

# Excavation at Buildings Nos.1 and 20 at Shahr-i-Sokhta

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**Abstract:** Here are presented the preliminary results of excavations in buildings Nos. 1 and 20. The first one is large, with tens of rooms/ spaces and 6 structural levels (Levels A-F) of periods II and III. Level A is the oldest and most structures of this level are storage rooms, containing seals, seal impressions and other administrative objects. Level B is not well-documented, although changes are seen in the use of the architectural complex. Level C is somehow similar to the previous one. In Level D the Building becomes a large structure, perhaps attesting growing social complexity in Sistan. The main entrances are on the southern side, living spaces are on the central axis and storage spaces on the eastern and western margins. About 50 Spaces were excavated in Level E, but the main part of the structures of this level consists in 10 rooms. Level F is the last one, later on this part of the settlement was abandoned. Building 20 lies northwest of Building 1. Excavations lasted only 25 days and are not complete. The complex has 12 spaces disposed in a north-south direction with a coherent architecture of mud bricks. Rooms have right angles and walls approximately 70 - 80 cm thick. The main entrances of building were generally painted with two layers of red and white plaster. In spaces 4 and 5 were found two very large fireplaces, filled with a large amount of ash and charcoal. The exterior of the fireplaces were coated with white clay plaster. According to the very few materials, mainly pottery, this building can be dated to period IV.

**Keywords:** Shahr- i Sokhta , Fireplace, Building Nos. 1&20, Specialization

## Introduction

Shahr-i-Sokhta, a proto-urban center, is one of the most important archaeological sites of southeastern Iran. The excavation of this site was conducted in two different stages. The first stage took place in 1966-1978 by the Italian expedition under M. Tosi (Tosi, 1983), S. Salvatori and M. Piperno (Salvatori and Vidale, 1997; Piperno and Salvatori 2007). Later in 1997 the Iranian Archaeological Expedition under S. M. Sajjadi resumed a new stage of excavations (Sajjadi, 2003, 2007, 2009). In latter excavations architectural units are divided into buildings, houses, courtyards, rooms and spaces. A space is an architectural unit with at least three perimeter walls that could contain more than one room.

Building no.1 is located in the so-called Monumental trench of the site, in the residential quarters, where the excavation of one of the largest buildings of the site began in 1999. Building no. 1 is situated at the northeastern corner of square O, measuring 250x250 m, on the northern part of the site (Fig. 1 a-b). The height of this trench is about 18 meters above the base level of the Nimruz terrace<sup>1</sup> and the

depth of the deposits archaeological at this point is about 5 meters. The surface of Trench no.1 : and of the excavated building in this section is about 1600 square meters.

gressive scarp-foot erosion. As there is hardly any talus at the base of the escarpments, their slope rises abruptly to the next higher level. In some places the escarpments are dissected into mesas and buttes. The high plain of the dasht, towering above the uppermost terrace, forms the highest wash slope, which extends upwards to the pediments, alluvial fans and scree slopes at the foot of mountains. This level forms the outer rim of the terminal lake basin. Towards the mouth of the perennial rivers, particularly at the Hyrmand, the individual terraces widen to form shield-like surfaces. These represent deltaic fans synchronous to each respective terraces. Therefore deltaic fans obviously can be correlated with river and... lake bound terraces. Thus there geomorphological units of different age result, which rise above the mean low water surface of the lake in the following sequence: Nimruz Level= 3-5 m, Ram Rud Level = 8-12 m., Chahar Borjak Level 30 to 35 m (Jux & Kempf 1983, p. 30).

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<sup>1</sup> Generally it is possible to distinguish three land surface levels in Sistan. With reference to the low water distance of summer the lowest of these surfaces rises 3 to 5 m., the median 8 to 12 , whereas the third extends up to 35 m. All these terraces show the similar composition and texture regardless of their level. Widely extending eroded bedrock surfaces (pediments) are veneered with a rather thin cover. From its lower edge the gravel plain of each terrace gradually ascend to the escarpment of the terrace above. The gravel cover is a residual deposit derived from pro-

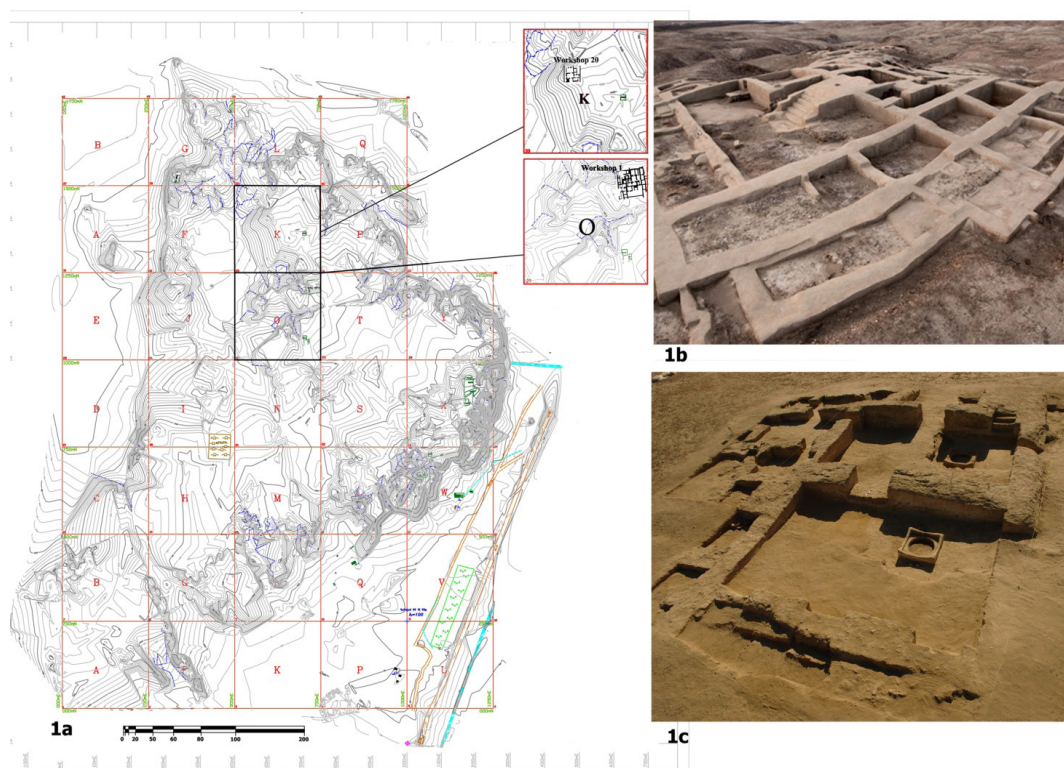


Fig. 1. a: Location of buildings nos. 1 and 20 at Shahr-i-Sokhta; b. General view of Building no. 1; c. General view of Building no. 20

Excavations and the subsequent researches in trench show that the building may have had various functions not yet fully identified, e.g., a large residential unit, a temple or other.

As a whole, in Building no. 1, we came across six different structural levels, five of them (Levels A-E) belonging to Periods II and III<sup>2</sup> and only the latest level, i.e., level F could be linked to phases 2-3 of Period III. Levels D and E furnished/ provided the most important architectural remains of Building no. 1 (Figs. 2 and 5a).

#### Level A

This is the earliest level of Building no. 1 and its only remaining traces are two plastered walls with two entrances, a very smooth and thick floor and two fireplaces, one circular and another horseshoe-shaped. The other remains of this level are located west of Building no. 1 in OY square and include rooms with narrow entrances and thin plastered walls. Most of these structures are storage

rooms that contained different finds such as seals, seal impressions and other administrative objects.

