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The Eastern Iran Prehistoric Archaeological Project: The Second Season of Archaeological Excavation at Kale Kub, Southern Khorasan Province (2019)

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(133-152)

Abstract

After more than one hundred years from the beginning of archaeological studies in Iran, the eastern regions of the country have received scarce or no attention from archaeologists, and there are very limited publications resulting from archaeological activities in this part of Iran. The prehistoric site of Kale Kub Ayask is one of the few prehistoric sites of South Khorasan province, and indeed in the whole eastern Iran, containing sufficient cultural deposits to provide a reliable chronology of the prehistoric cultural sequence of this region. Excavations at the site have led to the identification of the unknown prehistoric cultures in the area. The most significant achievement of the excavation is the identification of cultural materials dating to the fourth millennium BCE with southwestern and Mesopotamian origins. This cultural evidence, which can be considered as horizons of the culture of Susa II or the Late Uruk period, includes the typical pottery types of this period, such as beveled rim bowls, coarse Banesh trays, tubular vessels, nose-handled jars, patterned, and fine wheel pottery. This evidence has been long known in the southwestern, western, northwestern, southeastern, and central plateaus of Iran, but this is the first time they have been identified in eastern Iran. Based on geophysical studies, pristine places were selected to survey during the second season of excavation at the Kale Kub site, and the excavation of trenches with wider dimensions has lead to the identification of the prehistoric architecture of the site.

Keywords: Kale Kub, Architecture, Trade, Raw Materials, Susa II

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Introduction:

The Kale Kub Ayask is located in the Sarayan district of South Khorasan province (Figures 1 and 2). Prehistoric studies in the eastern regions of Iran have up to now been severely limited overall and the studies that have been accomplished are almost entirely concentrated in the southeast and northeast of Iran whereas the central eastern regions have received scant attention due to the harsh climatic conditions of the vast deserts of the region, the Dasht-e Lut and Dasht-e Kavir. However, in recent years, almost the entirety of the province of South Khorasan has been surveyed by the province's General Directorate of Cultural Heritage, Handicrafts and Tourism. The number of identified prehistoric sites is extremely limited, however, and another problem with these sites is they have generally been damaged by human and geological factors. Kale Kub is perhaps one of the few prehistoric sites in the province with substantial intact deposits.

Kale Kub is located on the edge of three active alluvial fans where the sedimentation rate is very high, in an area where between one and one-and-a-half meters of fine-grained alluvial sediment layers have covered the whole plain. This is the reason why farmers have been interested in this area. High-quality agricultural lands and gardens are located in the western and southwestern parts of the Ayask town. Agriculture is the main occupation of the people of this region today, and in recent years, due to the digging of numerous deep wells, almost all areas that had arable land, have cultivated crops such as wheat, cumin, and especially saffron and pistachios. The site of Kale Kub is also located between these farms and therefore, had been almost destroyed by the landowner to create arable agricultural fields.

Kale Kub was initially excavated over two seasons between 2008 and 2011 (Anani, 1391: 1); in 2008, the site was inscribed on the list of national monuments of Iran, number 23005. Based on these two seasons, the total area of the site is estimated to be approximately seven hectares. In 2018, Kale Kub was excavated for stratigraphic studies. The particular purpose of this season was to provide both a relative and absolute chronology for the site and to identify the cultural sequence of its prehistoric settlements (Azizi Kharanaghi et al., 2021). For this purpose, two small 2m×2m trenches were excavated in the central part of the site, next to the previously excavated areas (Azizi Kharanaghi et al., 2018). In 2019, the second season of excavation of the present project was carried out in the same vicinity (Azizi Kharanaghi et al. 2019), as well as at several new loci determined by geophysical survey to be of interest.

Figure 1: Geographical Location of Kale Kub

As mentioned above, during the fourth millennium BCE—i.e., simultaneous with the formation of complex societies and the beginning of urbanization in Mesopotamia—we see the emergence of regional and trans-regional trade relations and consequently some degree of cultural homogeneity indicated by the presence and distribution of, for example, beveled rim bowls. Eastern Iran has always been considered to be part of these networks because of its location along the trade routes of mineral resources such as lapis lazuli and metals. The excavations at Kale Kub have revealed evidence of the presence of a beveled rim bowl and other diagnostic pottery from the fourth millennium BEC cultures of Mesopotamia and southwestern Iran. Analysis of the findings from this area can explain the position of eastern Iran in the broader cultural interactions of the fourth millennium BC cultures on the Iranian plateau. The results obtained from the first season of the current campaign led to the expansion of excavation in the second season. In this season, after conducting extensive geophysical studies, various trenches have been excavated which led us to identify prehistoric architectural remains, which may be industrial installations.

Research questions and hypotheses

The key questions of this research are as follows. What are the characteristics of the fourth millennium architecture at Kale Kub? What is the reason for the formation of this site, especially during the fourth millennium BCE in this region, especially in light of its special climatic conditions? What role did the region play in the supply of raw materials and craft products for exchange, compared with similar centers located in the Central Plateau and Kerman?

Geographical location of South Khorasan

South Khorasan is located in eastern Iran and has an area of ca. 90000 square kilometers. This province covers about 5.4% of the total area of Iran, which is bordered on the east by Afghanistan, to the north by Khorasan-e Razavi, to the northwest and west by Yazd, to the southwest by Kerman, and to the south by Sistan and Baluchestan. In 2004, the province of Khorasan was divided into three new provinces: North Khorasan with the center of Bojnord, Khorasan Razavi province with the center of Mashhad, and South Khorasan province with the center of Birjand. The most important cities of this province are Birjand, Ghaenat, Nehbandan, Sarbisheh, Darmian, Ferdows, Sarayan, and Boshravieh (Deputy of Culture and Communication, 2005: 15-14).

The Sarayan district is located in the northwest of South Khorasan province and in terms of geographical location is located around the intersection of 33° 52' north latitude and 58° 30' 40" east longitude. Sarayan is bounded to the north by Gonabad, to the south by Birjand, to the east by Ghaen and to the west by Tabas; its distance to Birjand (the center of the province) is 156 km. The climate of the region is divided into two dry types: cold and hot. This climate is largely due to the mountain ranges in the north of the district and the presence of desert plains in the south. The northern reaches of the area are cold in winters and mild in summers due to the numerous mountain ranges and valleys; most of the region is, however, covered by dry plains and deserts (Annani, 1391: 13-12).

