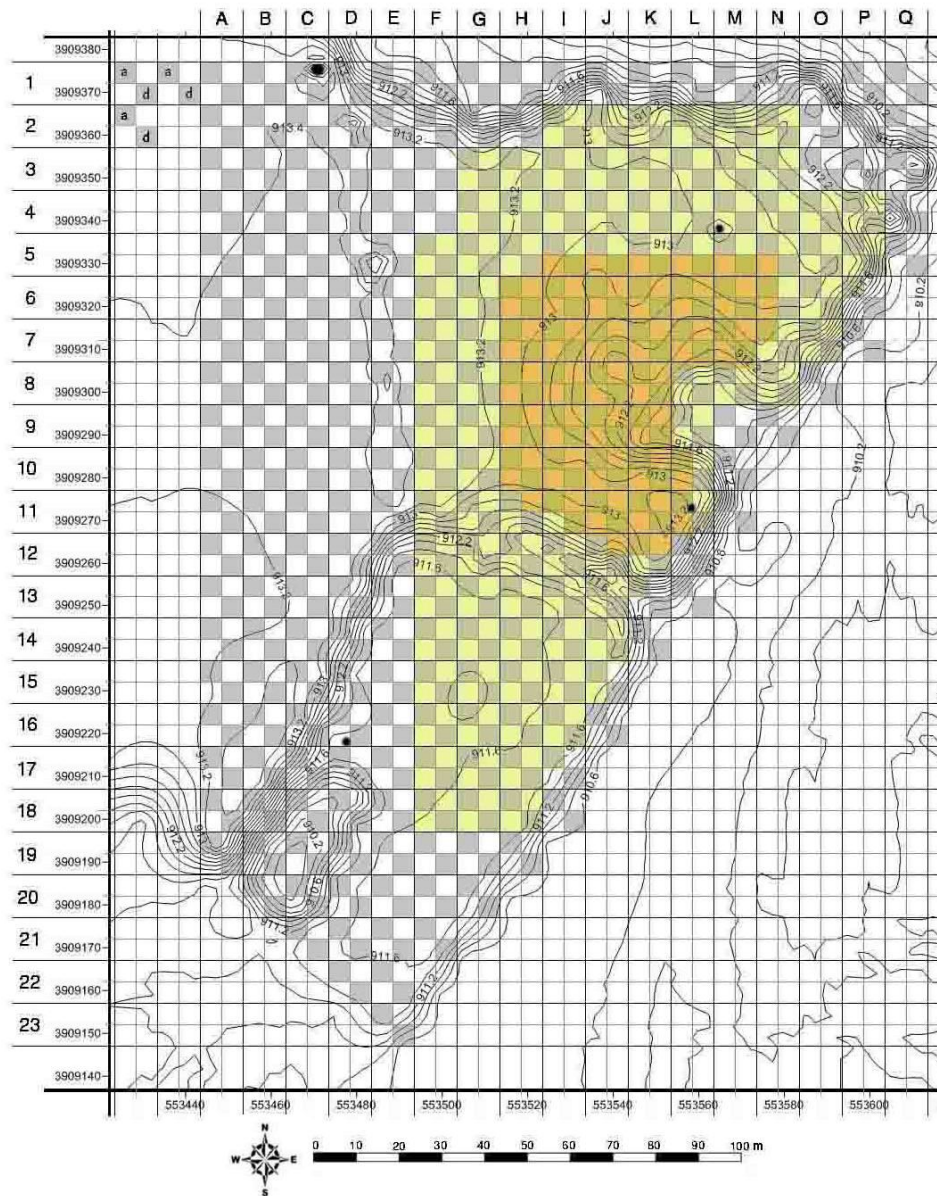


Image 4- Topography of Ahmed-Abade Kuzeh-Garan site. Most of the culcral materials were foundon part in orange, and with fewer frequency on part in yellow(by B. Shaikh Baikloo).



Image 5- Pottery sherds of Ahmed-Abade Kuzeh-Garan site; type 13(by B. Shaikh Baikloo).



Image 6- Stone tools of Ahmed-Abade Kuzeh-Garan site(by B. Shaikh Baikloo).