Perhaps during this phase existed a large architectural complex that, according to the dimensions of the walls, seems to have been unroofed. A horseshoe fireplace is located in the center of a large space (Space no. 5) that is limited on the south by a plastered wall with two doors leading to Space no. 12; in the north there is a similar wall with one door (Fig. 3).

#### Level B

We do not have clear and well-documented cultural remains from all the spaces of Level B. Changes; however, could be seen in the use of the architectural complex, i.e., the building was structured in accordance to patterns of daily activities. It seems that the structures of this level have been destroyed due to constructions during the later periods of the complex

The structures of this level are divided into different spaces with non-plastered mud brick walls that perhaps were used to close the doors of the building. This is also seen in Building no. 20, where the main southern entrance is closed with a few courses at bricks without any damage to the main structures. This also occurs in structures of this

2. A tentative chronology of Shahr-i Sokhta follows. Period I: Phases 10, 3200-3000 BC ; Phase 9 – 8, 3000-2800 BC . Period II: Phases 7, 2800-2700 BC; Phase 6, 2700-2600 BC; Phase 5, 2600-2500 BC. Period III: Phases 4 2500-2400 BC; Phase 3 2400-2300 BC; Phases 2 without C14 sample 2300-2200. Period IV: Phase 1 2200-2100 BC; Phase 0, 2100-2000? BC. ( Sajjadi 1365, p. 71 )

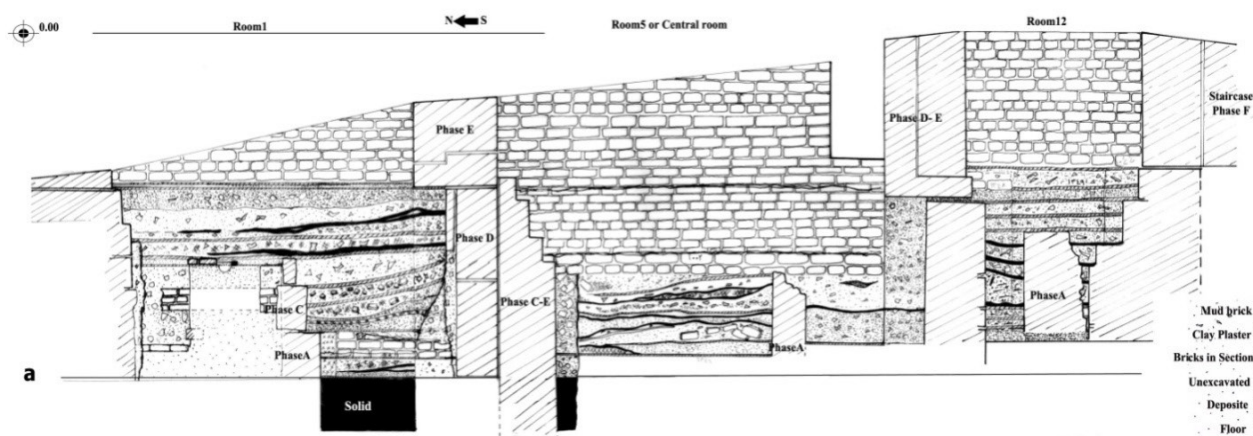


Fig. 2. Sections of Building no. 1 during Level C. The brick layout of the various walls is clearly evident.

layer of Square OY; in this case too the entrances of the building, like those of Level B, are closed (Fig.4).

### Level C

Remains of this level are more or less similar to the previous one. The structures of this phase are formed by walls beneath Level D. The main building, with strong structures, originated in this level and continued with slight variations until the abandonment of this part of the site, i.e., at Level F (Fig. 2).

### Levels D & E

The plan of the architectural remains of Level D is similar to the ones of other structures in Shahr-i Sukhta.<sup>3</sup> In this level, Building no. 1 changes into a large structure which is a testimony of growing social complexity in Sistan basin, with the development of a ruling class that controlled all the economic resources of the trench, these abilities are attested by the abundant seal impressions found in the Building no. 1.

As mentioned above, the main structure during Levels D and E became remarkably larger. Here the main entrances are on the southern side, living spaces are located on the main central axis and storage spaces on the eastern and western sides. These developments reflect the growing level of expertise and specialization of the various groups of the population of the Sistan basin during the III millennium BC building, renovated in this period, has an uncommon peculiar plan, with an entrance through a primary vestibule and a direct entry into the central spaces (Sajjadi 2009: 24).

During Levels D and E, the building has a rectangular plan and it is built of mud bricks without plaster. The main

discussion is focused on Level E, which has the most abundant and continuous architectural evidence (Fig. 5: b-c). It seems that the building during these levels was a large house of Clan Chiefs where Spaces have been separated one from each other according to their function.<sup>4</sup>

About 50 rooms were excavated in Level E of this building, but the main part of the structure of this Level is formed by about 10 rooms toward north (oriented almost NW-SW) in the direction of the prevailing winds; the entrance of the building is facing southeast of Building.

### Eastern and Western Storage Trenches

L-shaped space no. 6 is located in the south-eastern part of Building no. 1. It is directly linked to spaces nos. 10, 9 and 4 and likewise has little width in south – north direction, hence it can be considered a storage trench (Fig.6), not only because of its dimensions, with a narrow long shape which is typical of storage rooms at Shahr-i Sukhta and in Central Asian sites such as Jarkutan (Askarov and Shirinov 1991, Fig. 2), but also because tens of objects related to economical management (Feroli *et al*, 1979:7-32) such as seals, clay door sealings and jar stoppers and so on were found in this space.

Space no. 10, a narrow room or corridor, is located north of space no. 6 and linked/ connected with it on the south and with space no. 9 on the north.

Space no. 10 is rectangular and lies at the eastern fringe of the building and is comparable to spaces nos. 6 and 9 of the same complex. Its smaller width and direct link with other spaces suggest that this too was probably storage. In

3. e.g.: House of the Pit and House in square XH ( Tosi and Mariani 1987, Tavola XIII).

4. 4. The regularity of the plan of the building, the regularity of the rooms disposition, the size of the rooms and the architectural elements specific of this structure suggest that it had a specific function, e.g. the residence of a group of clan chiefs. Of course also other explanations could be possible.