In the south of Sarayan, there is a vast plain whose soil is very fertile for agriculture. Sarayan is further divided into two small townships, Seh Qale (which occupies most of the plains and deserts) and Ayask, which has a relatively milder climate. In these areas, most people today are engaged in agriculture due to the existence of motorized wells. In the past, the village of Seh Qale had used the many qanats that provided drinking and agricultural water; after the advent of deep mechanical wells, however, most of these qanats dried up and this issue caused the migration of most people in this village. The general slope-aspect of this region, especially around Sarayan, grades from northeast to southwest. Due to the town's location in a relatively flat area, there is no special natural feature around the city and only a few natural issues can be mentioned around it (Sarayan City Master Plan, 2009, vol. 2: 8).

Research background

With its rich culture and brilliant civilization, Iran has always been the center of scientific, archaeological, and cultural research. Khorasan has been the wellspring of numerous fundamental movements and events in Iranian history. In short, the region has always played a crucial role in Iranian culture. Unfortunately, due to the lack of sources and reasoned historical and archaeological sources in southern Khorasan, as well as due to the dearth of fieldwork, there are still many ambiguities in the field of archaeology in this region to be resolved (Soroush, 2012). From 1900 to 1978, among 727 archaeological projects conducted in Iran, only eighteen cases, less than 2.5%, were allocated in Khorasan. After the Islamic Revolution, the process of archaeological research in Khorasan has accelerated, and that research has helped us to better understand the historical ambiguities of Khorasan (Labaf Khaniki, 2012: 28). In this section, greater emphasis is placed on

archaeological research in the province of South Khorasan, and an attempt is made to introduce a part of archaeological activities in this area. For the first time in 1941, Jamal Rezaei and Sadegh Kia took steps to study archaeology and read the Parthian inscriptions of Kal Jangal (Behnia, 2002: 371). In 1949, Carlton Coon from the University of Pennsylvania excavated Khoeinik Cave, a site located 18 km away from Qaen, an inhabitation dating back to 35,000 BCE (Coon, 1951).

A systematic archaeological survey of Khorasan from north to south was carried out in 1977 and 1978 under the supervision of Faeq Tawhidi, and relative knowledge of the cultural and historical capabilities of each of the cities of Khorasan was thereby obtained (Tawhidi, 1977, 1978). The study of Qasbeh Gonabad qanat was carried out in 1990 by Labaf Khaniki during a one-month research program. The length of the qanat is about 33,113 meters and 472 wells have been drilled along its gallery. The depth of the mother-well is about 300 meters. Next to one of the wells of the main branch, ceramics similar to Dahan-e Golaman have been found, which are approximately two thousand years old (Labaf Khaniki, 1997: 298-271). During the archaeological survey of Birjand, in the village of Lakhmzar, a wide collection of petroglyphs was discovered, expressing the beliefs and art of the ancient past and also the presence of people and tribes such as Hepthalites (Labaf Khaniki and Bashash, 1994: 76-74). The following areas have been surveyed: Ferdows in 1996 by Mahmoud Bakhtiari; Ghaen in two seasons in 1997 and 1998 by Ali Hassanabadi; Bardaskan in 1998 by Mahmoud Bakhtiari, and Sarayan in 2004 by Alireza Nasrabadi; Takhcharabad site in 1999 by Ali Hasnabadi (Labaf Khaniki, 2012: 152-142); Kale Kub in 2008 and 2009 (Yousefi, 2009); Kundari Tapeh, a settlement of the prehistoric and historical periods in Ghainat, surveyed in 2008 (Yousefi, 2008); the Palaeolithic cave of Chehel Dokhtaran in Sarbisheh (Behnia, 2002: 383); the prehistoric site of Sar Takht Baghistan in 2004 (Zafranloo, 2004). Takhcharabad is possibly the only site dating to the late prehistoric period that has been excavated in South Khorasan province, investigated for four seasons (Dana, 2019: 406). This site is located near Birjand and archaeological studies are ongoing there. The excavator of this site proposed its chronology as spanning the Late Iron Age III and pre-Achaemenid periods (Dana, 2019). Furthermore, Kale Kub was intensively excavated in 2018, which led to the discernment of the relative chronology of the site and the identification of its cultural materials from the fifth to the second millennium BCE (Azizi Kharanaghi et al., 2021).

