

Excavations in Square X in the ERA of Shahr-i Sokhta: Pottery Traditions and Cultural Interaction during Period I (ca. 3550-3000 BC)

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1. Introduction

The *ERA* (*Eastern Residential Area*) of Shahr-i Sokhta was the nucleus of the city during Periods I, II, and III for over 1000 years (Salvatori - Tosi 2005: fig. 12). This part seems to be the only section with evidence of the town's foundation (Vidale - Salvatori 1997; Sajjadi - Moradi 2014). The excavations conducted by ISMEO in the *ERA* focused on Periods II and III (Tosi 1983: 102). The earliest period of human occupation of the site is one of the most ambiguous and obscure of the four known periods. Although previous excavations revealed useful archaeological data, they covered only 25 m² of the deepest layers and cannot provide appropriate indicators for examining this period. Since 1978, when the results of the excavations in the *ERA* were published (Amiet - Tosi 1978), our knowledge has been limited to very limited information regarding the layers of Period I.

Initially, the excavations conducted by the Iranian Archaeological Expedition also focused on Periods II-III, later examining Period IV in the central and

northern parts of the settlement (Sajjadi - Moradi 2017). It was only in the last two campaigns that attention was paid to the *ERA*, which was more likely to yield information about the older periods and establishment phases of Shahr-i Sokhta. It seemed that the only place to reach the earliest layers, and Phases 9 and 10 in particular, was the western part of the *ERA* (Amiet - Tosi 1978: 9).

Two Workshops, no. 34 and 35, were excavated for the first time and workshops nos. 4 and 10 were excavated again (Sajjadi - Moradi 2020: 717). Workshop no. 35 is located inside one of the rooms of the House of the Stairs in square XIN (Tosi 1983: 107) (Fig. 1).

In this article I am discussing the results from these excavations with first presentation of the archaeological contexts based on the materials we found. These materials confirm the 'multi-cultural' character of Period I and wide interactions with the other areas in south east of Iran.

2. Excavation of layers pertaining to Phases 10 and 9 of Period I

Workshop 4

Workshop 4 is located in the south-eastern section of the *ERA*, and about 200 meters northeast of the *Burnt Building*. It was first excavated in 2001 with focusing on upper layers relating to period II-III. Findings in this workshop included a number of seal impressions, pottery fragments and a complete skeleton of a quadruped animal, probably a mule. A deep trench 6×4 m was excavated in a point where the architectural evidence appeared to be concentrated, digging down until the sterile layer was reached. The vertical distribution of cultural materials indicates eight architectural layers. In the upper layers, 1, 2, and 3, the architectural remains are denser and more regular. Some spaces in the lower layers were filled with household trash such as charcoal, pottery sherds, ash and bone, and there is evidence of heating and burning, particularly in layers 6, 7, and 8. The mud bricks with traces of straw in the upper layers follow the standard structure and measurements of mud bricks in Periods I and II (Mariani 1992: 414) but the mud bricks of layer 8 were probably made from pure lacustrine clay.

The materials related to Phase 9 lie in a layer 1.5 m. thick. This thickness is rare and the layer includes only Phases 9-10. An analogous layer is also present in Workshops 35 and 34 (Fig. 2).

Workshop 10

Workshop 10, excavated for the first time in 2007, is located on the north-eastern edge of the ERA, outside the Shahr-i Sokhta grid system. The initial dimensions of this trench were 10×2 m. The finds included Phase 8 and late Phase 9 pottery fragments, mostly painted Buff and Emir Grey Ware (Sajjadi 1998; 2019), figurines, seal impressions, and clay tokens (Fig. 3) (Tab. 1).

N°	Paste Colour	Body	Cover	Slip Colour	Paint Colour	Style
1	Buff	Buff	Slipped	Buff	Brown	Local
2	Red	Red	Washed	Red	Dark brown	Kerman type
3	Buff	Buff	Slipped	Buff	Brown	Local
4	Buff	Buff	Slipped	Buff	Brown	Nal
5	Buff	Buff	Slipped	Buff	Brown	Local
6	Buff	Buff	Slipped	Buff	Brown	Namazga III
7	Buff	Buff	Slipped	Buff	Brown	Local
8	Reddish	Buff	Slipped	Buff	Brown	Local
9	Buff	Buff	Slipped	Buff	Brown	Local
10	Buff	Buff	Slipped	Buff	Brown	Local
11	Buff	Buff	Slipped	Buff	Brown	Local
12	Buff	Buff	Slipped	Buff	Brown	Local
13	Buff	Buff	Slipped	Buff	Brown	Local

Tab. 1: description of Workshop 10 ceramics (see also Fig. 3).

Workshop 35

The spaces chosen for excavation in Workshop 35, west of the *House of the Stairs*, had already been excavated by IsMEO down to the layers of Phase 7 (Fig. 4). These included Room 88 inside square XIB, related to the second construction stage of the House of the Stairs (Mariani 1992: 192), and Room 88a inside square XVD at the end of Street 1 of the ERA. The pottery from this trench



Fig. 1: location of workshops 10, 34, 35.

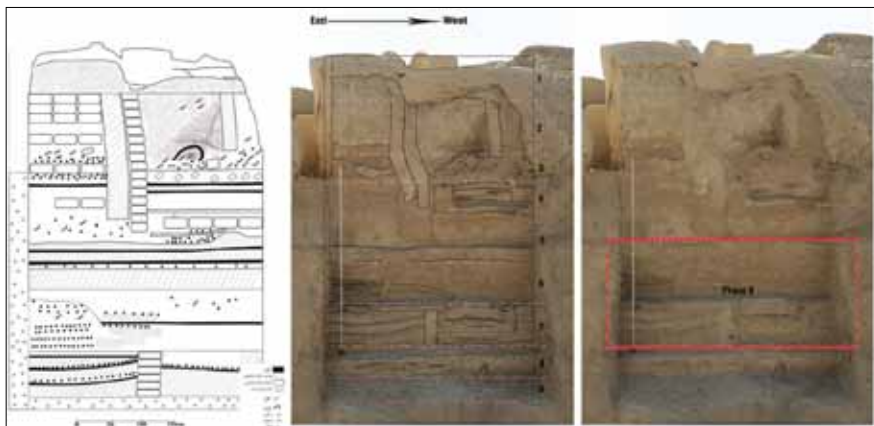


Fig. 2: Workshop 4, vertical cut.

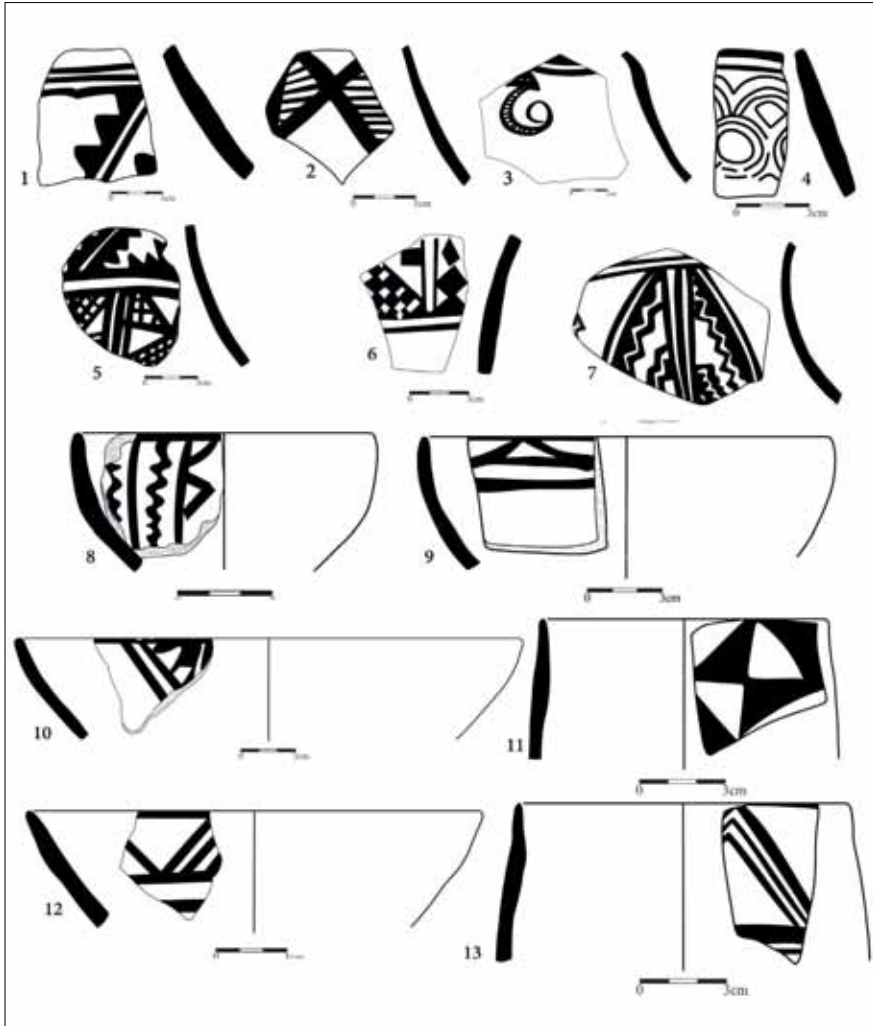


Fig. 3: Workshop 10, pottery.

includes Buff Ware characterized by a brick-color paste and a buff slip, as well as Red Ware and Gray Ware. Buff Ware includes both Local Buff Ware typical of Shahr-i Sokhta and Quetta Ware, which connects to the Quetta Valley in Pakistan, while Gray Ware relates to ceramic vessels recorded in the Bampur Valley and southwestern Pakistan (Fig. 5). Clay items including clay balls, sling pellets, and seal impressions, as well as zoomorphic figurines were found in this test-trench that are similar to those from the Period II layers that may be mixed with the pottery assemblage from lower layer due to high slope of this part of the mound. Stone tools were also recovered.