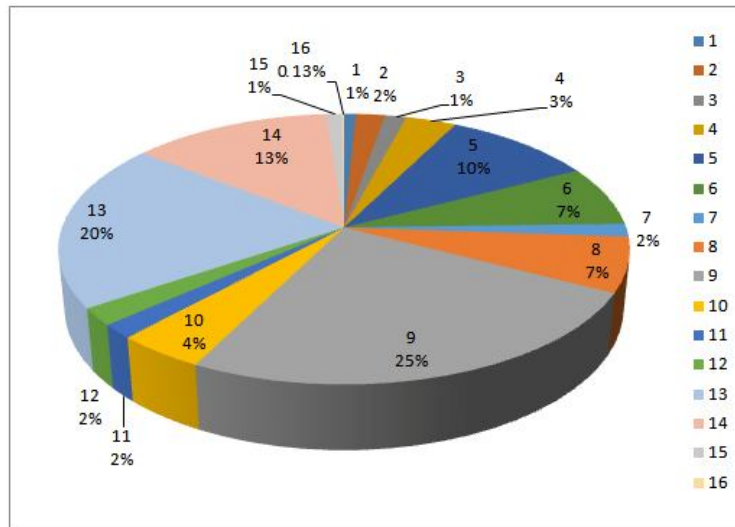


Diagram 1- The frequency of pottery types: (1) buff clay, semi-rough, wheel-made; (2) buff clay, semi-rough, hand-made; (3) red clay, semi-rough, wheel-made; (4) red clay, semi-rough, hand-made; (5) buff clay, rough, hand-made; (6) red clay, rough, hand-made; (7) red clay, rough, hand-made; (8) red clay, fine, wheel-made; (9) red clay, fine, hand-made; (10) red clay, fine, hand-made, non-temper; (11) red clay, fine, wheel-made, non-temper; (12) buff clay, fine, hand-made, non-temper; (13) buff clay, fine, hand-made; (14) buff clay, fine, wheel-made; (15) buff clay, fine, wheel-made, non-temper; (16) gray clay, semi-rough, hand-made (by B. Shaikh Baikloo).

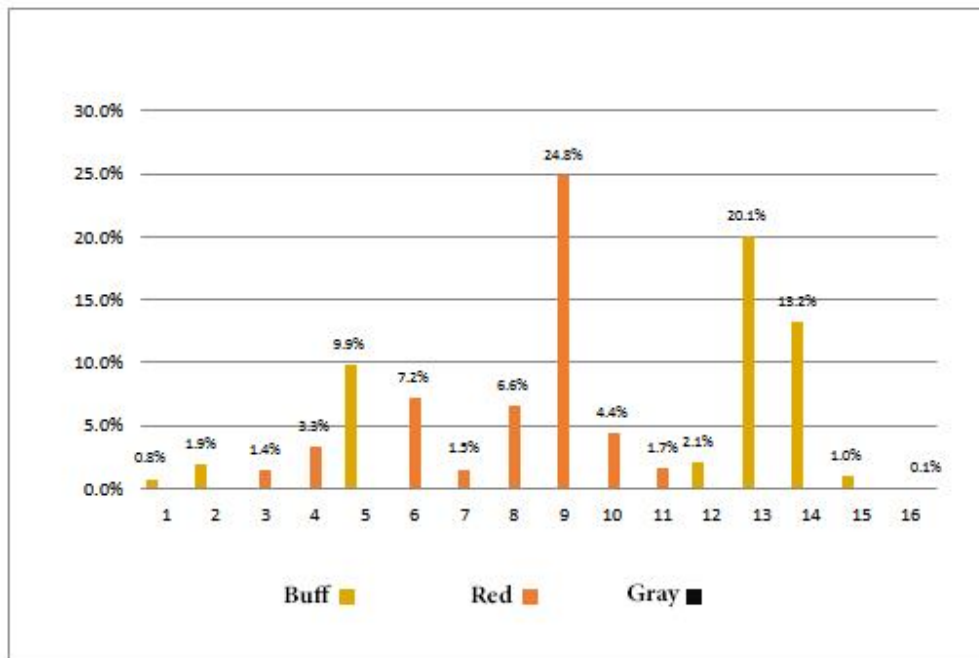


Diagram 2- The frequency of clay colour of pottery (by B. Shaikh Baikloo).