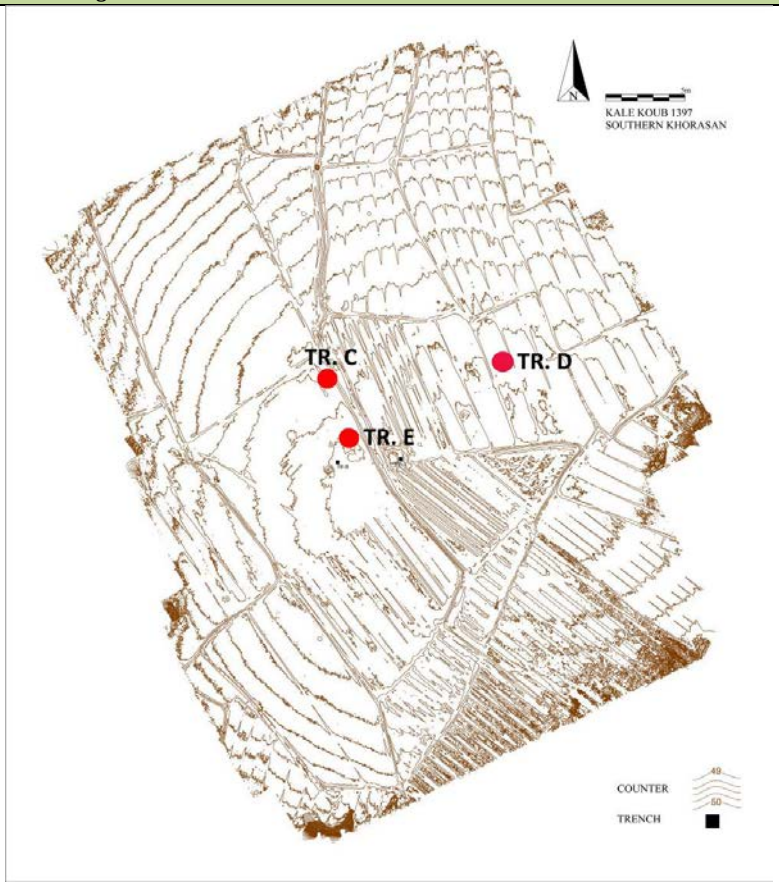

Figure 2: Kale Kub topographic map, showing the locations of Trenches C, D and E

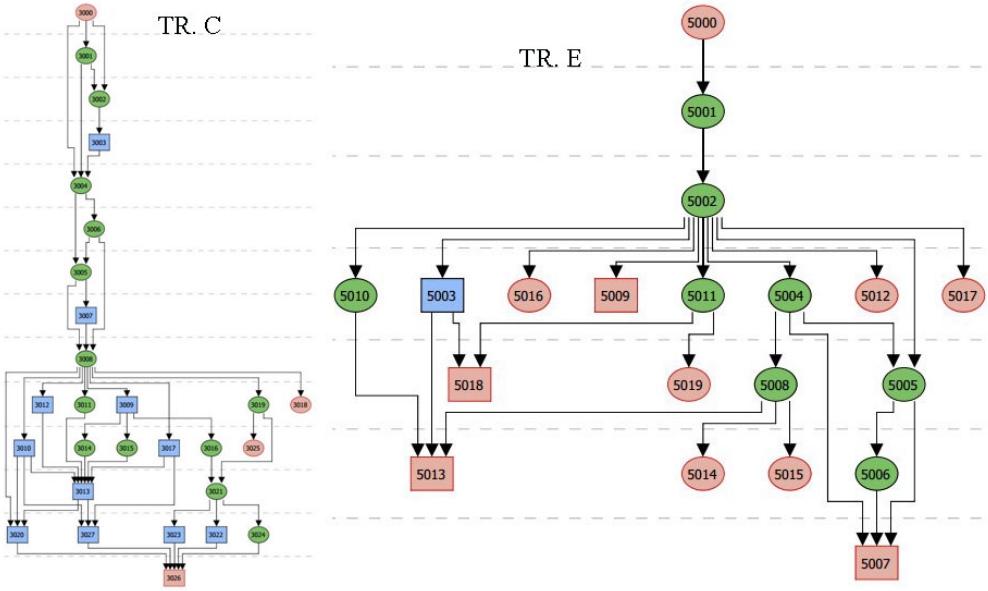

Figure 3: Harris matrix charts of Trenches C and E of Kale Kub 2019

Description of excavation, Trench C:

Trench C (5m×5m) was excavated to identify the architectural structures and cultural layers of the site according to anomalies identified during the geophysical survey of the central part of the site. The elevation of the area of the site where

this trench was dug, which also has a gentle slope from east to west, is 1359 meters above sea level. During the excavation in this trench, 28 separate contexts, with depths below the datum of up to 210 cm were recorded, along with their various cultural materials. Finally, the excavation of this trench at an altitude of 1356.90 meters above sea level was completed in context 3026 with the identification of two architectural phases which were filled with windblown sand (Figure 5). Due to the richness of the architectural remains found in this trench, and because of their extension into the space beyond the opened trench, the expansion and continuation of excavation around this area must be one of the goals of excavation in future seasons.

Figure 4: Architectural remains found in Trench C, Kale Kub 2019

With a general and initial look at the condition and nature of the architectural and cultural remains found from the excavation in this trench, which resulted in the discovery of 28 distinct contexts, the architectural remains found can be summarized in two different and superimposed architectural phases. The earlier phase of architecture in this trench includes Contexts 3020, 3022, 3023, 3027, and 3026, all of which, form a single architectural complex of related structures in the form of a thermal structure or kiln (Figure 4). This thermal structure consists of 4 interconnected walls in the area exposed inside the trench; Wall 3020 divides this structure into two parts, i.e., the eastern and western space. The floor of this structure is was observed to have a heavily burnt texture with colors ranging between black and grey; it was registered as Context 3026. During the excavation of the interior of this context, the remains of heavy mud-brick debris were found along with pieces of mud with the negative imprints of organic matter (plant stems), which could be a sign of the existence of a roof made of plant materials such as tree stems and wood. The later phase of architecture in this trench is based

on the elements of the kiln structure. The architectural remains belonging to this phase include three walls, Contexts 3010, 3012, and 3017, which form an adjoining right-angled architectural space. The floor of this space was registered as Context 3013. A little distance away, in the northern part of this architectural structure, there are traces of a heated floor in the shape of a concave circle and burnt soil around it (Context 3009), which is probably part of a small thermal structure of the same period and belongs to the new phase of architecture in this trench.

This space's function and its architectural structure are not clearly known, but due to the finds of different types of stone tools and a large amount of debris within it, is possible to hypothesize that the use of this space was not unrelated to the production of stone tools. However, firm conclusions about the architecture and its dating require further study and excavation.