Excavation in Room 88

The upper layers of Room 88 are associated with Phases 5, 6 and 7, and had been excavated by IsMEO as part of the *House of the Stairs* (Tosi 1983: 109). The new excavations in this space showed three layers, two pertaining to the later phases, and one with an archaeological deposit 160 cm thick related to Phase 9.

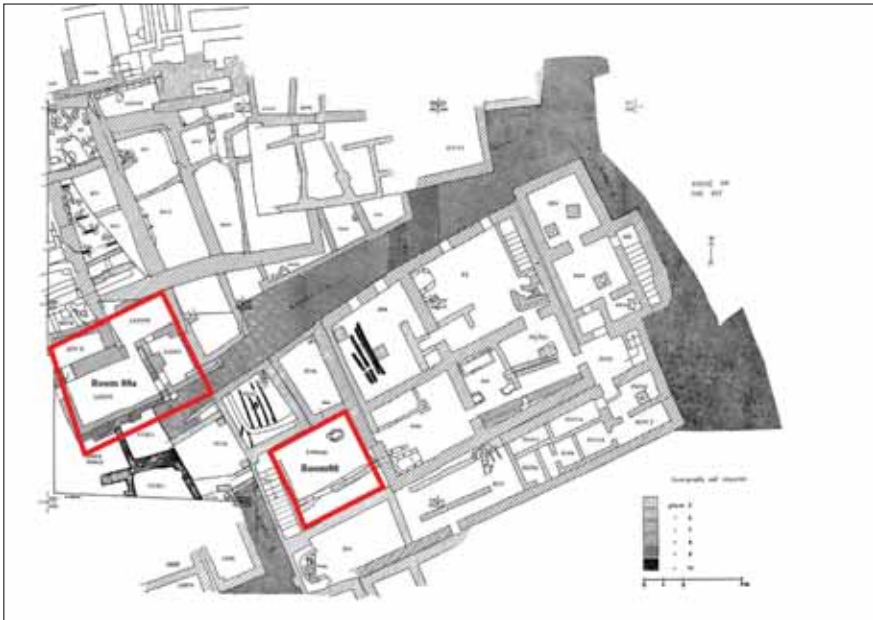


Fig. 4: Plan of ERA in phase 7 and position of excavated rooms (Mariani 1992: fig. 22.5).

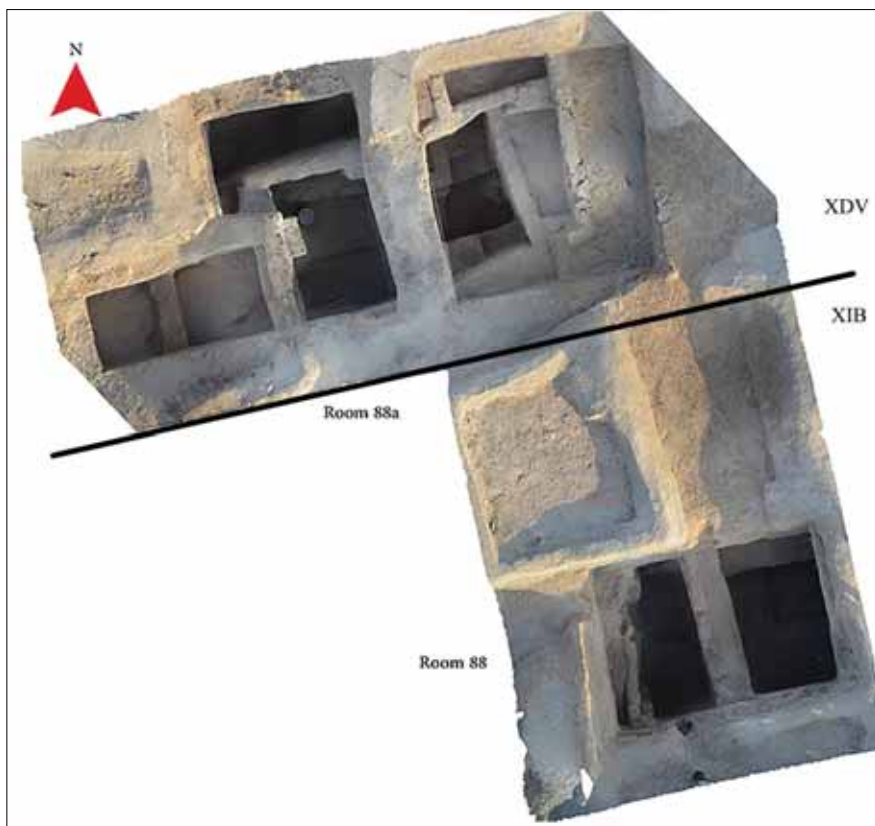


Fig. 5: Workshop 35, ortophoto of rooms 88 and 88a.

The latter, which was excavated down to sterile soil, contained no architectural evidence (Fig. 6). The 160 cm thickness of the deposit is considerable, since the total thickness of Period I was estimated to be about 200 cm (Amiet - Tosi 1983: 18).

The first layer of Room 88 in the *House of the Stairs* is related to Phases 5 and 6 of Period II. The pottery of this layer consists of fragments of pear-shaped beakers and hemispherical bowls with crosshatched triangular motifs on the internal surface and linear staircase motifs on the outside. The second layer is separated from this layer by a gap filled with fine sand. The pottery in the second

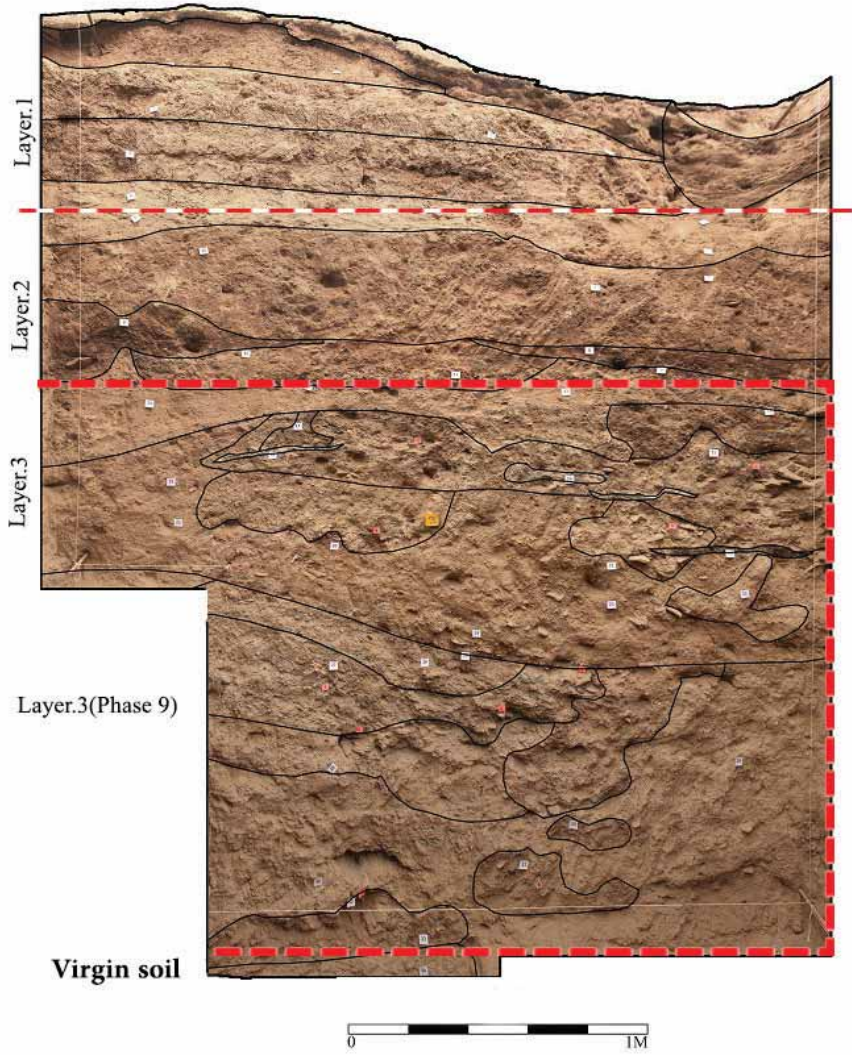


Fig. 6: Workshop 35, XIB. Vertical cut on Eastern wall room No. 88.

layer includes common forms related mostly to Phase 8 such as cylindrical beakers and other simple shapes such as conical bowls with linear and wavy bands inside them. More complicated shapes such as pear-shaped beakers, which require higher skills and fast wheels (Vidale 1984: 82), were not found in this layer. The third layer contained a limited number of common ceramic shapes including tall open bowls and plain wide bowls.