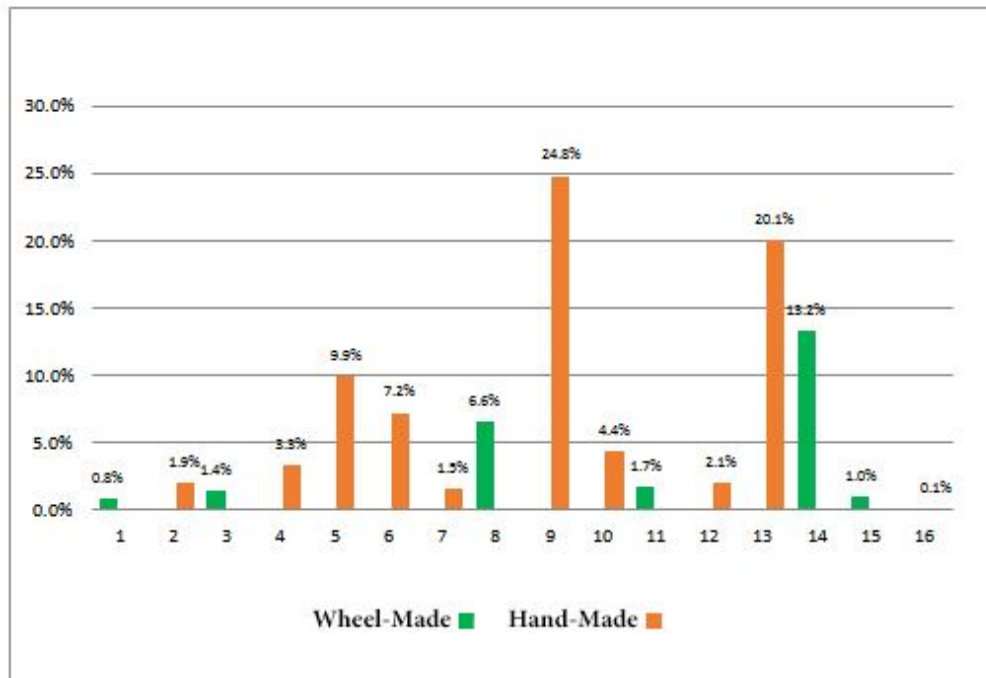


Diagram 3- The frequency of the type of manufacturing technique of pottery (by B. Shaikh Baikloo).

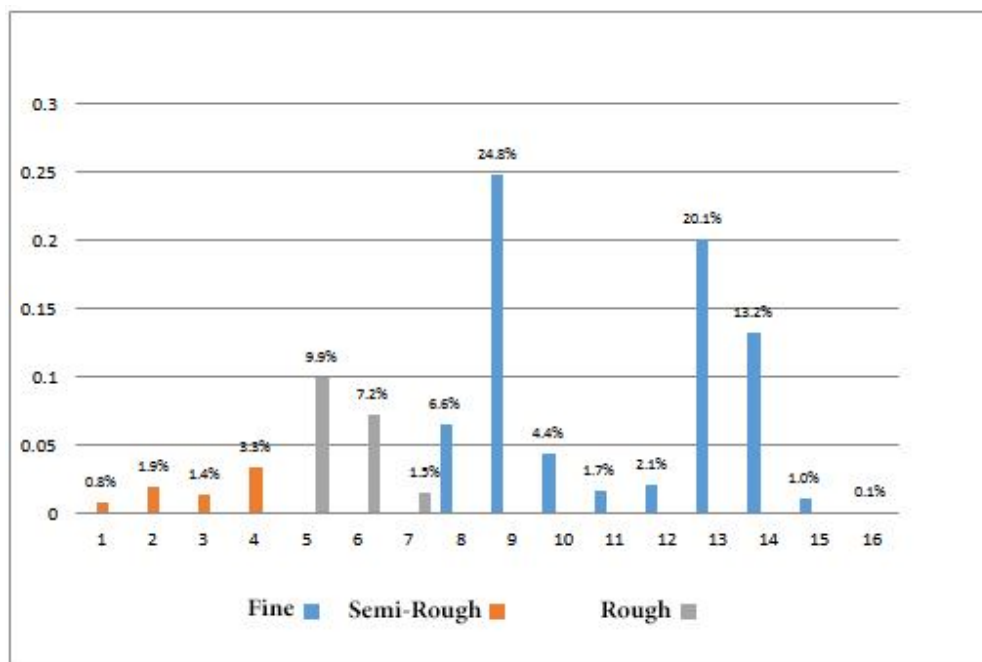


Diagram 4- The frequency of delicacy rate of pottery (by B. Shaikh Baikloo)