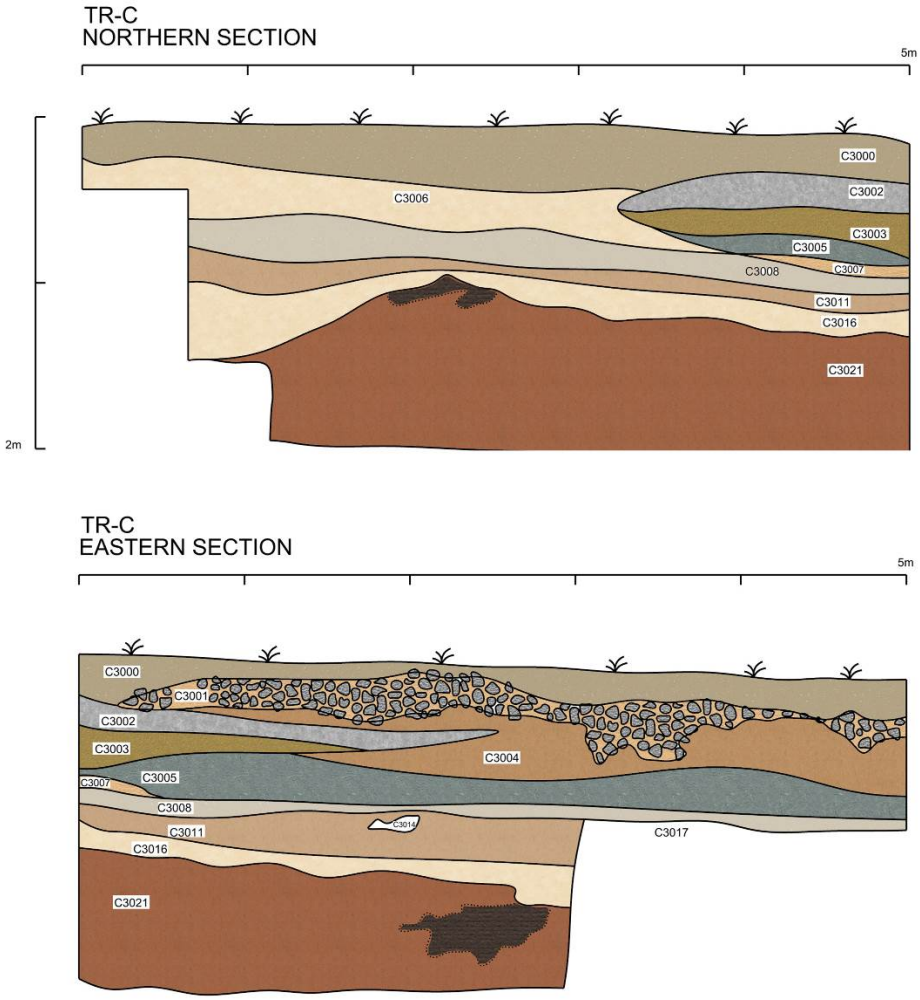

Figure 5: Northern and Northeastern sections of Trench C, Kale Kub 2019

Test Trench D

Test Trench D (2m×2m) was dug in the northern part of the site at an altitude of 1360 meters above sea level in areas covered by pebbles which were excavated to identify the spatial extent of cultural layers of this part of the site. After 136 cm digging in this trench, five separate contexts were identified along

with several different phases of cultural materials. Finally, at an altitude of 1358.64 m above sea level, excavation of this test trench was halted due to the lack of cultural materials. In total, from the five contexts identified in this trench, several ceramics, stone tools, and grindstones were found (Figure 6). Context 4002 can be considered as the only in situ deposit of the trench, which was probably part of a thermal feature. Geophysical studies in this sector of the site had suggested the possibility of burials or heated structures, which were identified through excavation; the heated surface (Context 4002) correlated to one such anomaly. The other loci and contexts in Trench D are very similar to each other and contain a large amount of fine-grained sand along with clay, which seems to be the result of long-term sedimentation of surface water or the accumulation of large volumes of water in this part of the site (Figure 7).

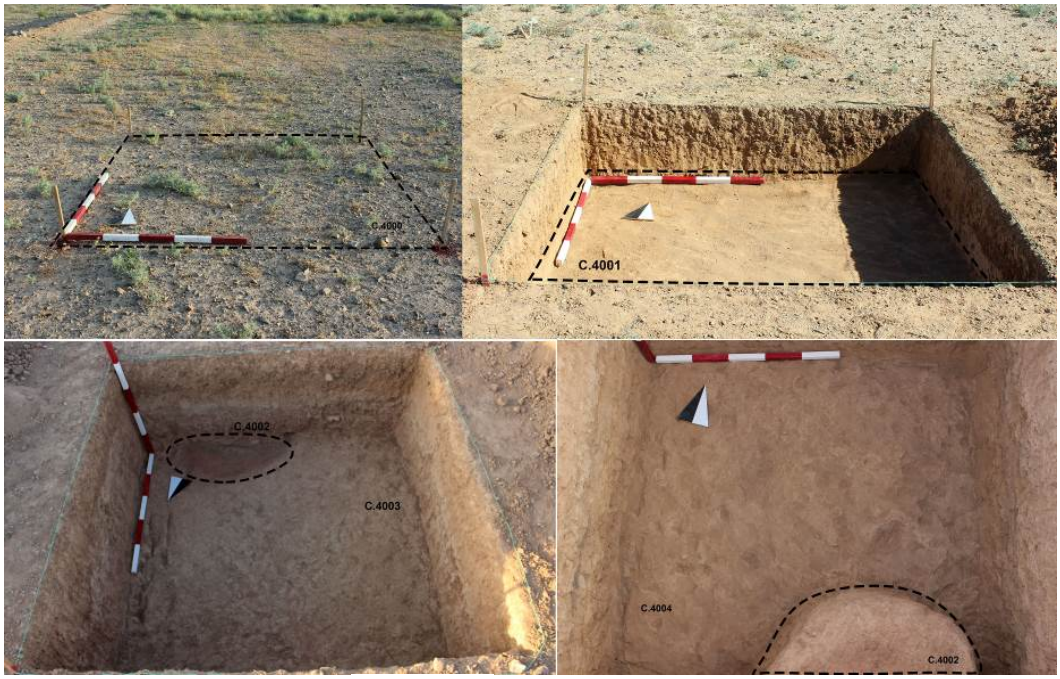

Figure 6: excavation steps of test Trench D, Kale Kub 2019

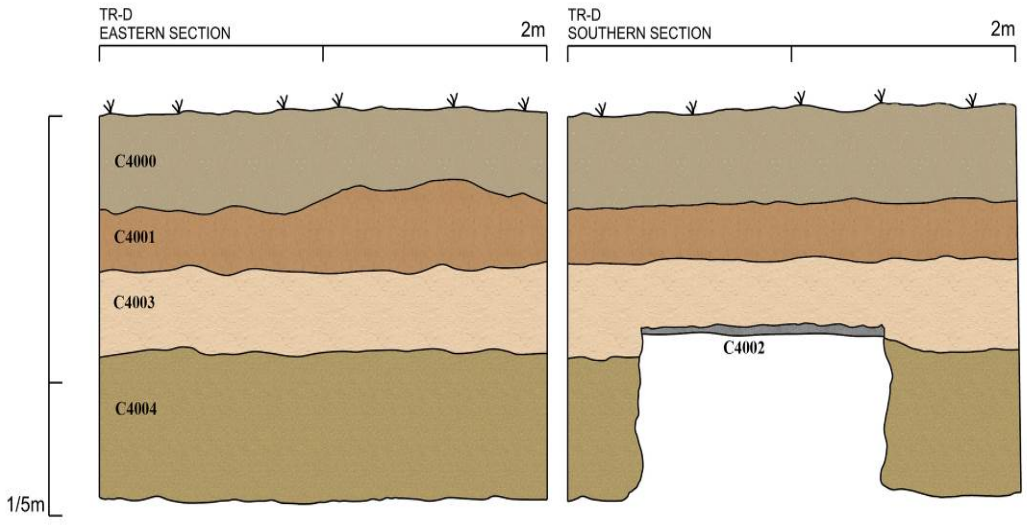

Figure 7: Eastern and Southern sections of Test Trench D, Kale Kub 2019

Trench E

Trench E (2m×2m)was opened near the illegal excavation area and to the north of Trench B from the first season of this campaign. Trench E was opened to identify cultural and architectural layers in this part of the site.