The third layer is the main excavated layer in this section with a 150 cm-thick archaeological deposit and no architectural evidence. Fragments of large-bodied animals such as cattle, long wooden ceiling poles, cylinder seal impressions with four-petalled flower motifs and pottery sherds were found. The pottery of this layer can be categorized into Buff, Grey, and Red Ware in declining order of abundance. Buff Ware is generally made by hand or slow wheel and its forms are limited to conical open bowls and spherical jars with an everted rim. Some of these have ear-shaped handles that are similar to Jemdet Nasr specimens (Matthews 1989: fig. 12.2). Other forms found here include beakers and tub-shaped vessels. The frequency of open forms in this layer indicates the use of slow wheels. The pottery is fine and the geometrical motifs are reminiscent of the simplified motifs of the Quetta and Namazga III styles (Biscione 1974: 134) (Fig. 7: 10-12).

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Style
1	Buff	Buff	Slipped	Buff	Brown	Nal
2	Buff	Buff	Slipped	Buff	Brown	Local
3	Buff	Buff	Washed	Buff	Brown	Nal
4	Buff	Buff	Washed	Buff	Brown	Local
5	Buff	Buff	Washed	Buff	Brown	Local
6	Buff	Buff	Washed	Buff	-	Jemdet Nasr
7	Buff	Buff	Washed	Buff	Brown	Namazga III
8	Reddish	Buff	Washed	Buff	Brown	Local
9	Buff	Buff	Washed	Buff	Brown	Local
10	Buff	Buff	Slipped	Buff	Dark Brown	Namazga III
11	Buff	Buff	Slipped	Buff	Dark Brown	Namazga III
12	Buff	Buff	Slipped	Buff	Brown	Namazga III

Tab. 2: description of Room 88 ceramics (see also Fig. 7).

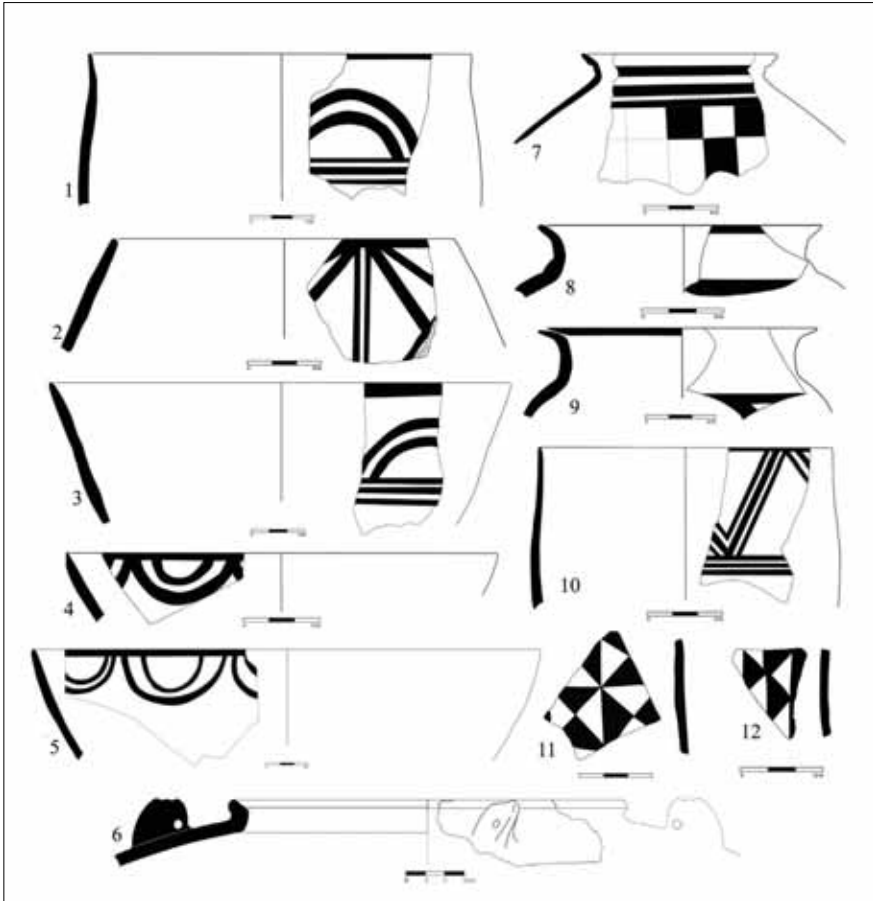


Fig. 7: Workshop 35, Square XIB, Room 88, Layer 3. Pottery fragments.

Wide-mouthed bowls with wavy line motifs under the rims are quite common in layer 3, and there are Grey Ware vessels with crisscross motifs inside them (Mutin 2007: fig. II.278, 12-14) similar to Khurab Grey Ware (Biscione 1974: 134). Unlike the later phases of the ERA and Building 1, the objects in this workshop are limited to clay figurines, clay tokens, bone tools and seal impressions with simple and linear geometric motifs, mostly from cylinder seals, and four-petalled flower motifs (Fig. 8). Similar motifs are also found in sites such as Susa (Amiet

1972: pl. 26); Tall-e Malyan (Pittman 1997: fig. 4a) and Umm Al-Nar, dated to around 3000 BC.

Excavation in Room 88a

Room 88a is located inside square XDV west of Room 88 at the end of Street 1 (Fig. 9). Excavation in this room continued down to sterile soil and 7 consecutive layers were found (Fig. 10). The pottery of layer 1 consists of wheel-made Buff Ware with the same shapes and paints as Periods II and III: pear-shaped beakers, long-necked jars and open conical bowls decorated with wavy lines. A square stamp seal with two squares and a circle incised in the centre was also found in this layer (Fig. 11). The pottery of layer 2 is analogous to that of layer 1, but it displays some of the common motifs of the lower layers, mostly staircase lines and geometric shapes.

The third layer is the main layer in this room but not the oldest. Traces of this layer can be observed throughout this square. The architectural remains include

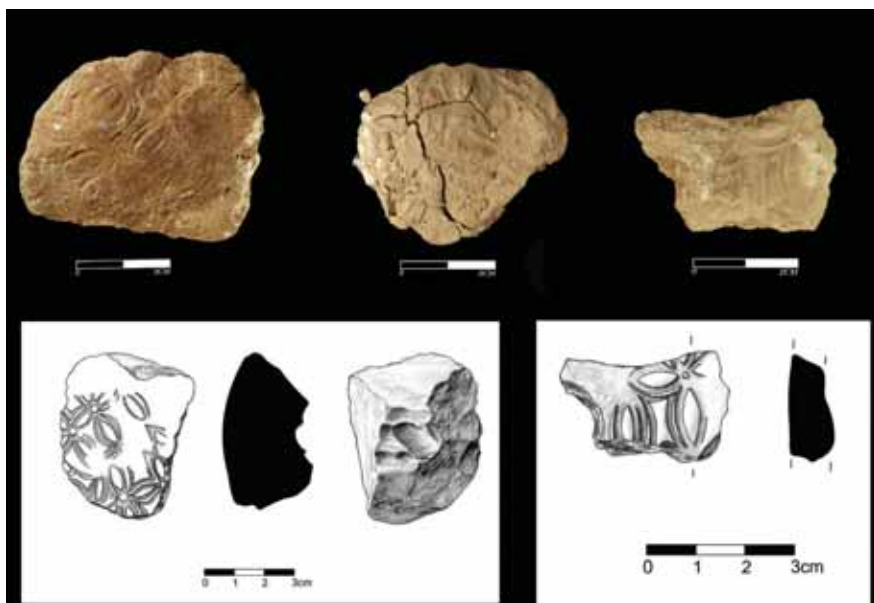


Fig. 8: Workshop 35, Square XIB, Room 88, Layer 3. Seal impressions.

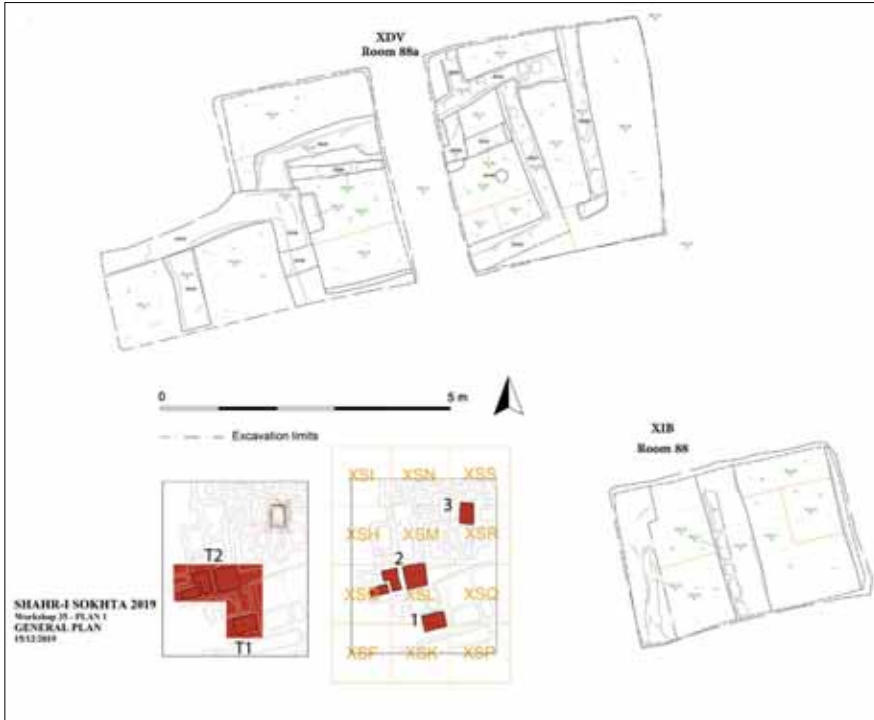


Fig. 9: Workshop 35. Squares XDV and XIB. Rooms 88 and 88a (drawing G. A. Minaya).