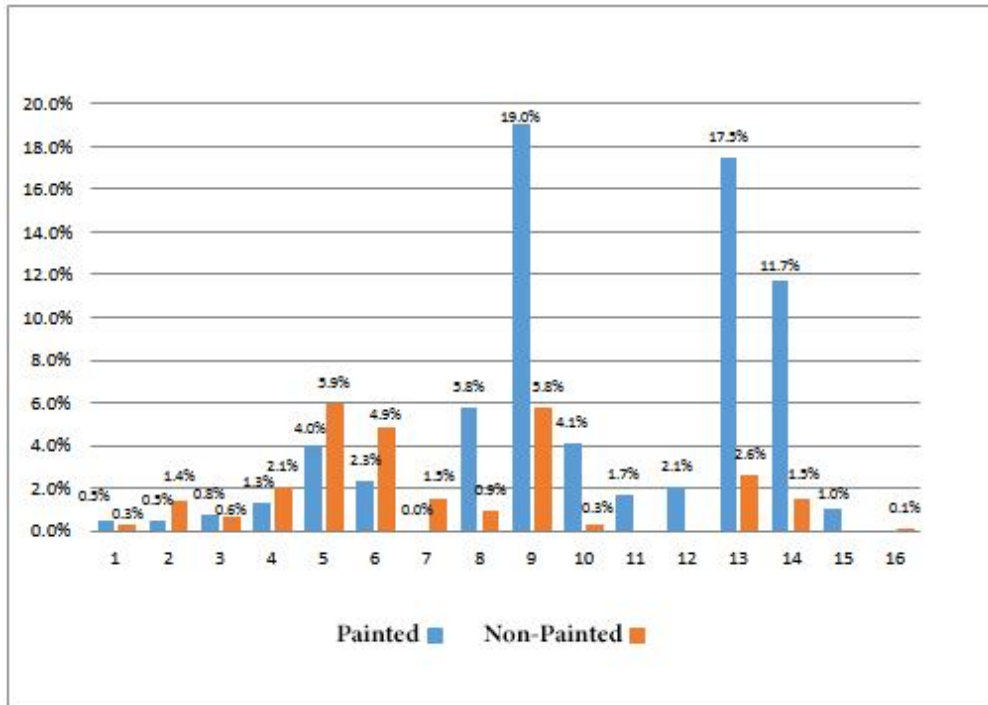


Diagram 5- The frequency of painted pottery and non-painted pottery (by B. Shaikh Baikloo).

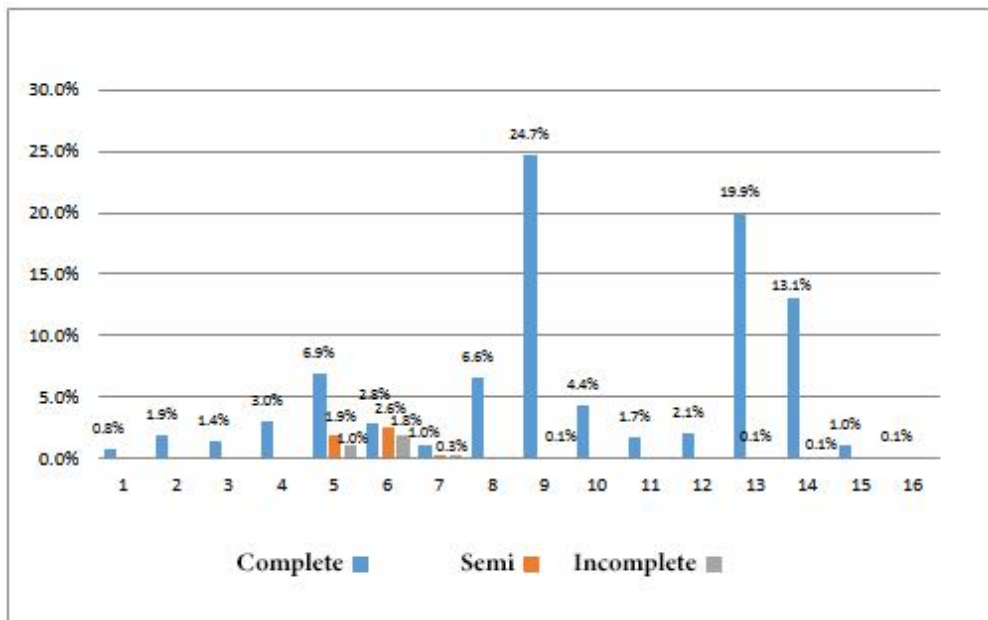


Diagram 6- The frequency of firing rate of pottery (by B. Shaikh Baikloo).