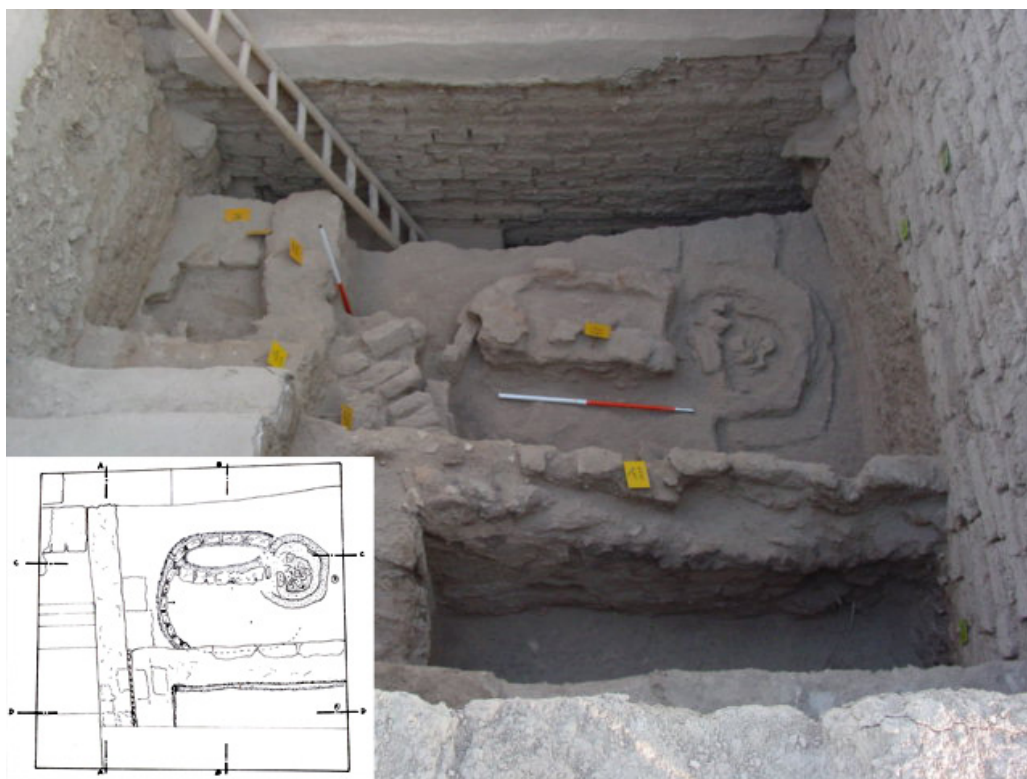


Fig. 3. Central room no. 5 of Building no. 1 and the horse shoe fireplace at the center of room

this space a clay bicone was found, one of the many from Shahr- Sokhta, those are considered objects connected to economic management (Cattini 2000:485-495). Bicones are generally 3-4 cm long with a diameter of 2-2.5 cm.

Space no. 9 of Level E, where a large number of triangle-shaped terracotta cakes was discovered, is located in the northeastern corner of Building no 1. (Fig.7d)

Space no. 53 is square, and along with spaces 31-32, 52 are located at the western flank of Building no. 1. A number of counters (clay balls) were unearthed in this space. Small bone rings, terracotta cakes, bicones and other clay counters were also found in Space no. 53 (Fig. 7: a-d, f-u). It is to be remarked that, due to its location at the margin of the building, Space no. 53 too could have been used as storage like the ones in the eastern part of the building. However, it is difficult to know what was stored there. In spaces nos. 31 and 32, located south of space no. 52, were found a number of clay disks used to close the storage vases. They have been on top of storage jars, with seal impressions and so on so they are definitely jar stoppers. (Fig.8).

### Central Rooms

Spaces nos.1, 2, 5 and 12, rectangular rooms, are located at the central axis of the building (Fig. 5). Space no. 12 in Level E became a recessed entrance space that could be defined as a vestibule. This space is enclosed by three walls

and its southern side, sheltered from the prevailing wind, is open. This space is connected to room no. 5 (Fig.3) through a door. Room no. 5 seems to have been the central trench of the structure, providing access to other parts, because the only entrance to Building no. 1 in Level E opens into this room. From here it is possible to go through doors to other parts of the building, such as the eastern and western storage trenches. Spaces nos. 1 and 2 are also parts of the central rooms.

The various archaeological remains discovered in these spaces include seals, seal impressions, textile fragments, metal, stone and wooden artifacts, and zoomorphic and anthropomorphic figurines. The functions of these rooms are not well-known, but we can assume that they could have been living spaces, even if no fireplaces were found in them.

### Lateral Spaces of Building (OY Trench)

Excavation in the OY trench, aimed at determining the exact stratigraphy of the lateral parts of Building no. 1 in the northwest part of trench no. 1 and of the trenches immediately west of it, was carried out in 2004 and 2007. Six squares were excavated, namely OYL, OYK, OYG, OYF, OYH and OYC. During these excavations, in the higher levels of a rectangular room, we came across a rich set of structures with organic materials, such as wool and plant fibers. The room probably was a textile workshop



Fig. 4. Blocking of doors in Level B in the building no. 1.

(Fig. 9) and, because of the shape of the structure and of the relative height, it is comparable with Level E of the main building.

In this trench the architectural sequence can be divided into three distinct levels. The most recent (first level) is represented by the foundation of a large structure close to the surface, attested by three or four walls. Architectural remains of this level are comparable to the upper levels of Building no. 1; this similarity is also evident in the direction of their walls and the heftiness of the structure. The walls of this level are about 90 to 120 cm wide, built with mud bricks and a layer of mortar 4 cm. It seems that this structure is the foundation of a large building. It rests on the ground and it is filled by hand-made pottery fragments and other archaeological materials. No signs of floors or stumping were found.

The second level is located beneath the first one and includes rooms with thin walls about 20 cm high, which are scattered throughout the trench. These walls are concentrated more in the south side of the square OY and are at the same height of Level E of Building no. 1. This level of square OY is similar to the structures of Levels D and E of Building no. 1 in abundance of seals and seal impressions, very small rooms, and structures for storing food and other materials.

The third level of architectural remains in this square consists of parallel structure with non-plastered walls and of an alley between them. These evidences are below the second level and they seem to have been filled for construction of the upper rooms. This level can be compared with Levels B and C of Building no. 1 (Fig.10).

#### Level F

Level F is the final stage of Building no. 1, after which the Building was abandoned completely and occupation ceased at this part of the site. This level is characterized by a great staircase on the south, as well as by blocked doors between rooms and spaces. It seems that the earlier structures were intentionally filled and the plan of Level E was used for the new constructions. Evidence of level F can be seen around Building no. 1 and in trenches no. 18 and 19. Other lines of evidence of this level come from two squares in the eastern part of the same trench, where we found mud brick platforms dating to period IV of Shahr-i-Sokhta sequence (Fig.11)

#### Archaeological Material

The cultural materials from Building no. 1 consist of a wide range of materials from painted ware to seals, unlike Building no. 20 which is rather poor in this respect.

#### Pottery

Pottery fragments were found in every level of the Building. Most of them belong to periods II and III and; therefore, corresponding to the period of construction of the Building no. 1.

Pottery from this building includes painted and unpainted Buff, Gray and Red Ware. Buff Ware has been found in a great numbers, in different shapes such as jars, bowls and beakers. The most frequent decorative motifs of the



Fig. 5. General plan of Building no. 1 and architectural remains of Level E

Painted Ware are geometrical designs, common and familiar in other parts of Shahr-i-Sokhta, comparable to the pottery samples from the Eastern Residential Trench and of the Central Quarters. Naturalistic motives are less frequent than the geometric ones. Animal motifs, mainly goats, are found together with plant motifs in the lowest level of this structure. There is very little in common with the geometrical motives presented in Fig. no. 12.

#### Other Finds

Clay, wood, bone and stone objects, plant remains, human and animal figurines are finds from the Monumental Trench. Clay objects consist of bicones triangular pancakes, seal impressions and door sealing. Anthropomorphic figurines consist of men with open and crossed hands and women in standing or sitting positions. Animal figurines include humped bulls and canines.

Bone materials consist of seals and engraved objects (Fig.7). There is also a very wide range of wooden objects including beads, a wooden 'ruler', combs, unfinished objects and crochet hooks. Objects of soapstone, alabaster, limestone and flint include different types of seals with geometric patterns and alabaster vessels, balls, drills and other small finds. Fragments and objects related to textile industry such as fabrics and ropes from plant or animal fibers are frequently found in various spaces in Building no. 1.