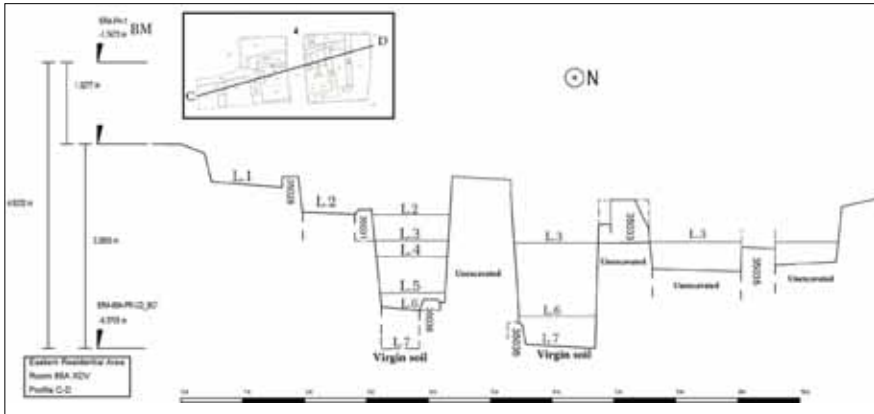


Fig. 10: Workshop 35, Square XDV. Room 88a.



Fig. 11: Workshop 35, Room 88a, layer 1, stone stamp seal.

two separate rectangular spaces surrounded by thinly plastered walls. The layer is about 100 cm thick. The plastered walls probably belong to the late centuries of the 4th millennium BC or late Phase 9, and were constructed using only one row of mud bricks 20 cm thick (Fig. 12). In the pottery assemblage of this layer, there are significantly fewer simple linear geometric motifs but more wavy stripes underneath the rim and wavy lines on the body. Simple open vessels are common. Both forms and motifs are characteristic of the early 3rd millennium BC (Fig. 13).

With respect to layer 2, some motifs such as crosshatched triangles under the rim and geometric designs are more common. A large number of anthropomorphic and zoomorphic figurines including cattle and seated men and women are among the findings in this layer. The diversity of styles, especially in the human figurines, is a prominent feature. Some female figurines are reminiscent of the South Turkmenistan Style (Fig. 14: 3; 15) (Shirazi 2007: fig.11).

The archaeological remains of the fourth layer, found only in Space 2 in Room 88a, are about 40 cm thick. Most of the pottery in this layer corresponds to Phase 9. The form and thickness of the vessels, as well as the fine buff paste, suggest the use of a fast wheel, although there are handmade vessels too. Motifs include thick lines, solid triangles and in some cases the paint is covered by a thick buff slip. The jars are spherical and neckless, similar to those with ear-like handles.



Fig. 12: Workshop 35, Square XDV. Room 88a.

Two fragments from this layer are analogous to Namazga III, and one painted jar with Quetta motifs and an ear-like handle is similar to Jemdet Nasr ware (Fig. 24, No. 1). The variety of unearthed objects was much higher here than the other layers, and the anthropomorphic figurines are highly diverse. (Figs. 14-15). Another interesting object found in this layer is a cylinder seal impression with the four-petalled flower of the Proto-Elamite period (Fig. 16) (Amiet - Tosi 1978: fig. 6.15). Clay tokens and cattle figurines are also worth mentioning.

The layer 5 deposits were found in a restricted space with few architectural elements. Layer 5 contains two very small walls in the north-western corner of the space. Among the pottery fragments found in this layer is a large quantity of painted ware similar to Namazga III and Quetta ceramics (Fig. 13: 13-15). This kind of pottery is more abundant here than in the upper layers, and the variety and craftsmanship of the motifs are outstanding. The motifs and forms of layer 4 are still present, but there is much more painted pottery than simple pottery. The vessels are made by hand or slow wheel, and there is no trace of rendering with

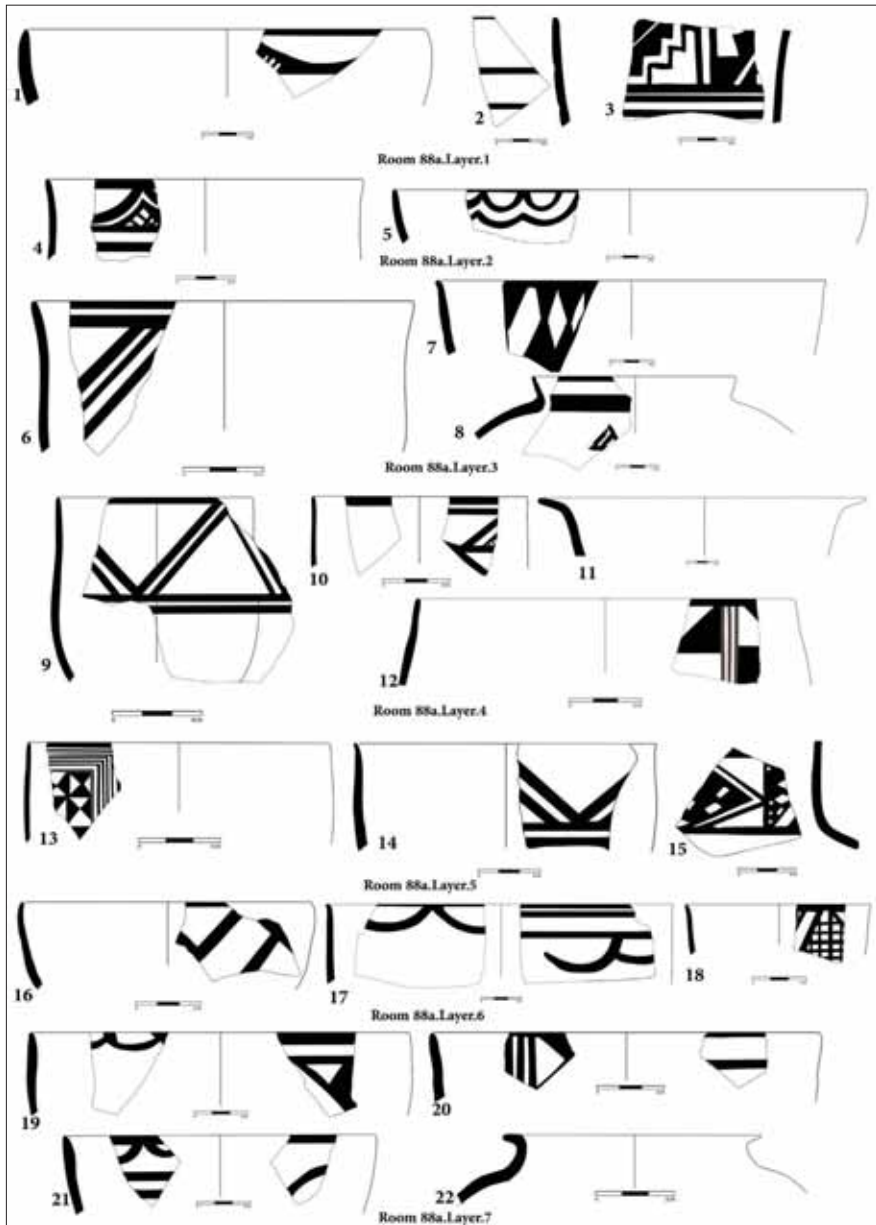


Fig. 13: Room 88a. Layers 3-7. Pottery collection.



Fig. 14: Workshop 35, Room 88, layer 3, clay figurines.



Fig. 15: room 88. Layer 4: male figurines.

a fast wheel. It seems this layer probably belongs to the early years of Phase 9. A four-petalled seal impression similar to the previous one found in layer 4, related to the Proto-Elamite period, a clay figurine with a long neck and two sherds analogous to Namazga III and Quetta ware are distinctive objects of this layer that can be attributed to the final stages of Phase 9 (Fig. 17).

The general characteristics of the pottery in layer 6 are similar to those of the upper layers except that there are far fewer painted vessels. In addition, there are no specimens comparable with Quetta ware, especially those with geometric motifs. The motifs are limited to parallel stripes inside open bowls, which have been categorized as belonging to a local Shahr-i Sokhta style (Fig. 13).