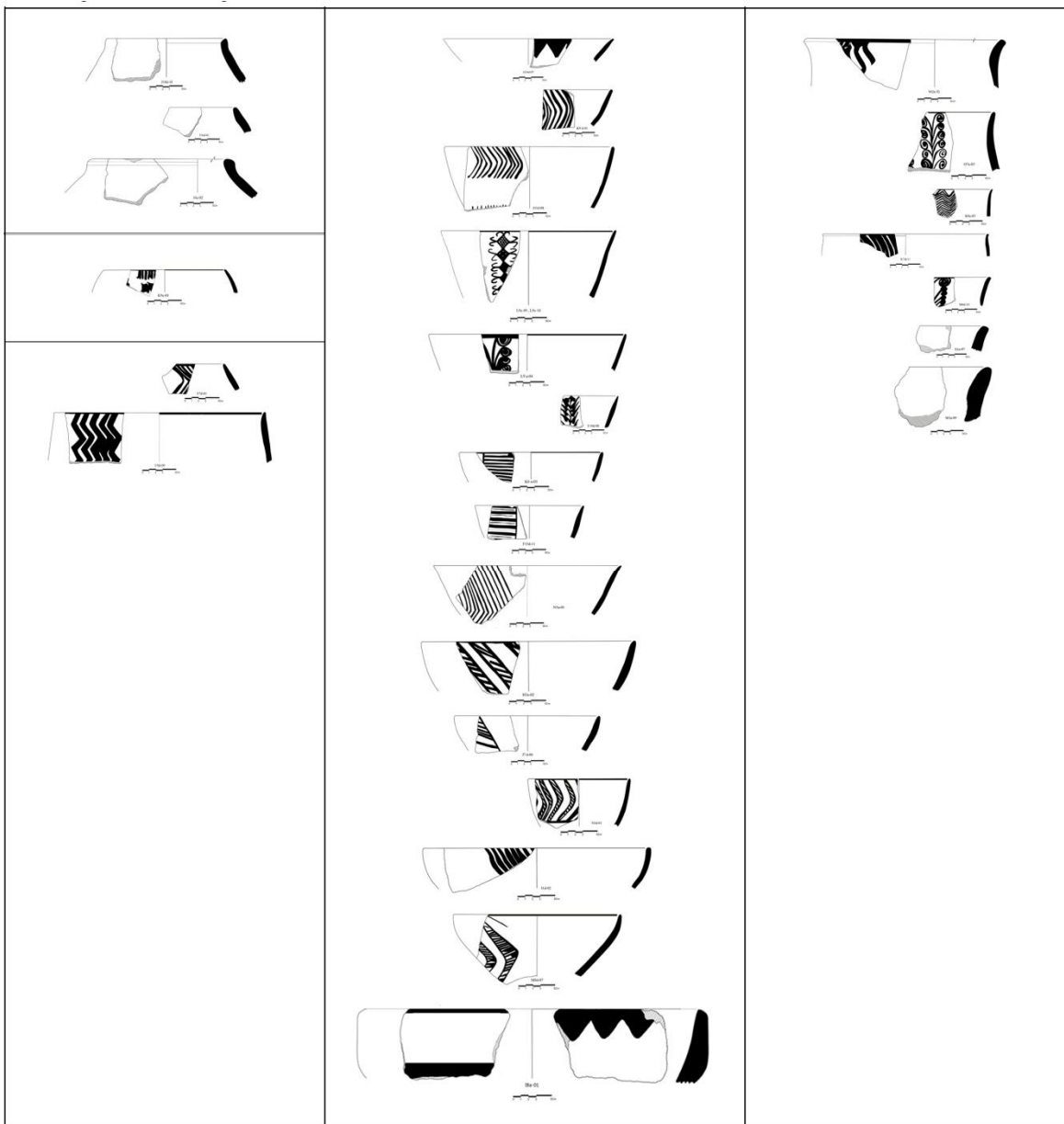


Table 1- the form of pottery with wide opening and narrow opening (by B. Shaikh Baikloo)