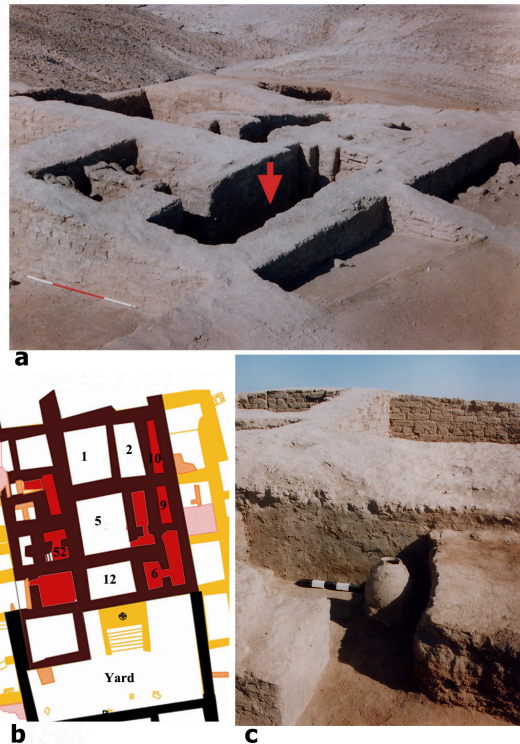


Fig. 6. Room no. 6 and a storage jar.

#### Excavation at Building no. 20

Building no. 20 is located in K'NA, K'NB, K'NF and K'MA squares, northwest of Building no. 1, east of the so-called Industrial Sector and northeast of the necropolis. On the surface of this trench architectural features such as thick walls were identified. Evidence from the upper level of the building that measures about 20 x 15m, show that much of it was filled by sand. One of the principal goals of our excavation in this sector was to highlight the less-known aspects of architecture of the Monumental trench (Fig.1: a, c).

All evidence suggests that this building was evacuated systematically. For reasons that are not yet clear, after evacuation the building was not used anymore and it was filled with sand.

Building no. 20, with 12 spaces situated in a north-south direction, has a coherent architecture of mud bricks. Rooms have right angles and walls are approximately 70 to 80 cm thick. Interior walls are covered with a white plaster made of clay and other substances, while on both sides doors are probably decorated with red clay or ochre. Building no. 20 is composed of various architectural components such as central rooms, side rooms, open spaces, storage rooms and a staircase probably to access the roof, all of which are built with mud bricks. No baked bricks were found.

This building has a main entrance on the southern side, sheltered from the wind between the two supporting walls.



Figure 7. Objects from Building no. 1: a-b: stone seal; c, e-f: seal impressions; d: triangular pancake; g: clay balls, counters; h-j: human clay figurines; k: animal figurine, wild boar; l: drill head; m: wooden comb; n-o: metal objects; p: bone tool.

The entrance opens into the central room (Room no. 5). Other than this entrance, all the spaces are divided into different parts. A courtyard in the northern part marks the limit of Building no. 20. In the eastern side of the building there is a small room used as storage, and in the western part of structure a staircase probably to reach the roof.

All the rooms of this building have at least one separate entrance and some of them have 2, 3 or 4 entrances (Fig. 13). Some of them were closed with mud brick for unknown reasons, others were higher than the floor level and they were raised by placing a mud brick on the threshold. All the doors, except a few cases, were covered with two layers of plaster, red and white. No archaeological remains have been found in this sector. This shows that the building was abandoned for a long time and people intentionally left the structure. Since the building was filled with sand, the inner walls and floors were little damaged (Fig. 14). The spaces of Building no. 20 are discussed below.



Figure 8. Location of different types of materials found in the rooms of the Building No.1

### Space 1

This space is located in the southeastern corner of trench no. 20 in K'NA and K'NF trenches. The walls of this space can be seen on three sides and only the southern wall is not yet excavated. This is a rectangular space of 250 × 442 cm, oriented east–west and located in the southeast corner of Building no. 20. In the north, a door connects it with Space no. 2. The main entrance to the building (Space 11) can be seen west of space 1. The door in the east side of space 1 leads into Space 10, that has not been excavated completely. The interior walls are covered with a plaster of a white color made of clay and other substances, and the main entrance with red clay (Fig. 15). On the northern wall there are two niches with sloping bottom.

### Space 2

This space is located in K'NA and K'NF squares, on the eastern side of Building no. 20. Space 2 is a rectangular room oriented east–west with entrances on north, south and western walls. The northern wall has two doors, the eastern one of which is blocked with mud brick. All the



Figure 9. Location and identification of trenches and architectural structures of OY square: 1: Street, 2: Bins, 3: Textile fragments, 4: A room of OYG square, 5-6: Storage rooms



Figure 10. Textile workshop in the eastern part of Building No.1 (OY square): a, d: mat fragments; b-c: textile fragments; e: wooden distaff; f: rope fragment





Figure 11. a. Large staircase of Building no. 1; b-c. mud brick platforms in the western part, dated to Period IV of the Shahr-i-Sokhta sequence.

interior walls are covered with white clay plaster and the main entrance is coated with red clay plaster. Space no. 2 is connected to spaces nos. 3 and 8 through the northern entrances and to space no. 5 (central room) by the western entrance.

### Space 3

This space is located in the eastern part of Building no. 20, it is rectangular and oriented east–west. It is connected to space no. 2 on the south and to space no. 8 on the east. It is worthwhile to mention that the entrance in the eastern wall was later blocked with mud bricks.

### Space 4

This rectangular Space is located in the northern part of the Building no. 20. The northern wall has three entrances that

seemingly were blocked with mud bricks and then covered by red clay plaster at the end of the life of the building. The threshold of all these entrance is 15 to 20 cm above the floor. The walls are painted white, while the entrances had two colors, the lower part of the door is white and the upper part is red.

On the southern wall there is a large door measuring  $107 \times 160$  cm. that links spaces no. 4 and no. 5 (Central Room) with a threshold 30 cm above the floor. Likewise, the threshold of the entrance on the western wall is 20 to 25 cm above the floor.

In the southwestern part of space no. 4 there is a rectangular fireplace with curved walls measuring  $113 \times 115$  cm, plastered with white clay. On the southern part of the floor of this space and near the door of Spaces 4 and 5, evidences of a burned trench can be seen. In the northern part of the wall, i.e., outside the original limit of the trench, two bin-like features were excavated. These bins are attached to the closed entrances and in them several objects, such as animal figurines and counters, were found (Figs. 13 and 16).

### Space 5

This is a rectangular space in the center of the trench, oriented east–west, with entrances on all four sides. Given the location and dimensions of this space, it seems that it is the main and the central room of the building. Entry into other rooms was possible only through it.

Space no. 5 is connected to spaces no. 4 to the north, no. 2 to the east, no. 11 to the south. The walls are coated with white clay whereas entrances are covered with red and white clay.

In the southeastern corner of space no. 5 there is a staircase that probably led to the roof. It is worth mentioning that the dimensions of the steps varied, measuring  $30 \times 28 \times 92$ ,  $34 \times 28 \times 92$  and  $16 \times 28 \times 92$  cm.

On the southwestern corner there is a rectangular fireplace with crescent-shaped, 12 cm thick walls made of clay. Its outer part is coated with white clay and its dimensions are  $116 \times 120 \times 20$  cm. The fireplace is filled with a large amount of ash and charcoal. Inside it, fragments of Red and Buff Ware were found (Fig. 16).