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Style
1	Buff	Buff	Wash	Buff	Brown	Local
2	Buff	Buff	Slipped	Buff	Brown	Local
3	Reddish	Buff	Slipped	Buff	Dark Brown	Local
4	Buff	Buff	Washed	Buff	Brown	Khurab
5	Buff	Buff	Washed	Buff	Brown	Local
6	Buff	Buff	Slipped	Buff	-	Namazga III
7	Buff	Buff	Washed	Buff	Dark Brown	Local
8	Reddish	Buff	Slipped	Buff	Brown	Local
9	Buff	Buff	Slipped	Buff	brown	Namazga III
10	Buff	Buff	Washed	Buff	Dark Brown	Local
11	Buff	Buff	-	-		Local
12	Buff	Buff	Slipped	Buff	Brown	Namazga III
13	Buff	Buff	Slipped	Buff	Dark Brown	Namazga III
14	Buff	Buff	Slipped	Buff	Brown	Local
15	Buff	Buff	Slipped	Buff	Dark Brown	Namazga III
16	Buff	Buff	Washed	Buff	Brown	Local
17	Buff	Buff	Slipped	Buff	Brown	Local
18	Grey	Grey	Washed	Grey	Black	Baluchistan
19	Buff	Buff	Slipped	Buff	Brown	Local
20	Buff	Buff	Slipped	Buff	Brown	Local
21	Buff	Buff	Slipped	Buff	Brown	Local
22	Buff	Buff	Washed	Buff	-	Local

Tab. 3: description of Room 88a ceramics (see also Fig. 13).

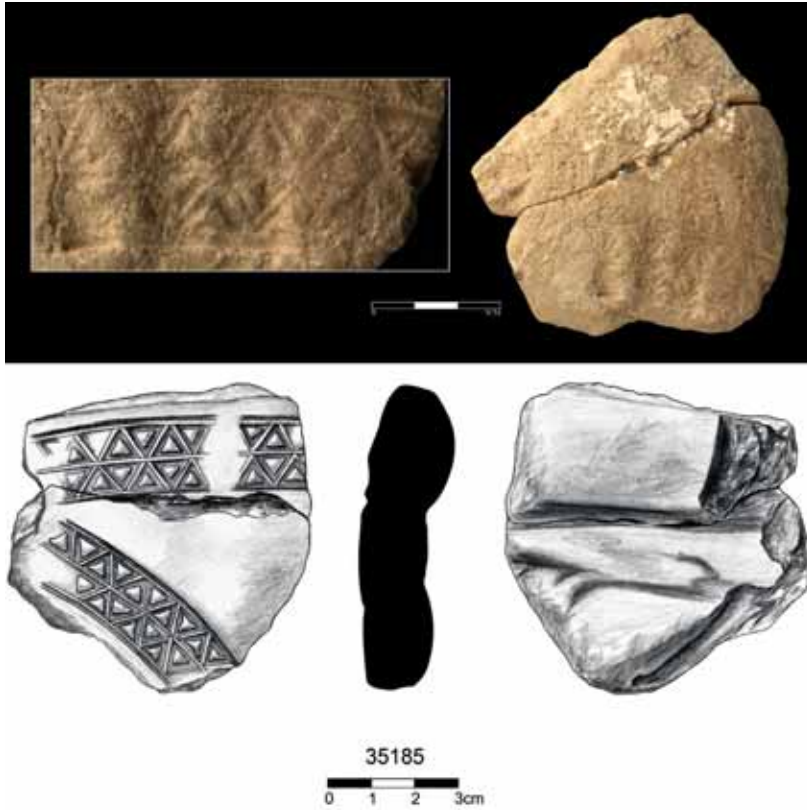


Fig. 16: room 88a. Layer 4. Cylindrical seal impression with geometric design.



Fig. 17: room 88a. Layer 5. Clay figurines and seal impression.

The seventh layer is the deepest in Room 88a and square XDV. The remnants of this layer, which is located immediately over sterile soil, include a very simple stove on the floor that has only one fire pit (Figs. 18-19). The architectural remnants of this layer are the oldest in the eastern residential area. The pottery in the seventh layer is similar to the sixth layer. The only difference is that some Quetta fragments are among the findings. Two grey pottery fragments, similar to the older layers of Tepe Yahya IVC, are representative of this layer. In general, there are fewer painted vessels and the decoration is limited to simple linear motifs and some patterns that have not been seen before. There are also plenty of plain hand-made vessels with overfired bodies in this layer.

3. Cultural materials and interaction in Shahr-i Sokhta I (late 4th and early 3rd millennia BC)

Although the ceramic categories are divided to buff, gray and red wares as well as global division of pottery in the other sites, our comparison is built based on

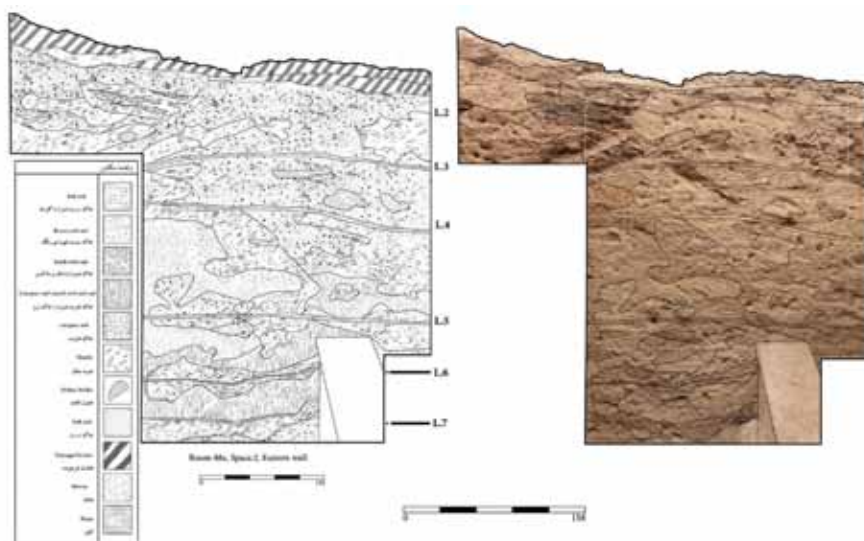


Fig. 18: Workshop 35, Square XDV. vertical cut on western wall of room 88a.



Fig. 19: Workshop 35, Room 88a. Circular stove on the virgin soil of layer 7.

the cultural types of ceramics for better understanding of interaction sphere at Shahr-i Sokhta period I or the formation era of Shahr-i Sokhta.

In the late 4th millennium BC Shahr-i Sokhta interacted with both Jemdet Nasr and south Turkmenistan (Lamberg-Karlovsky - Tosi 1973: 52). The former was part of a trans-regional system for trading goods in western Asia that operated along a west-east axis. It began in southern Mesopotamia and Khuzestan and passed through Malyan, Tepe Yahya and Shahr-i Sokhta, reaching the plain of Kech near Makran in Pakistani Baluchistan and ending in Miri Qalat and the necropolis of Shahi Tump west of the Makran mountains. In addition, there are some other evidences from different regions that includes Central Pakistani Baluchistan, Bampur valley, Kech-Makran, as well as Kerman region. Proto-Elamite culture, expressed in standard cultural materials such as cylinder seals, bevelled-rim ceramics and clay tablets, has been found in Tepe Yahya (Potts 2001); Mahtoutabad cemetery on the banks of the Halilrud (Desset *et al.* 2013); Shahr-i Sokhta I.9-10 (Tosi 1974a: 13); and Miri Qalat IIIa (Besenval 2001: 5), 3500-3000 BC. Kesh Makran marks the eastern limit of Proto-Elamite culture. It

is worth noting that the Beveled Rim Bowls of this site is limited to five shards and this evidence are not comparable to the evidence from Yahya IVC - a true Proto Elamite building with typical tablets, beveled rim bowls, sealing-impressions, etc. - or even to that from Shahr-i Sokhta I.9-10. The limit comparison with Yahya IVC came from some pottery in Miri Qalat IIIa which are comparable to those at Yahya IVC. Therefore, there is not enough materials to debate about true cultural influences from the west of Iran and it is better to assume that Proto Elamite influences on Kech - Makran came from Kerman and Halil rud Basin during the Proto Elamite period. Miri Qalat IIIa is coeval with Tepe Yahya IVC and Shahr-i Sokhta I, 9-10. The excavations in Shahr-i Sokhta also confirm that the Proto-Elamite tablets and Nal and Central Asian pottery (Tosi 1979: 159) are coeval.

Shahr-i Sokhta also interacted with south Turkmenistan during its formation period. This was characterised by Namazga III pottery, which has also been found in large quantities in Mundigak III north of Shahr-i Sokhta and the Quetta valley in Pakistani Baluchistan (Biscione 1974). This type of pottery has been found in layers related to Phase 10 and 9 of Shahr-i Sokhta approximately dated to 3200-3000 BC (Salvatori - Tosi 2005). The domain of interaction extended from the south Kopet Dagh Mountains to the Quetta valley in Pakistani Baluchistan (Biscione 1973: 113-117).

Although the effects of these two interaction domains are mostly evident in Shahr-i Sokhta Phase 10, it seems that the effects and presence of cultural materials from these two domains continued until the end of Period I (3550-3000 BC). New excavations have shown that during Phase 9 the influence of the Proto-Elamite and south Turkmenistan domains declined, while southern areas such as Nal and the Quetta valley became more influential. Prior to the new excavations, Tosi had classified Period I pottery into two traditions: Buff and Grey Ware (Tosi 1969: 324). Mutin and Minc used the Italian classification for the purpose of compositional analysis. They divided this pottery to three main categories based on the paste and cultural background (Mutin - Minc 2019: 884) (Mutin - Minc 2019: 884). A study of the material found in the lower layers of the *ERA*, especially those of Phase 9, shows six groups of pottery with different

provenance and styles: 1. Local (Shahr-i Sokhta), 2. Southern Turkmenistan and Quetta, 3. Khurab/Emir Gray type, 4. Proto-Elamite and Jemdet Nasr, 5. Nal and Central Pakistani Baluchistan, 6. Kerman, Bampur and Makran.