The excavation was expanded in two stages, ultimately reaching 3m×4m. The altitude of the basal level of this trench was recorded at 1358.50 meters above sea level and at a depth of 130 cm from the datum of the trench. Excavation only stopped due to the end of this season and also because the extensive architectural remains that were uncovered needed much more time to excavate. In total, twenty separate contexts, along with two architectural phases were identified in this season (Figure 8). Finally, this trench was backfilled after the completion of documentation and excavation steps.

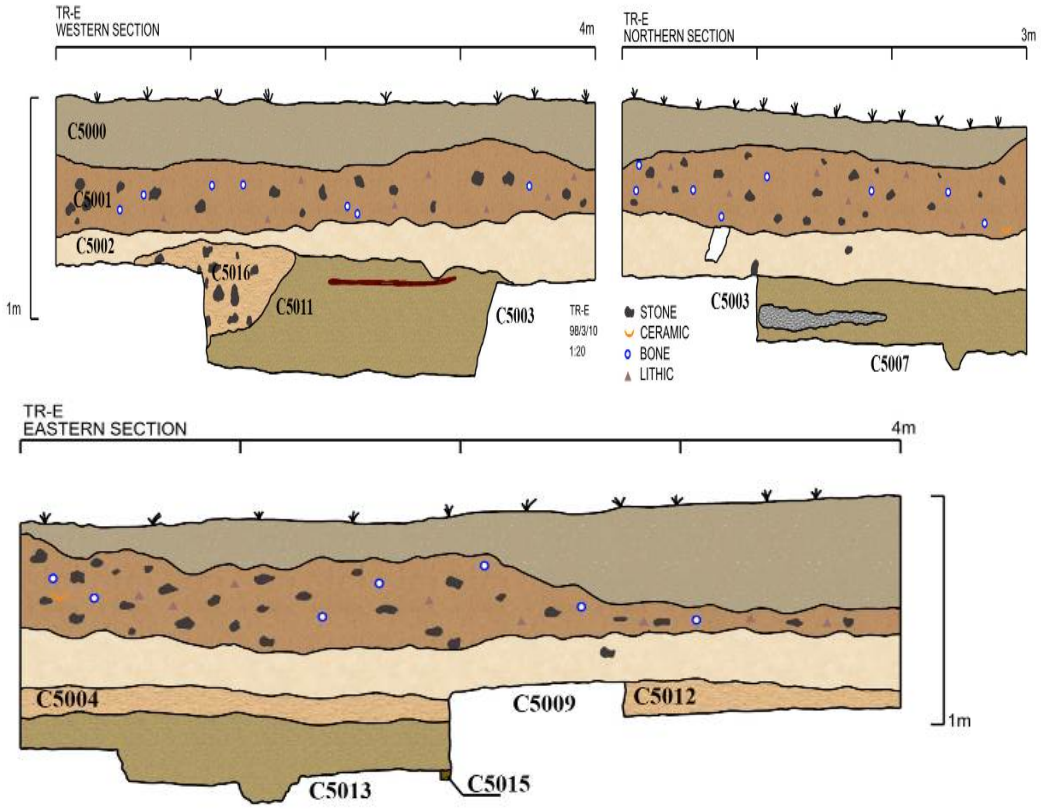

Figure 8: Western, Northern, and Eastern sections of Trench E, Kale Kub 2019

The twenty different contexts found in this trench can be divided into two architectural phases. The earlier phase, which lies beneath the remnants of the new period and consists of two walls (5013 and 5018), was not fully excavated because of the trench's dimensions and because time constraints did not allow further excavation. However, it appears that during the construction phase of Wall 5003 during the later phase, parts of the older architectural structure just below this wall were likely damaged. Remains of the later phase architecture, which includes two walls (5003 and 5009) and a circular mud-brick structure (5007) were built directly atop the remnants of earlier phases and probably involving the

partial destruction of the earlier features (Figure 9). The remnants of the later phase indicate the complex and rich structures of this phase, which with the further expansion of excavation in the area around the trench in the coming seasons can lead to accessing useful information about the culture and living conditions of the inhabitants of this area.

Figure 9: Orthophoto plan view of Trench E, Kale Kub 2019

Pottery

From the excavations of Trenches C, D, and E during the second season of the Kale Kub excavation in 2019, eight different pottery types were identified. The variety and sequence of pottery types form the basis of the relative chronology of the site. The study of pottery was done in two stages. First, the initial classification, in which all pottery pieces were counted, weighed, and classified according to different types, and then the second stage, which was done by selecting diagnostic shreds and measuring and accurately describing each piece of pottery. In general, 2512 pieces (Trench C: 1328, Trench D: 10, trenches E: 522, and Trench F: 650) have been identified from the mentioned trenches and among those 587 pieces were selected and studied as diagnostic pottery (Figure 10).