### Space no. 12

Space no. 12 is close to the northern part of Building no. 20 and lies north of Space no. 4 (Fig. 17). Probably the northern wall of this space had three entrances, which were blocked when the building ceased to be used. As during the previous season it was not possible to complete the excavation, full information about this space is therefore still lacking. Only two bins attached to the closed entrances were found, with a few archaeological finds such as baked

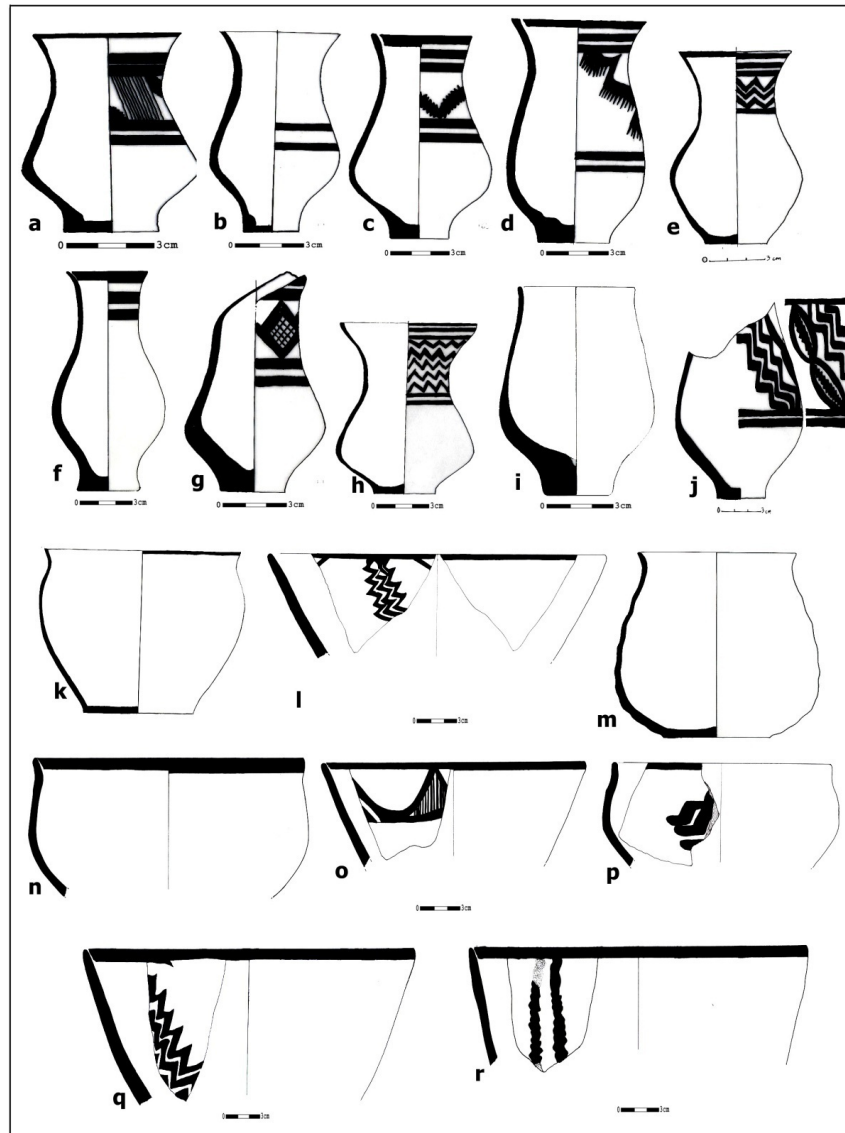


Figure 12. Buff Ware (Phase 7) from Building no. 1

clay ball, probably counters and figurines of wild boars and humped bulls. Also, a large amount of animal bones were found near these bins.

### Archaeological Material

Various archaeological materials were found inside sand layers above floors or fireplaces. The only places where archaeological materials are abundant are the bins of space no. 12 in the northern part of the building. Zoomorphic figurines, clay ball counters and large shells were found around and inside the bins.

Buff and Red Ware pottery fragments were scattered under the debris of the fallen roof of space no. 6. Only a small portion of this space is excavated and it seems to be

a storage trench (Fig. 18: n-s). Red pottery is similar to the one found in Level no. 2 of trench no. 4, including shallow bowls with everted rim and slightly carinated body. Red and buff pottery comparable to the one found at the end of Phase 3 of Period III at Shahr-i-Sokhta sequence has also been found. Other notable samples of ceramic types are the few Buff and Red Ware pottery fragments (Fig. 18: a-m). The discovered specimens of the red ware have fine body, and everted rims with brown or redlines on the body (Fig. 18: n, r).

### Conclusion

The architectural evidences show that the entire structure of Building no. 1 dates with Periods II and III; Levels E

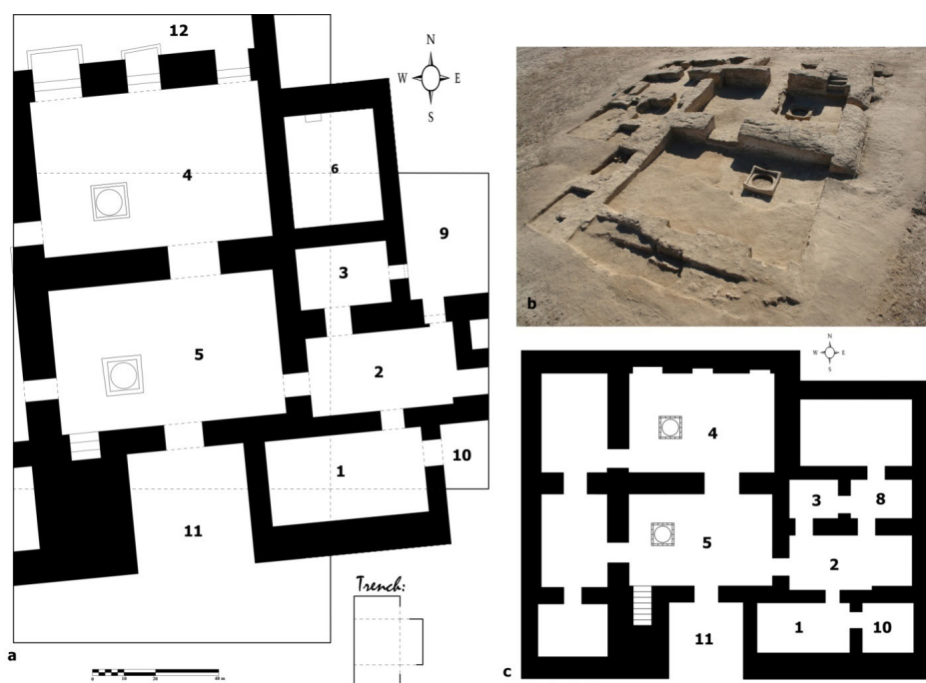


Figure 13. Left: plan of Building 20; Right: photo of the northern side and plan of Building no. 20



Fig. no. 14. General view of Building no. 20.



Figure 15. Red clay plaster of walls of Building no. 20

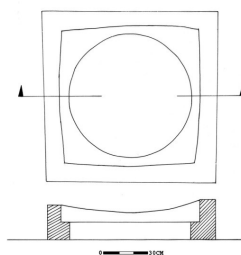
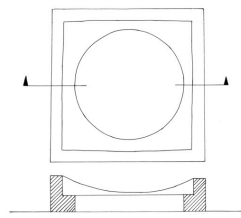


Figure 16. Large fireplaces in Rooms nos. 4 and 5 of Building no. 20

and D; however, that are the focus of this paper date only to Period III. It seems that some artisans' workshops existed in private houses of period II.

On the basis of the plans of the structures of Period II, it can be deduced that most of them followed the usual patterns that can be considered the culmination of regional architectural standards. The plans of some buildings at Shahr-e-Sokhta have many similarities with the residential buildings of Mohenjodaro of Indus Valley civilization (Sarcina 1979: Fig. 1). Most houses are rectangular, built with mud brick, with one or two rooms located in the corners of the building with a narrow access through an indirect path, and large square rooms followed one another in a sequence with direct access.