Local Shahr-i Sokhta cultural materials

The materials locally produced in Shahr-i Sokhta include a number of clay figurines and ceramic vessels. The latter are Buff Ware and generally consist of wide-mouthed bowls with parallel or wavy stripes below the rim on the internal surface. There are also small cup-like beakers with motifs under the rim and on the external surface. This type of pottery, with brown paint on a buff background, is very simple without much variety. Similar wavy motifs have been found in the Bampur and Chah Hosseini sites, probably dating back to the mid-4th millennium BC (Moradi *et al.* 2015; Mutin *et al.* 2017: 16). Anthropomorphic and zoomorphic figurines made of clay, especially humped-back cattle, are also considered to be indigenous to Shahr-i Sokhta (Fig. 20).

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Ø mouth (cm)
1	Reddish	Buff	Slipped	Buff	Brown	17
2	Buff	Buff	Slipped	Buff	Brown	-
3	Reddish	Buff	Slipped	Buff	Brown	30
4	Reddish	Buff	Slipped	Buff	Brown	30
5	Buff	Buff	Slipped	Buff	Brown	17
6	Buff	Buff	Slipped	Buff	-	28
7	Buff	Buff	Slipped	Buff	Brown	16
8	Reddish	Buff	Washed	Buff	Brown	-
9	Buff	Buff	Washed	Buff	Brown	-
10	Buff	Buff	Washed	Buff	Brown	6
11	Buff	Buff	Washed	-	-	27
12	Buff	Buff	Slipped	Buff	Brown	28
13	Buff	Buff	Slipped	Buff	Brown	-
14	Buff	Buff	Slipped	Buff	Brown	-
15	Buff	Buff	Slipped	Buff	Brown	-
16	Reddish	Reddish	Washed	Reddish	Brown	-
17	Buff	Buff	-	-	-	30

Tab. 4: description of local Shahr-i Sokhta pottery (see also Fig. 20).

South Turkmenistan and Quetta Valley cultural materials

Namazga III ware from Shahr-i Sokhta is painted with various decorative designs including solid geometric shapes, chequered patterns and zigzag motifs. Similar pottery has been found in Mundigak, Quetta, and Southern Turkmenistan and dates back to the second half of the 4th to the early 3rd millennia BC (Biscione 1973: 113). This type of pottery, along with locally produced ware, is the most abundant type in the ceramic assemblage of Shahr-i Sokhta I. However, some examples of pseudo-Jemdet Nasr pottery are painted with Quetta motifs, creating an intermediate style. The pseudo-Jemdet Nasr potteries also found in Yahya IVC that were decorated with local motifs (Potts 2001: fig. 1.40) and it may be an influence from Kerman region during the Proto Elamite period or Yahya IVC. It should be noted that many Namazga and Quetta pottery fragments were actually produced in Shahr-i Sokhta (Fig. 21) (Mutin and Minc used hybrids for defining of these types, Mutin - Minc 2019: 897). Among the other cultural materials that show similarity with southern Turkmenistan are seated or standing female figurines whose sexual organs are presented with incised lines (Shirazi 2007: fig. 11).

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Ø mouth (cm)
1	Buff	Buff	Slipped	Buff	Brown	12
2	Buff	Buff	Slipped	Buff	Brown	-
3	Buff	Buff	Slipped	Buff	Brown	-
4	Buff	Buff	Slipped	Buff	Brown	-
5	Buff	Buff	Slipped	Buff	Brown	16
6	Buff	Buff	Slipped	Buff	Brown	-

Tab. 5: description of South Turkmenistan and Quetta Valley pottery (see also Fig. 21).

Khurab/Emir Grey Ware

Emir Gray Ware pottery dated back to late fourth and early third millennium BC (Wright 1984; Sajjadi 2019: 82) and it was reported for the first time by A. Stein from Shahi Tum and Khurab (Stein 1937). It has cross-shaped motifs over the inside bowls and generally are reported in Shahr-i Sokhta (Sajjadi 2003),

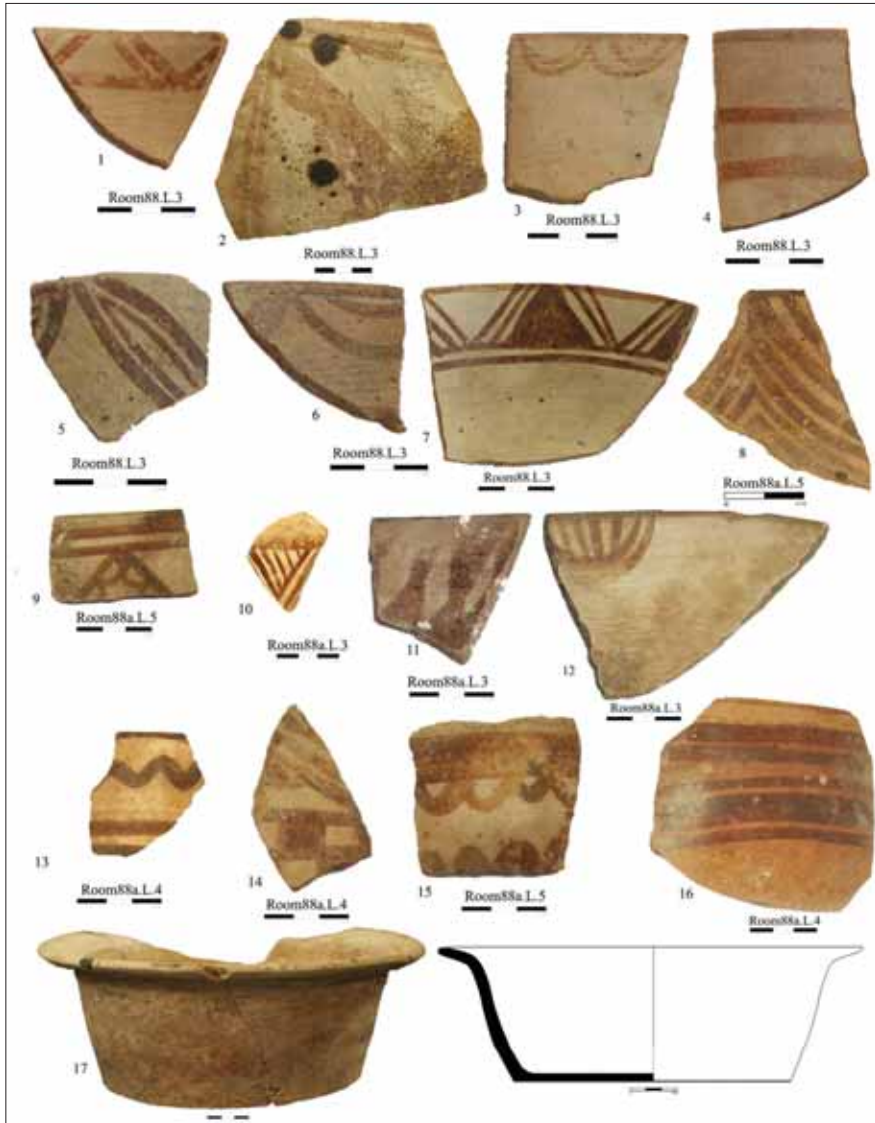


Fig. 20: local pottery of Shahr-i Sokhta of layers related to phase 9 in ERA.



Fig. 21: Namazga III pottery of Shahr-i Sokhta.

Espidezh, (Heidari *et al* 2019: pl.14), Kech-Makran (Mutin 2007: fig. II) and a number of sites all around the south eastern of Iran and Pakistan (Wright 1984: 64-70). A large number of this pottery related to period I of Shahr-i Sokhta has been found in *ERA* (Fig. 22) and Shahr-i Sokhta graveyard (Sajjadi 2003: fig. 26). The most important reason to avoid categorized of this kind of pottery under the type of Baluchistan/Kech-Makran type is that the origin of them is ambiguous in archaeological context.

No.	Paste Colour	Body Colour	Cover	Slip	Paint Colour	Ø mouth (cm)
1	Grey	Grey	-	-	Black	18
2	Grey	Grey	-	-	Black	26
3	Grey	Grey	-	-	Black	28
4	Grey	Grey	-	-	Black	-
5	Grey	Grey	-	-	Black	-
6	Grey	Grey	-	-	Black	-

Tab. 6: description of Emir Grey Ware pottery (see also Fig. 22).