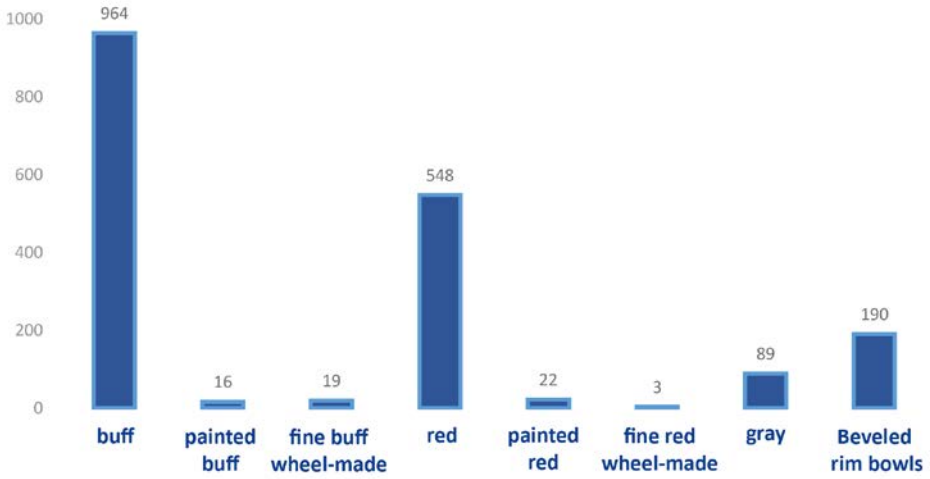

Figure 10: Ware-type distribution from the second season of Kale Kub excavation, 2019

Simple buff and reddish wares

This type of pottery is found across almost the entire stratigraphic sequence of the excavated trenches. In the lower layers, it is coarse with a temper of coarse sand, and in the upper layers it is a finer ware and tempered with finer sand. This ware is handmade and its color ranges are from buff to reddish or orange. The pottery pieces are usually covered with a thin clay slip and are sufficiently fired. Forms are generally simple and include open-mouthed bowls with simple rims. However, relatively deep bowls with vertical edges and small pots can also be seen (Figure 7 and Figure 14, Nos. 1 to 10). Unfortunately, due to its simple form and presence in all layers with only slight changes, this type of pottery cannot yet be dated.

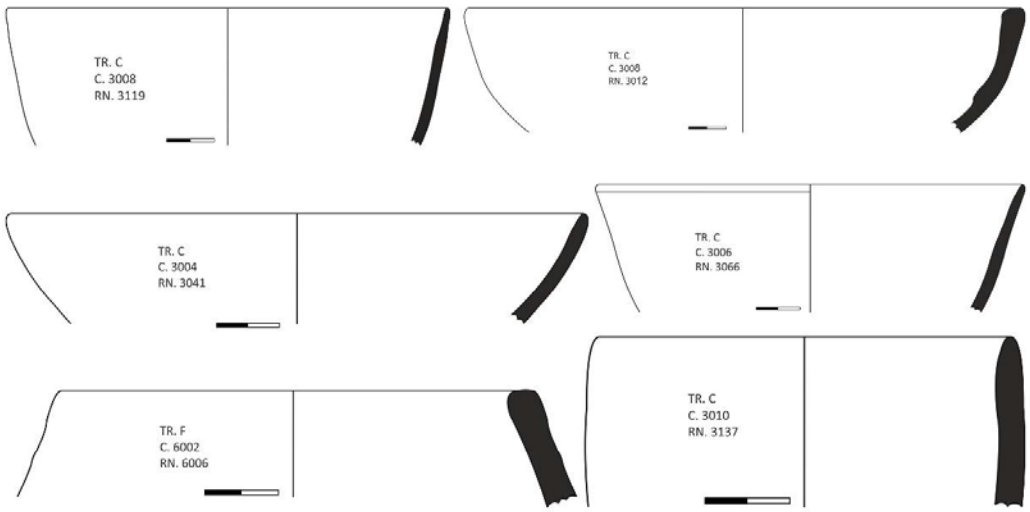

Figure 11: Samples of simple buff/reddish/orange ware from Kale Kub, 2019

Gray ware

This type of pottery has been obtained from only a very small number of the upper layers of Trenches C, D, E, and F, from insecure contexts located in the chronological sequence of the site in the period of the third and second millennia BCE, belonging to the Bronze Age (Azizi Kharanaghi et al., 2021). These ware

types are handmade and have a mixture of sand, thin clay slip, and improper firing. Forms include simple bowls with simple edges and uneven outer surfaces (Figure 12 and Figure 14, numbers 11 to 17).

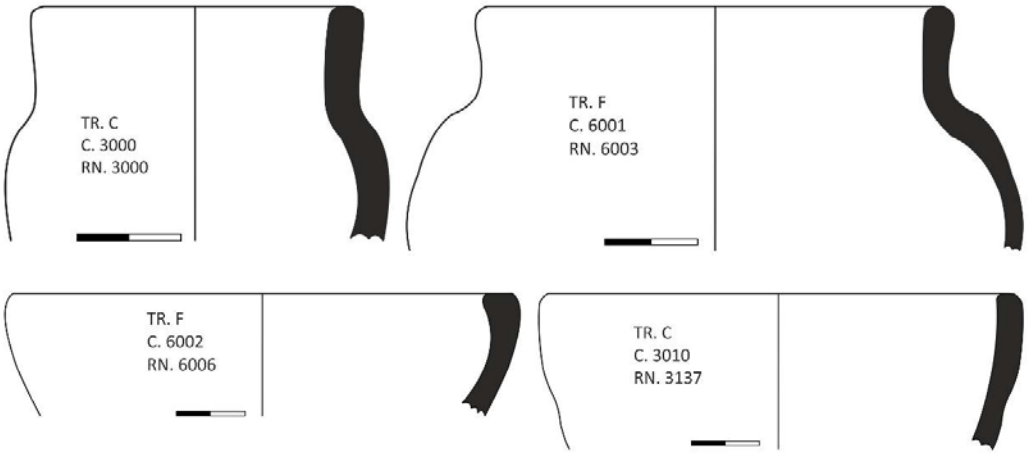

Figure 12: Samples of gray ware pottery from Kale Kub, 2019

String Cut Base

This type has been identified along with other types of diagnostic pottery of the fourth millennium BCE from the Kale Kub II period. This pottery consists of simple, open-mouthed, possibly slow-wheel thrown, rough bowls with a mixture of sand, a thin clay slip, and decent firing. The color of the pottery core ranges from buff to orange and the separation of the pottery from the pottery wheel was done by thread, which is marked on the bottom of the pottery as concentric parallel lines, and because these lines are not smooth or completely parallel. Thus, we infer that the slow pottery wheel was probably used to produce such pottery (Figure 10, No. 24). Similar samples have been identified from Tappeh Qabrestan in the Qazvin Plain (Fazeli Nashli, 2006: 147: Figure 21-4).