These rooms open onto a large main room either through a direct entrance or through a narrow corridor, while some doors lead from the main room to other parts of the building. This large room plays the role of a divider and of an access to other spaces of the building.

The plan of house XH is similar to the House of Foundations, the only difference being that access to the interior space is possible through an entrance that opens into a corridor and then onto a main room. Architectural remains of the House of Pits are similar to the ones of the House XH and of the House of Foundations (Mariani and Tosi 1987: 40).

In addition to Levels D and E of Building No.1, a large house of period III has been excavated in the eastern residential trench (Tosi, 1983: 120). Although a complete plan is not known, the structure is similar to the



Figure 17: Space no. 12 in the northern part of Building no. 20

aforementioned houses of Period II, the only difference seem to be its size and the number of small spaces or storage rooms.

The only excavated building of period IV is the Burnt Building, south of the eastern residential trench (Tosi 1983: 73-99). Here we do not see the regular distribution of different spaces based on architecture and functionality observed in the Building No.1 of Period II. In a series of structures that look like storage rooms, fireplaces were found (Fig. 19).

On the basis of the distribution of fireplaces in different spaces and of the plan of the building, with different dimensions and disposition of entrances, it is assumed that, unlike Building No.1, the Burnt Building could have been a multi-core residential house, meaning that an extended family composed by related nuclear families was living there.

On the basis of the large dimension of Building no. 1 and of its comparison with common houses of Periods II and III, it can be deduced that most probably a large nuclear family lived in this building. In other words, this building in Level D was, as it was said above, a kind of aristocratic house, the residence of a clan chief, where a

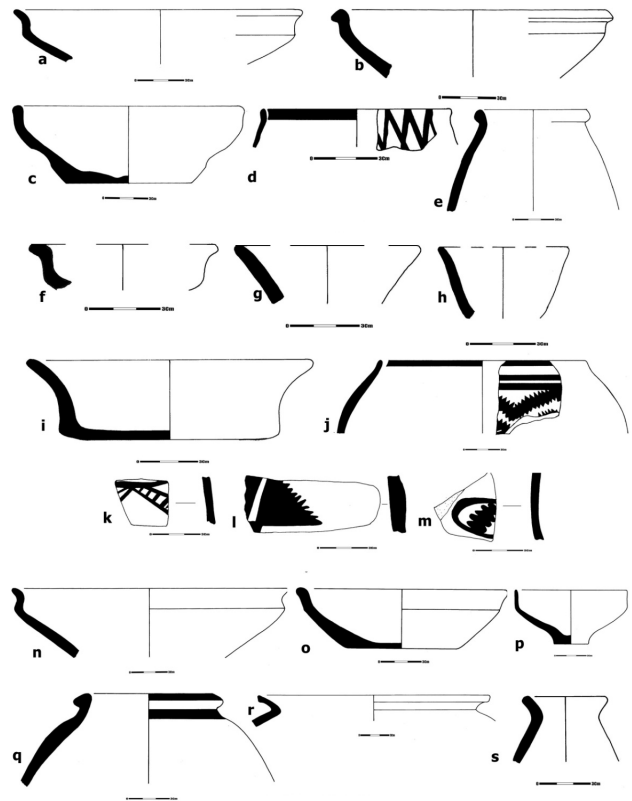


Figure 18: Buff Ware from Building no. 20

number of craftsmen were employed too. This building is a sign of growing social complexity in the Sistan basin and of the development of an aristocracy who had control over resources. The large number of seals and seal impressions found in Building no. 1 supports this argument.

During this period, two aspects of space and spatial organization in Shahr-i-Sokhta can be studied. First, spatial division of trenches for specialized use, e.g. industrial trenches, cemeteries and residential trenches both within the urban context and without it, like at Dasht Tepe (Tosi 1984: 34) and at Tepe Rud-e Biyaban (Biscione 1990: 394), not far from Shahr-i-Sokhta.

Second: architectural design, such as the plan of Building No. 1, with its location of living rooms and storages, plus pottery and textile workshops around it; the latter indicating growth in the number of specialists in Shahr-i-Sokhta. In other words, when Building no.1 reached its peak, population clustered around it. In the OY square, structures belonging to Levels E-D can be seen, indicating the presence of textile workshop in the east and a pottery workshop in the west.

Not much can be said about Building no. 20, because only one season of excavations was conducted there. This

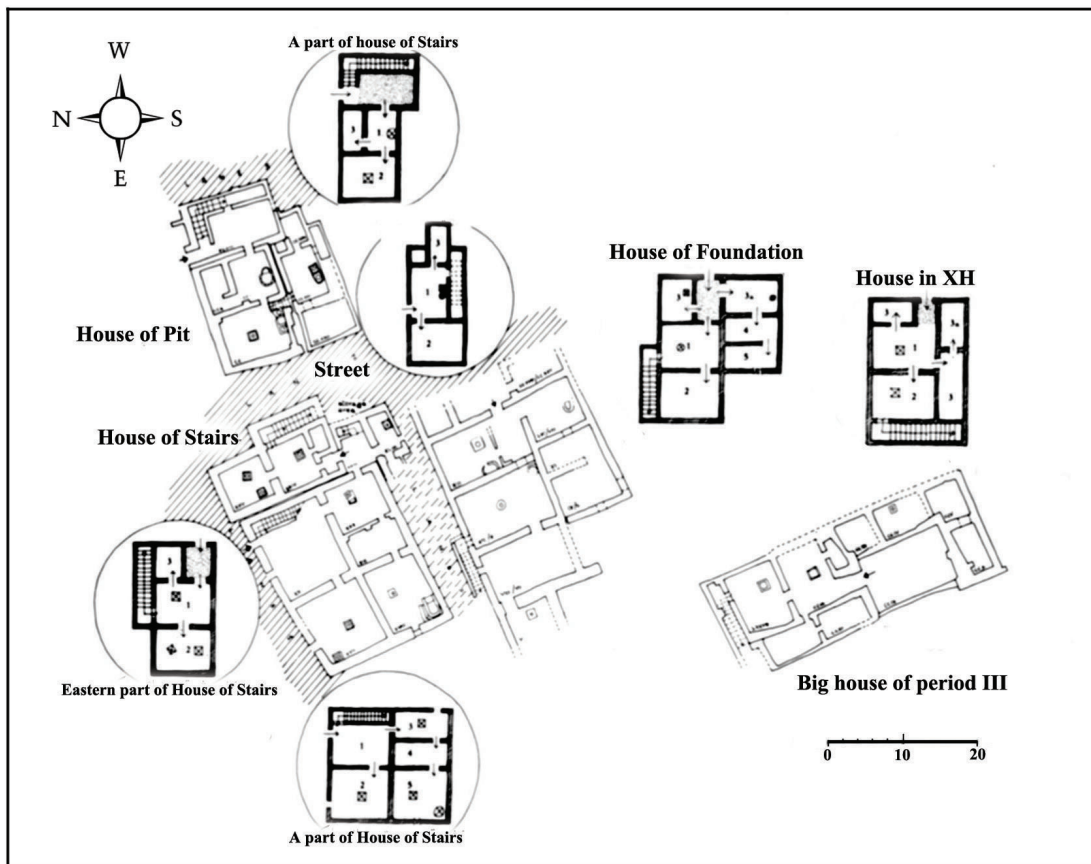


Figure 19: Plan of ordinary houses at Shahr-i-Sokhta II-III (After Mariani and Tosi 1987:40)

building is located on the northern limit of Shahr-i-Sokhta.