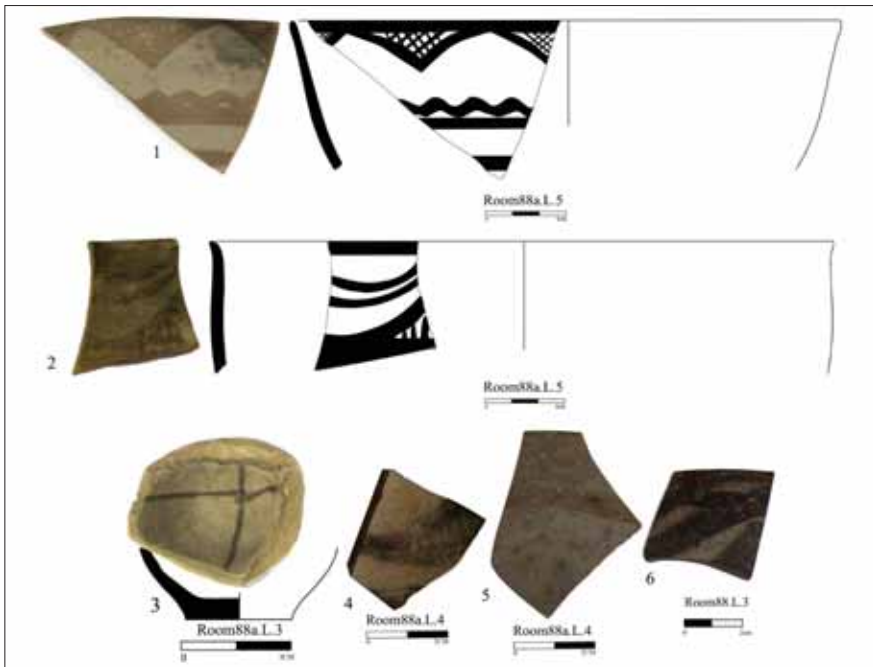


Fig. 22: Grey Ware pottery of Period I.

Nal and Central Baluchistan pottery

Nal pottery is a fine buff ware with semicircular motifs on the external body mostly in the form of high cylindrical bowls. It was found in the Nal archaeological site in Pakistani Baluchistan and dates back to 3000 BC (Biscione 1984: fig. 10.15). A rare piece from Shahr-i Sokhta with a depiction of standing humans is also similar to the Nal style (Fig. 23: 1). Fragment No. 3 (Fig. 23) with nested circle motifs is one of the rare examples that is generally similar to Nal pottery (Franke 2016: figs. 22-24). Two other fragments (Fig. 23: 4-5) are similar to samples collected by de Cardi from central and northern Pakistani Baluchistan (de Cardi 1983: fig. 22.21) and are classified as Nal-type pottery (Cortesi et al. 2009: fig. 6.1). In addition, a painted Buff Ware fragment with a leopard design is comparable with Nal ware (Franke 2015: pl. 6).

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Ø mouth (cm)
1	Buff	Buff	Slipped	Buff	Brown	-
2	Buff	Buff	-	-	Black	-
3	Buff	Buff	Slipped	Buff	Brown	-
4	Buff	Buff	Slipped	Buff	Brown	-
5	Buff	Buff	Slipped	Buff	Brown	32

Tab. 7: description of Nal and Central Baluchistan pottery (see also Fig. 23).

Proto-Elamite cultural materials and pseudo-Jemdet Nasr pottery

The Jemdet Nasr-type pottery found in Shahr-i Sokhta consists of globular jars with rounded flared rims. In addition to the rim shapes, shared features include two or four ear-like handles on the shoulder (Fig. 24). Unlike the carinated Jemdet Nasr examples from Tepe Yahya IVC (Potts 2001: fig. 1.40), the profile of these vessels is completely round and the motifs are more like Quetta Ware. Therefore, they cannot be fully compared with the Jemdet Nasr type, but rather constitute a local and Sistanized form of Mesopotamian pottery. A clay figurine from layer 5 of Room 88a (Fig. 17) is also reminiscent of the Jemdet Nasr style (Matthews 1989: fig. 11.3).



Fig. 23: Nal Ware pottery from Shahr-i Sokhta.

No.	Paste Colour	Body Colour	Cover	Slip Colour	Paint Colour	Ø mouth (cm)
1	Buff	Buff	Washed	Buff	Brown	18
2	Buff	Buff	Washed	Buff	Brown	19
3	Buff	Buff	Washed	Buff	Brown	19
4	Buff	Buff	Slipped	Buff	Brown	20
5	Buff	Buff	Slipped	Buff	Brown	18

Tab. 8: description of Proto-Elamite and pseudo-Jemdet Nasr pottery (see also Fig. 24).

Kerman, Bampur and Makran pottery

Much of the Red, Grey and Buff Ware from the various levels and workshops of Period I in the *ERA* is similar to that of Yahya IVC/Mahtoutabad III in the Kerman region (Figs. 25-27), the Bampur valley in Baluchistan and to a lesser extent Miri Qalat III in Pakistani Makran (Fig. 26: 1), and the latter has also been found in Yahya IVC2. However, Khurab/Emir Gray Ware and Bampur-type ceramics are much more abundant in Shahr-i Sokhta than Miri and Kech-Makran types. It seems that at the end of the 4th millennium BC, the Bampur plain functioned as a dynamic communication corridor between Kerman and Sistan.

The presence of Yahya IVC and Mahtoutabad III pottery (Figs. 25-27) among the cultural material of Period I in Shahr-i Sokhta is impressive. The site of Mahtoutabad is located about 1.5 km south-east of Konar Sandal in the Halil Rud valley. A one-year excavation of this site found that Mahtotabad III has no relations with earlier or later cultural horizons in the Halil Rud basin and it is known to be an isolated phase (Desset *et al.* 2013: 21). Based on the abundance of bevelled-rim pottery and other types of Proto-Elamite ceramics from Mahtoutabad III (more than six times the quantity of Proto-Elamite ceramics in Malyan and much more than in Yahya (Desset *et al.* 2013: 27), it seems that this site was one of the most important centres of Proto-Elamite expansion in the southeast of Iran.

No evidence of bevelled-rim pottery has been documented from the Proto-Elamite phase in the *ERA* in Shahr-i Sokhta, but other Proto-Elamite elements such as pseudo-Jemdet Nasr jars, cylinder seal impressions and a Proto-Elamite tablet have been found in the deepest layers (Period I) (Amiet - Tosi 1978), which



Fig. 24: Shahr-i Sokhta. Pseudo Jemdet Nasr pottery from *ERA*.



Fig. 25: Shahr-i Sokhta. Layers of phase 9: Kerman pottery.

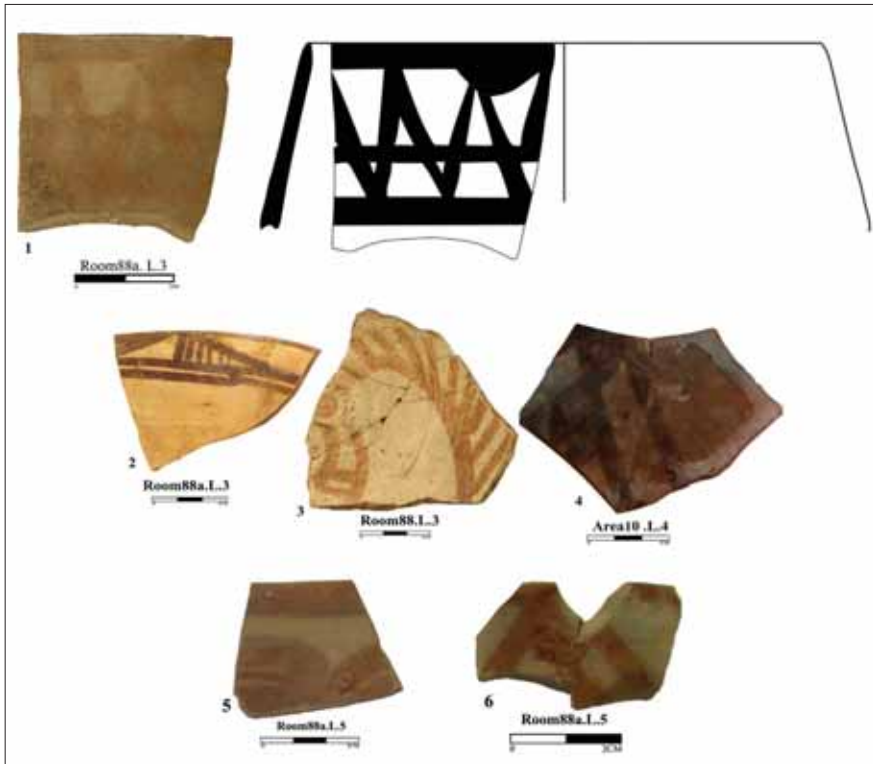


Fig. 26: pottery fragments of Bampur valley and Pakistani Makran.

confirms the penetration of this culture in Sistan. The presence of the Mahtoutabad III culture rather than Yahya IVC in the Hirmand valley during the early 3rd millennium BC is shown by the bevelled-rim vessels from Shahr-i Sokhta I, which are similar to Mahtoutabad III pottery (Fig. 27). It should be noted that the Yahya IVC pottery in Shahr-i Sokhta is more comparable to what is seen in the Bampur valley than Yahya itself. The historical association of Kermani and Makrani materials in the Bampur valley suggests the active role of this area as a conduit for spreading Mahtoutabad III and the Proto-Elamite culture to Sistan and Pakistani Makran.