Beveled rim bowls

This type is a handmade, rough container with outer edges that often have a porous outer surface and an inner surface slightly smoothed with a wet hand (Fig. 13 and Fig. 14, Nos. 18 to 23). Beveled rim bowls have been identified from several areas in Mesopotamia, Syria, Turkey, Iran, and a few sites in Pakistan. This type of pottery has been obtained from several areas of Iran, particularly from the southwest to the southeast, center, and west of the Iranian plateau. The geographical area of the distribution of the Beveled rim bowls indicates the wide spread of this pottery culture across Mesopotamia and the Iranian plateau. Beveled rim bowls have been obtained from southern Turkey to southwestern Pakistan, but samples of these vessels had up until now not been found in Khorasan or Sistan, as well as in northwestern Iran (Mutin, 2013: 61-62). The use of Beveled rim bowls is considered have primarily been during the period of about 3500-2700 BCE, which is about 800 years for the use of a type (Abdi 1378, 66). In both Trenches A and B of Kale Kub, there is a layer of accumulation of pottery, including a Beveled rim bowl and a Banesh tray (Azizi Kharanaghi et al., 1399), among which are pottery that has turned green-gray due to overfiring,

which indicates the possibility of local production of Beveled rim bowls at this site. These types have been identified along with other types of diagnostic pottery of the fourth millennium BCE of the Kale Kub II period.

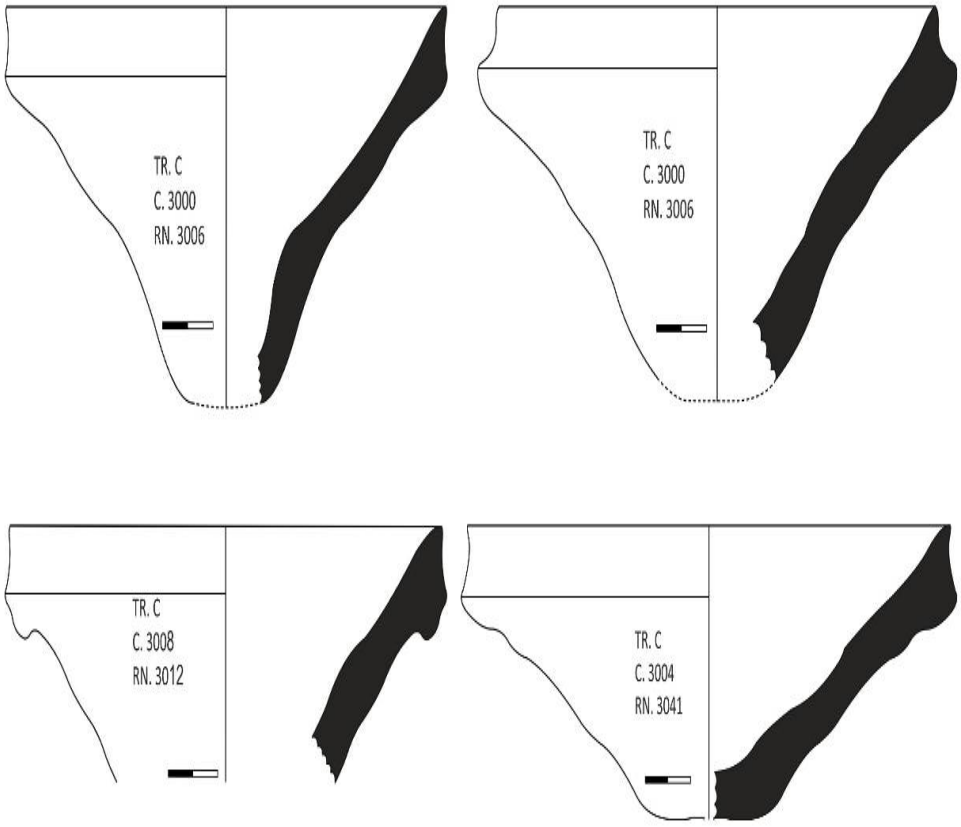

Figure 13: samples of Beveled rim bowls from Kale Kub, 2019

Painted buff ware

These types have also been identified along with other types of pottery of the fourth millennium BCE from period II of Kale Kub. The pottery is wheel-made, delicate, with a thin slip of buff clay, an orange-green buff core, and sufficiently fired, decorated with black or brown geometric patterns on the outside surface of the vessels. The painted designs are generally relatively wide parallel or diagonal lines, and the predominant form is a bowl with simple open-edged rims; However, cup-shaped forms and relatively high-walled bowls are also seen (Fig. 10, Nos. 25 and 26).

Painted red ware

This type comprises only a small percentage of the pottery assemblage and belongs in the stratigraphic sequence of the site to the Kale Kub I period, proposed to date to the fifth millennium BCE. These ceramics are delicate, handmade, are sufficiently fired, and have a very soft mixture of sand, with a red coating, the core is generally gray, and these wares are decorated with simple or intricate geometric lines in black. The predominant form of such simple bowls is an open mouth with a simple rim (Figure 10: Nos. 27 to 35).