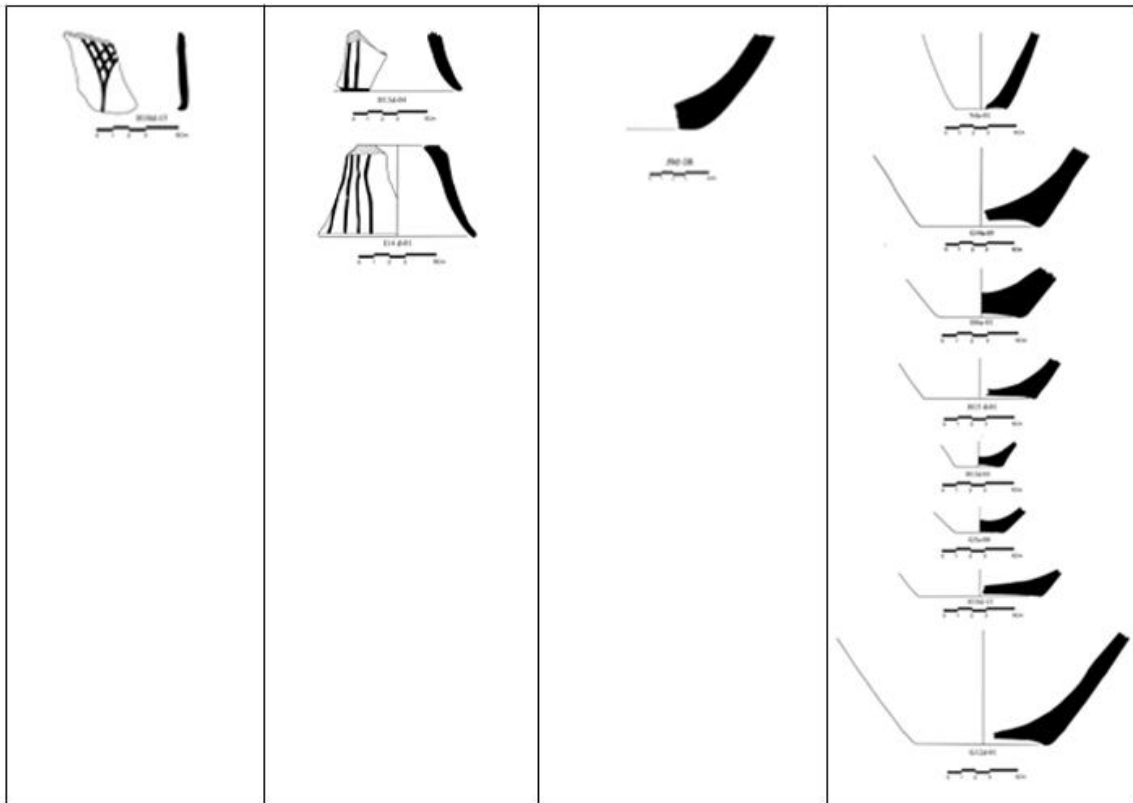


Table 2- The form of pottery with concave base, flat base, pedestal and a part of body of a glass which is indice of Sialk III_{1,3} (by B. Shaikh Baikloo).


































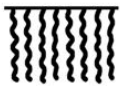




Ghabristan	Cheshmeh-Ali	Hissar	Shoghali	Sialk	Ahmed-Abade Kuzeh-Garan
 1				 1	
	 1		 1	 2	
				 3	
 2	 2	 1			
 3	 3			 4	
 4	 4		 2	 5	
 5	 5	 2	 3	 6	
 6	 6	 3	 4	 7	
	 7		 5	 8	

Table 3- Comparative table of pottery motives (by B. Shaikh Baikloo).

For Sialk: Ghirshman, 1938, Pl. 63, S.368 (1), Pl. 65, S.1822 (2), Pl. 62, S.1693 (3), Pl. 76, A19 (4), Pl. 76, D3 (5), Pl. 66, S.1766 (6), Pl. 64, S.1782 (7), Pl. 62, S.395 (8); For Shoghali: Hessari et al., 2007, Pl. 8, 96 (1), Pl. 4, 11 (2), Pl. 6, 56 (3), Pl. 3, 4 (4), Pl. 3, 1 (5); For Hissar: Schmidt, 1937, Pl. IX, H3478 (1), Pl. XXII, H4676 (2), Pl. XI, H3474 (3); For Cheshmeh-Ali: Isfandiari, 1999, drawings 76 (1), 97 (2), 89 (3), 58 (4), 88 (5), 80 (6), 70 (7); For Ghabristan: Majidzadeh, 1976 (1 and 4), Fazeli, 2006, P. 178, 11 (2), P. 154 (3), P. 188, 41 (5), P. 188, 43 (6).