If we look at the process of urban expansion during Periods II and III, we can see a continuous expansion through Period I to IV slowly spreading westwards. It is clear that population increased in Shahr-i-Sokhta through Periods II and III. As a result of this population increase Building no. 20 developed in the northern part of the site.

Another reason that makes this building important is its architectural layout. This is a big one-layer building where we encounter new structural styles and decorative colors on its walls.

Large fireplaces and walls colored white and red were innovations that are not seen in other structures of the city. It should also be remarked that abandonment of this building was planned in advance and after its abandonment it was not reutilized anymore.

The entrance to Building no. 20 is well comparable with Level E of Building No. 1. In both structures we found a space with three walls and an opening on the southern side. Transformation of storage rooms and the location of subsidiary structures, such as staircases, on the margin of structures are also common features in both structures.

Unlike Phase A of Building no. 1, the main entrance of

this structure is blocked only with a few courses of mud-brick without mortar. Two more doors have been blocked in this way in the northern part of this building.

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## چکیده‌ی مقالات به زبان فارسی

دوران در مقایسه با ادوار پیشین شاهد حضور به مراتب بیشتر اشیای هنری، جعبه ابزارهای پیچیده‌تر شده و شواهد افزایش در ظرفیت انسانی برای مناسک و باورها هستیم. در ارتباط با پیشرفت اشاره شده، شاید مهم‌ترین تحول در تاریخ زیستی نوع بشر، گسترش گونه‌ی جدیدی از انسان به نام انسان هوشمند هوشمند که با نام انسان با رفتار مدرن نیز شناخته می‌شود است. در این مقاله تلاش شده تا با استفاده از یافته‌های باستان‌شناختی به جای مانده و همچنین یافته‌هایی که به صورت غیرمستقیم به این گسترش مربوط هستند همچون مناسک و آداب تدفین، بیانات هنری، تفکر نمادین، و در نهایت زبان ساختارمند به بحث پیرامون توانایی‌های شناختی برای رشد و توسعه در انسان هوشمند هوشمند پرداخته و در نتیجه خواهیم دید این نوآوری‌ها و پیامدهای آنها چه نقشی در انسان بودن داشته‌اند.

**واژگان کلیدی:** انسان هوشمند هوشمند، انسان با رفتار مدرن، انتقال از پارینه‌سنگی میانی به جدید، شناخت انسانی، خلاقیت انسانی

**آسیای مرکزی به مثابه یک ناحیه هسته‌ای: ایران به عنوان یک منشاء برای اوریناسی**

**اروپا**

مارسل اوت

دانشگاه لیژ

تاریخ دریافت: ۱۳۹۲/۰۹/۱۹

تاریخ پذیرش: ۱۳۹۲/۱۰/۲۹

**خلاصه:** به تازگی تعداد قابل توجهی از محوطه‌های باستانی دارای مجموعه‌های اوریناسی در آسیای مرکزی و همچنین ایران کشف شده‌اند. پراکنش چنین محوطه‌هایی در عرض جغرافیایی یکسان در اروپا و شمال دریای سیاه، موید حرکت آشکار جوامع به سوی غرب از آسیا به اروپاست که با خود فناوری جدید را در حوالی ۴۰ هزار سال پیش به همراه بردند. از آنجایی که پس از این مهاجرت، هیچ گسستی در

**اهمیت داده‌های پارینه‌سنگی ایران در بازگشایی نکات کلیدی در تطور انسان**

جان. د. اسپت

دانشگاه میشیگان

تاریخ دریافت: ۱۳۹۲/۱۱/۲

تاریخ پذیرش: ۱۳۹۲/۱۲/۴

**خلاصه:** ایران به حق برای شواهد باستان‌شناختی فوق‌العاده خود در دوره‌های مفرغ، آهن و ادوار فرهنگی سپسین شهره است، شواهدی که ایران را به یکی از مراکز اصلی آغاز تمدن‌ها در جهان تبدیل نموده است. با این حال و در مقام مقایسه، مدارک بسیار کمتری در مورد پارینه‌سنگی ایران که تقریباً دو میلیون سال قدمت داشته و بیش از ۹۹٫۵ درصد از باستان‌شناسی کشور را شامل می‌شود در دست است. این نوشتار کوشش دارد تا کشفیات جدید در دیرین انسان‌شناسی، باستان‌شناسی و ژنتیک را که فهم ما در درک تاریخ انسان در اوراسیا را دگرگون ساخته‌اند، پررنگ سازد. تعجب آور نیست که در این میان بسیاری از این موارد کماکان در حال تغییرند و بسیاری از نکات و پرسش‌های مطروحه نیز بی‌پاسخ مانده‌اند. هدف از این مقاله نشان دادن توان بی‌بدیل و اهمیت داده نشده مدارک پارینه‌سنگی ایران در کمک به فهم بهتر این مرحله پویا و جذاب از زندگی بشر است.

**واژگان کلیدی:** ایران، خاورمیانه، پارینه‌سنگی، انسان راست قامت، ثاندرتال، پیدایش انسان مدرن

**گسترش خلاقیت انسانی: مواد شناختی در مدارک باستان‌شناسی پارینه‌سنگی جدید**

کامیار عبدی

دانشگاه تربیت مدرس

تاریخ دریافت: ۱۳۹۲/۱۱/۲۸

تاریخ پذیرش: ۱۳۹۳/۰۱/۱۵

**خلاصه:** انتقال از پارینه‌سنگی میانی به جدید (۴۰۰۰۰ سال پیش از حال) و در پی آن دوران پارینه‌سنگی جدید شاهد جهشی عمده در خلاقیت انسانی است. در این



تشابه و تفاوت اندازه‌گیری گردید. نتایج استفاده از این روش حاکی از اینند که تفاوت‌های باارزی در ناحیه‌ی میانی صورت در نئاندرتال‌ها و انسان‌های پارینه‌سنگی جدید مشاهده می‌شود. نتایج همچنین نشان داده‌اند که نئاندرتال‌های اروپایی حداقل از جنبه ریخت‌شناسی ناحیه‌ی میانی صورت، جامعه‌ای منحصربه‌فرد بوده‌اند. **واژگان کلیدی:** آنالیز سه بعدی ژئومتریکی مورفومتریکی، نئاندرتال، ناحیه‌ی میانی صورت، اروپا، انسان ریخت‌های پلیستوسن جدید

مدارک پیش از تاریخ اروپا مشاهده نمی‌شود، می‌توان تمامی این جوامع را نخستین هند و اروپاییانی نامید که از شمال هند تا غربی‌ترین مناطق اروپا پراکنده شدند. **واژگان کلیدی:** نخستین اروپاییان، اوریناسی آغازین، آسیای مرکزی، نخستین مهاجرت‌ها، هند و اروپاییان

### منشاء انسان مدرن: جلوآمدگی ناحیه‌ی میانی صورت، راهبرد سه بعدی

حامد وحدتی نسب\*  
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### کاوش در سازه‌های شماره‌ی ۱ و ۲۰ در شهر سوخته