Fragment 4 in Fig. 25 was previously interpreted as Kermani pottery of the Yahya IVC period (Mutin 2013: fig. 3.47), but it is now clear that this kind

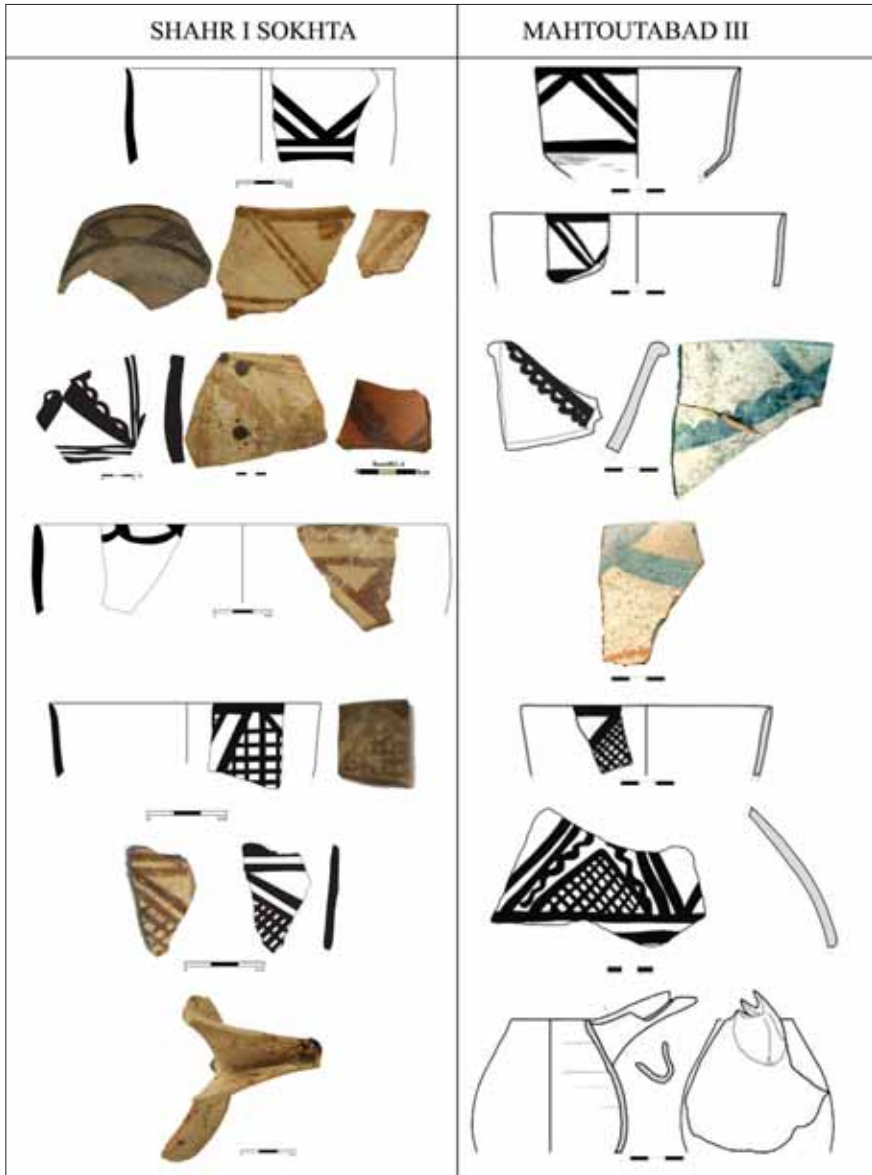


Fig. 27: comparison of painted pottery motives from Shahr-i Sokhta and Mahtoutabad III.

of pottery of the late 4th millennium BC probably originated from Tepe Chah Hosseini in the Bampur valley (Moradi 2016: 160 No. 2 and 179 Nos. 2, 3 and 7). Fragment 12 in Figure 25 is more reminiscent of the colourful pottery of Chah Hosseini (Moradi 1395: 259, no. 15; 322, no. 22) than the bichrome pottery of Yahya IVC, and Fragment 11 was interpreted by Mutin - Lamberg-Karlovsky as a western Baluchistan product (Mutin - Lamberg-Karlovsky 2013: fig. 3.36 nos. 1 and 4). However, Fragment 1 in Figure 25 is comparable with Yahya IVC (Mutin - Lamberg-Karlovsky 2013: fig. 3.55 no. 9), and Fragment 8, made of red paste, is similar to another specimen from Yahya IVC2 (Mutin - Lamberg-Karlovsky 2013: fig. 3.73 no. 3). Other specimens shown in Figure 25 display similarity with the pottery tradition of Yahya IVC and it is even possible to attribute the origin of Fragment 11, representative of a type found in the Bampur valley in large quantities, to Aliabad ware, produced in Tell Iblis IV or Aliabad wares in Kerman (Sarraf 1978: 217, fig. I, 90). To these Kerman influences on the pottery of Shahr-i Sokhta Period I should be added the four-leaf seals, which have also been found in Yahya IVC (Lamberg-Karlovsky - Potts 2001: fig. 10.29).

No.	Paste colour	Body colour	Cover	Slip colour	Paint colour	Ø mouth (cm)
1	Red	Red		-	Dark Brown	
2	Reddish	Reddish	-	-	Light brown	
3	Buff	Buff	Slipped	Buff	Dark brown	-
4	Reddish	Reddish	-	-	Light brown	30 cm
5	Buff	Buff	Slipped	Buff	Dark brown	-
6	Buff	Buff	Slipped	Buff	Brown	-
7	Buff	Buff	Slipped	Buff	Brown	-
8	Red	Red		Polished	Dark brown	-
9	Buff	Buff	Slipped	Buff	Brown	-
10	Red	Red		-	Dark Brown	-
11	Reddish	Reddish	Slipped	Brown	Dark Brown	
12	Reddish	Reddish	Slip	Buff	Polychrome	-

Tab. 9: description of Kerman and Makran pottery (see also Fig. 25).

The influence of the western regions of Baluchistan, namely the Bampur plain, can also be seen directly in Shahr-i Sokhta. Fragment 1 in Figure 26 is comparable

to Miri Qalat IIIa (Mutin 2013: fig. 14.16) and Yahya IVC (Lamberg-Karlovsky - Potts 2001: 21, fig. 2.22.H). According to B. Mutin and C.C. Lamberg-Karlovsky (2013: 90), Fragments 2 and 3 in Figure 26 are imitations of Baluchistan Buff Ware pottery, a type also found in Yahya.

It is very difficult to determine the exact origin of each single pottery fragment in Figure 26, but since a large quantity of Bampur Plain pottery is also found in Yahya, it suggests that the communicative and transitional corridor of these traditions to the Sistan plain was originally the Bampur plain.

No.	Paste colour	Body colour	Cover	Slip colour	Paint colour	Ø mouth (cm)
1	Grey	Grey	-	-	Dark brown	14
2	Buff	Buff	Buff	Buff	Dark brown	32
3	Buff	Buff	Buff	Buff	Brown	-
4	Grey	Grey	-	-	Dark brown	-
5	Grey	Grey	-	-	Brown	-
6	Grey	Grey	-	-	Light brown	-

Tab. 10: description of Bampur (Baluchistan) pottery (see also Fig. 26).

4. Conclusion

The aim of the excavations in the *Eastern Residential Area* is to obtain more detailed information about the early formation of Shahr-i Sokhta in Period I, focusing on spaces that seem to contain adequate evidence from this period. Although we are still waiting to receive the results of radiocarbon tests concerning the sequential stratigraphy in the excavated workshops, some useful information has been obtained through examination and comparison of cultural materials.

The new excavations mostly focused on Phase 9 deposits, with a small quantity of Phase 10 remains found only in the lowest layers of Room 88a in Workshop 4. The evidence shows that Phase 9 was the first stage of Shahr-i Sokhta's expansion from a small village to a larger settlement. The remains of this phase have been found in almost all of the excavated workshops in the *ERA*. Similar pottery to this phase has also been found in some suburban sites around Shahr-i Sokhta. In most sections the archaeological deposits related to Phase 9 (3100-3000 BC) are about

150 cm thick, showing the stability and continuity of this long period that paved the way for Shahr-i Sokhta to become a large population centre in eastern Iran. This large volume of deposits is easily investigable in Workshops 4, 10, 33 and 34 and can be observed in almost all of the lower layers of the *ERA*. However, no trace of this phase has been found in other residential sections such as the northern and western parts of the site.

In Period I and in particular in Phase 9, the presence of pottery from other contiguous regions is evident. It seems that during this period Shahr-i Sokhta was an attractive and hospitable region due to its fertile lands and rich water supplies and was able to attract a relatively large population from neighbouring areas especially Baluchistan. The presence of a huge volume of cattle bones in the lower levels of this phase suggests extensive agriculture in a region using large-bodied animals such as cattle, needed for working muddy wetlands.

It seems that the early urban developments in the easternmost regions of Iranian plateau was under influences of Proto Elamite centers in Kerman (Mahtoutabad III and maybe Yahya IVC) around 3100-3000 BC which can be seen from seals impressions and a Proto Elamite tablet at Shahr-i Sokhta I, 10-9. This is important to note that in Shahr-i Sokhta, the management control objects such as seal impressions and tablets are more abundant than the other Proto-Elamite elements (like beveled rim ceramics).

After Phase 9, we see a standardization and homogenization of cultural materials, especially pottery, which is probably a sign of the stabilization of Shahr-i Sokhta culture in the Sistan plain. It is also likely that the transition from Periods I to II involved changes in architectural structure, pottery, and management methods.

As mentioned above, Phases 8 and 7 saw the emergence of what is known as Shahr-i Sokhta standard pottery, and the influence of the adjacent cultures and regions decreased considerably.

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