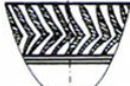

































Ghabristan	Cheshmeh-Ali	Hissar	Shoghali	Sialk	Ahmed-Abade Kuzeh-Garan
			 1	 1	
		 1		 2	
 1	 1	 2	 2	 3	
	 2				
 2	 3		 3	 4	
 3	 4	 3	 4	 5	
 4			 5	 6	
		 4			
	 5		 6	 7	

Table 4- Comparative table of pottery motives (by B. Shaikh Baikloo).

For Sialk: Ghirshman, 1938, Pl. 63, S.1807 (1), Pl. 76, D21 (2), Pl. 77, A16 (3), Pl. 78, A1 (4), Pl. 64, S.1777 (5), Pl. 79, B8 (6), Pl. 78, D16 (7); For shoghali: Hessari et al. 2007, Pl. 7, 68 (1), Pl. 4, 1 (2), Pl. 5, 25 (4), Pl. 6, 56 (5), Pl. 5, 26 (6), The archaeology institute of Tehran university site (3); For Hissar: Schmidt, 1937, Pl. XXII, H4549 (1), Pl. V, DG69, 6.5.32 (2), Pl. XXII, H4350 (3), Pl. XXII, H4569 (4); For Cheshmeh-Ali: drawings 63 (1), 77 (2), 71 (3), 60 (4), 91 (5), 111 (6); For Ghabristan: Fazeli, 2006, P. 196, 85 (1), P. 161 (3), P.184, 29 (4), Majidzadeh, 1976 (2).

	<p>Sialk III1-3 Pottery in Ahmed-Abade Kuzeh-Garan</p>
	<p>Sialk III4-5 Pottery in Ahmed-Abade Kuzeh-Garan</p>
	<p>Sialk III6-7b Pottery in Ahmed-Abade Kuzeh-Garan</p>

Table 5- Relative chronology of Ahmed-Abade Kuzeh-Garan based on pottery form and motif (by B. Shaikh baikloo).
For Sialk III6-7b: Kowsari, 2014.

Ghazvin Region	Damghan Region	Varamin Region	Ray Region	Kashan Region	Dating (BC)	Ruralism Periods
Ghabristan Ismael-Abad Ozbeki	Hissar Ic	Ahmed-Abad Shoghali Sofalin Chaltasian	Cheshmeh-Ali Sadegh-Abadi Maimun-Abad Mahdi-Khani	Sialk III6-7b	3700-3400	Late Ruralism
Ghabristan Ozbeki	Hissar Ib	Ahmed-Abad Shoghali Pardis	Cheshmeh-Ali Sadegh-Abadi Mahdi-Khani Morteza-Gerd	Sialk III4-5	4000-3700	
Ghabristan Ozbeki Ibrahim-Abad	Hissar Ia	Ahmed-Abad Shoghali Pardis Fakhr-Abad Pouinak	Cheshmeh-Ali Sadegh-Abadi Mahdi-Khani Morteza-Gerd	Sialk III1-3	4300-4000	
Zagheh Ozbeki Ibrahim-Abad	Shir-Ashian Delazian Ghoumes Khourian Chakhmagh	Shoghali Pardis Pouinak Moien-Abad	Cheshmeh-Ali Sadegh-Abadi Mahdi-Khani Ghara Tepe	Sialk II	5000-4300	Middle Ruralism
Zagheh Ozbeki Ibrahim-Abad	Chakhmagh	Shoghali Pardis Moien-Abad	Cheshmeh-Ali Sadegh-Abadi	Sialk I	5300-5000	Early Ruralism
Chahar-Boneh	Chakhmagh		Mehran-Abad	Shourabeh	5300-6000(?)	Archaic Ruralism

Table 6- Chronology of different regions of the central plateau of Iran (by B. Shaikh Baikloo).

For datings (BC): Malek Shahmirzadi, 2012, P. 32, Table 1.