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تاریخ پذیرش: ۱۳۹۳/۰۳/۱۱

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تاریخ پذیرش: ۱۳۹۳/۰۳/۲۴

**خلاصه:** در این مقاله نتایج مقدماتی کاوش در سازه‌های شماره‌ی ۱ و ۲۰ ارائه می‌گردد. سازه‌ی شماره‌ی ۱، بزرگ و شامل ده‌ها اتاق/فضا است و مشتمل بر ۶ مرحله (مراحل A-F) متناسب به دوره‌های II و III شهرسوخته است. مرحله‌ی A قدیمی‌ترین بوده و بیشتر ساختارهای این مرحله شامل اتاق‌های ذخیره‌سازی همراه با مهرها، اثر مهر و دیگر اشیای اداری است. مرحله‌ی B به خوبی ثبت نگردیده، هرچند تغییراتی در خصوص کاربری در آن مشاهده می‌شود. مرحله‌ی C تا حدودی مشابه مرحله‌ی قبلی است. در مرحله‌ی D سازه به ساختاری بزرگ مبدل گشته که شاید متأثر از رشد پیچیدگی بیشتر در سیستم بوده باشد. ورودی‌های اصلی در قسمت جنوبی قرار داشته، فضاهای زیستی در مرکز و فضاهای ذخیره‌سازی در لبه‌های شرقی و غربی قرار گرفته‌اند. حدود ۵۰ فضا در مرحله‌ی E مورد کاوش قرار گرفتند، ولی بخش اصلی این ساختار مشتمل بر ۱۰ اتاق است. مرحله‌ی F آخرین مرحله‌ی استقرار پیش از ترک محوطه بوده است. سازه‌ی

**خلاصه:** نئاندرتال‌ها در ناحیه‌ی میانی صورت خود خصایص ریخت‌شناسی ویژه‌ای دارند که آنان را با تمامی غیر نئاندرتال‌های هم‌عصرشان و همچنین تمامی انسان ریخت‌ها متمایز ساخته است. در انسان نئاندرتال استخوان‌های نواحی گونه‌ای و فک بالا در مقایسه با انسان‌های مدرن کشیده‌تر شده که در نتیجه ناحیه‌ی میانی صورت به گونه‌ای جلوآمده که در هیچیک از انسان‌های مدرن دیده نمی‌شود. این ویژگی به نام جلوآمدگی ناحیه‌ی میانی صورت شناخته می‌شود (MFP). کاسته شدن از میزان جلوآمدگی ناحیه‌ی میانی صورت یکی از نکات کلیدی در تمایز بین نئاندرتال‌ها و انسان‌های مدرن است، تا جایی که برخی آن را یکی از مهمترین بروزات ریختی "مدرن شدن" نامیده‌اند. در این پژوهش میزان تشابه در ناحیه‌ی میانی صورت انسان ریخت‌های پلیستوسن جدید اروپا شامل نئاندرتال‌ها و انسان‌های پارینه‌سنگی جدید سنجیده شده است. برای سنجش درجه‌ی تشابه در ناحیه‌ی میانی صورت، روشی نوین بنام آنالیز سه بعدی ژئومتریکی مورفومتریکی (GM3DA) برای این پژوهش تدوین گردید. نرم افزار رایانه‌ای، داده‌های خام ریخت‌شناسی را تبدیل به منحنی‌هایی نمود که قابلیت استفاده‌ی آماری داشته و از این طریق میزان

وجود می‌توان تاحدودی کاربرد الاهی آتش را در متون اورارتویی در رابطه با مهمترین خدای اورارتو، خالدی ردیابی نمود. این نوشتار در پی آن است تا با استفاده از شواهدی همچون نمایش خالدی بر روی یک سپر از محوطه‌ی باستانی انزاف و آتشدان‌های محوطه آیانیس، نشان دهد که آتش برای خالدی برپای گردیده بوده و می‌توان از آن بعنوان "آتش پیروز" یاد نمود. همچنین خالدی خود می‌توانسته به عنوان الاهی آتش در نظر گرفته شود جایی که ویژگی‌های آتش پیروز را دارا بوده: همواره سوختن، ارتباط با خدای پیروزی، سوختن در معابد و حتی شاید هم نیاز به قربانی و نذورات.

**واژگان کلیدی:** الاهی آتش، خالدی، خدای پیروزی، اورارتوییان

شماره‌ی ۲۰ در شمال غرب سازه‌ی شماره‌ی ۱ واقع شده است. کاوش به مدت ۲۵ روز به طول انجامید و به اتمام نرسید. سازه‌ی شماره‌ی ۲۰ دارای ۱۲ فضا به صورت شمالی جنوبی است که از خشت ساخته شده‌اند. اتاق‌ها با زاویه مستقیم نسبت به هم قرار داشته و دیوارها تقریباً ۷۰ تا ۸۰ سانتی متر ضخامت دارند. ورودی‌های اصلی این سازه عموماً با دو لایه از اندود سفید و قرمز پوشیده شده‌اند. دو اجاق بزرگ پر از مقادیر زیاد خاکستر و زغال از فضاهای ۴ و ۵ به دست آمدند. قسمت خارجی اجاق‌ها با اندود رُسی پوشیده شده است. بر اساس مواد اندک فرهنگی به دست آمده که بیشتر قطعات سفال هستند، این سازه مربوط به دوره IV است.

**واژگان کلیدی:** شهرسوخته، اجاق، سازه‌های شماره ۱ و ۲۰، تخصص‌گرایی

## آخرین زن فرمانروا در ایرانشهر: ملکه آذرمیدخت

تورج دریایی

دانشگاه کالیفرنیا، ایرواین

تاریخ دریافت: ۱۳۹۳/۰۱/۲۳

تاریخ پذیرش: ۱۳۹۳/۰۲/۱۴

**خلاصه:** ملکه آذرمیدخت، آخرین ملکه از سلسله ساسانیان بوده که در خلال صدی هفتم میلادی بر ایرانشهر حکمرانی می‌کرده است. در این نوشتار برآنیم تا با مرور زندگی و تصمیماتی که از جانب وی اخذ شد خاطره‌ی پدرش خسرو دوم (خسرو پرویز) را احیا نماییم. یکی از اعمال آذرمیدخت ضرب سکه با تصویر پدرش و نام خود بوده است. در این نوشتار در مورد این حرکت وی فرضیه‌ای جدید ارائه گردیده است. این مقاله نتیجه می‌گیرد که در پس ترور آذرمیدخت، نجیب زادگان اشکانی همچون اسپهبد فرخ هرمزد و پسرش رستم فرخزادان قرار داشته‌اند.

**واژگان کلیدی:** امپراتوری ساسانی، سکه‌شناسی ساسانی، ملکه آذرمیدخت، خسرو پرویز، اسپهبد فرخ هرمزد، رستم فرخزادان، فرمانروای زن ایران

## آیا خالدی خدای آتش پیروز در نزد اورارتوییان بوده است؟

مریم دارا

سازمان میراث فرهنگی، صنایع دستی و گردشگری ایران

تاریخ دریافت: ۱۳۹۳/۰۲/۲۰

تاریخ پذیرش: ۱۳۹۳/۰۳/۲۱

**خلاصه:** آتش جایگاهی مشخص در نزد اقوام باستانی داشته و نزد آنان از احترام و قداست برخوردار بوده است. جایگاه تقدیس شده‌ی آتش در نزد اقوام مختلف باستانی تا حدود زیادی مشخص گردیده، با این وجود این مهم کمتر در نزد اورارتوییان شناخته شده است. عموماً در نزد اقوام باستانی الاهی‌ای به نام خدای آتش وجود داشته که در مورد اورارتوییان چنین نبوده است. این مسئله از این نظر غیرمعمول می‌نماید که قاعدتاً آتش می‌بایست در محیط سردی که اورارتوییان در آن زندگی می‌نمودند از اهمیت ویژه‌ای برخوردار بوده باشد. هیچ ردی از اهمیت آتش و یا الاهی‌ای در این مورد در متون سلطنتی اورارتو دیده نمی‌شود، با این