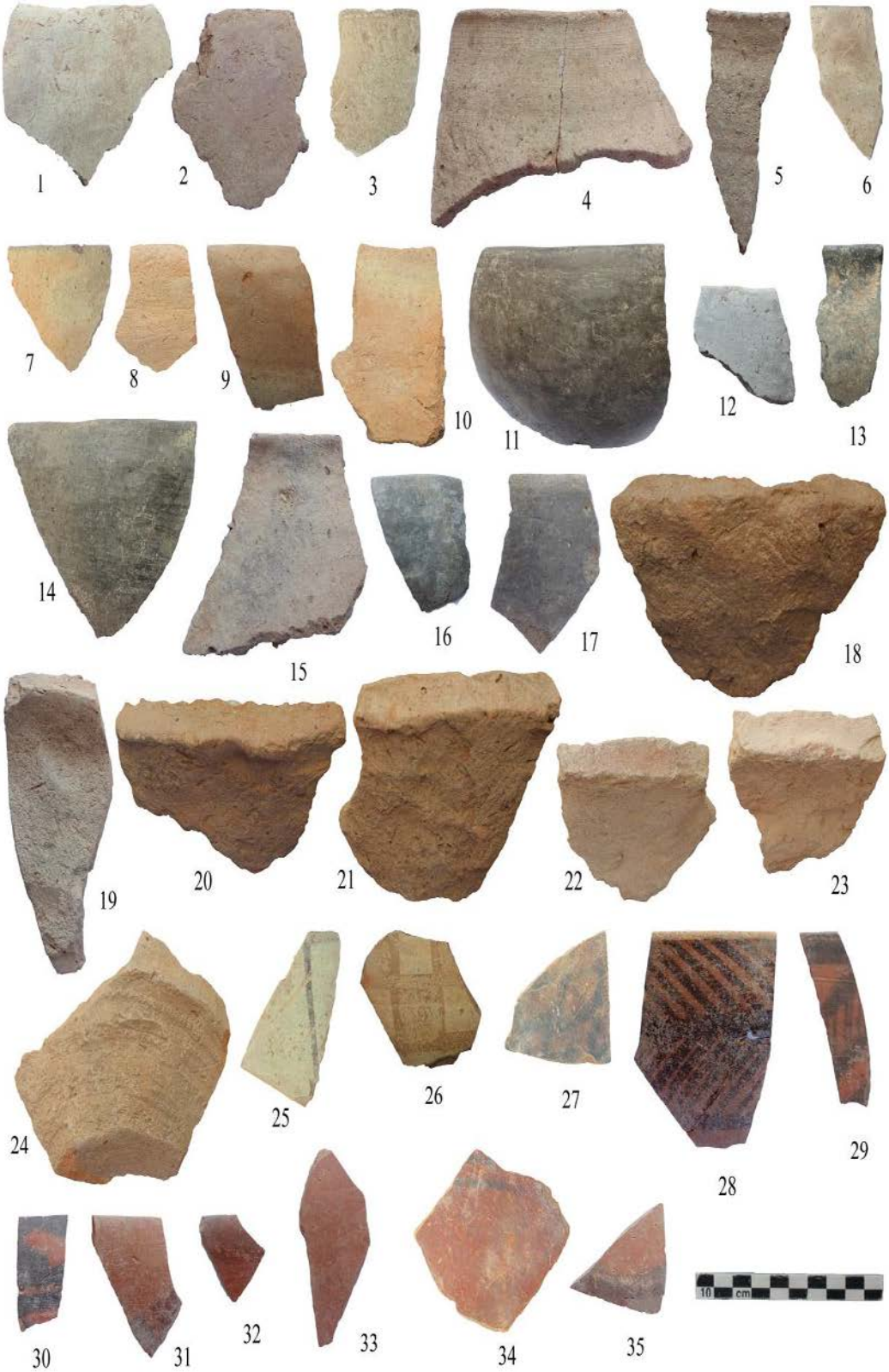

Figure 14: Kale Kub ceramic wares, 2019

Chart 1: information of Figure 14 pottery types

No.	Description
1	Tr. E, context 5001, rim (diameter: 40 cm, height: 60, thickness: 10 millimeters), handmade, outside, core and inside colors are buff, vegetive temper, enough heat, thin clay covered.
2	Tr. C, context 3001, rim (diameter: 30 cm, height: 77, thickness: 14 millimeters), handmade, outside and inside colors are reddish and the core color is gray, vegetive temper, less heat, thin clay covered.
3	Tr. C, context 3008, rim (diameter: 18 cm, height: 58, thickness: 3 millimeters), wheel-made, outside, core, and inside colors are buff, mineral temper, enough heat, thin clay covered.
4	Tr. E, context 5001, rim (diameter: 18 cm, height: 70, thickness: 16 millimeters), handmade, outside, core and inside colors are reddish, vegetive/mineral temper, enough heat.
5	Tr. E, context 5001, rim (diameter: 10 cm, height: 100, thickness: 15 millimeters), handmade, outside, core and inside colors are buff, mineral temper, less heat.
6	Tr. C, context 3008, rim (diameter: 18 cm, height: 57, thickness: 5 millimeters), wheel-made, outside, core, and inside colors are buff, vegetive temper, enough heat, thin clay covered.
7	Tr. C, context 3008, rim (diameter: 14 cm, height: 50, thickness: 8 millimeters), handmade, outside, core and inside colors are buff, mineral temper, enough heat, thin clay covered.
8	Tr. C, context 3008, rim (height: 50, thickness: 6 millimeters), handmade, outside, core and inside colors are buff, vegetive/ mineral temper, enough heat, thin clay covered.
9	Tr. F, context 6001, rim (diameter: 26 cm, height: 55, thickness: 14 millimeters), wheel-made, outside, core, and inside colors are reddish, mineral temper, enough heat, thin clay covered.
10	Tr. C, context 3008, rim (height: 65, thickness: 6 millimeters), handmade, outside, core and inside colors are buff, vegetive/ mineral temper, less heat.
11	Tr. F, context 6001, rim (diameter: 14 cm, height: 70, thickness: 8 millimeters), hand-made, outside, core, and inside colors are gray, mineral temper, enough heat, thin clay covered.
12	Tr. D, context 4001, rim (diameter: 10 cm, height: 30, thickness: 4 millimeters), hand-made, outside, core, and inside colors are reddish, mineral temper, enough heat, thin clay covered.
13	Tr. F, context 6001, rim (diameter: 14 cm, height: 38, thickness: 8 millimeters), hand-made, outside, core, and inside colors are gray, mineral temper, enough heat, thin clay covered.
14	Tr. F, context 6001, rim (diameter: 32 cm, height: 95, thickness: 11 millimeters), hand-made, outside, core, and inside colors are gray, mineral temper, enough heat, thin clay covered.
15	Tr. C, context 3001, rim (diameter: 22 cm, height: 74, thickness: 8 millimeters), hand-made, outside, core, and inside colors are reddish, mineral temper, enough heat.
16	Tr. D, context 4000, body (length: 54, width: 38, thickness: 7 millimeters), hand-made, outside color buff, core and inside colors are reddish, mineral temper, enough heat, thin clay covered.
17	Tr. E, context 5001, rim (diameter: 16 cm, height: 72, thickness: 6 millimeters), hand-made, outside, core, and inside colors are gray, mineral temper, enough heat.
18	Tr. C, context 3000, rim (diameter: 20 cm, height: 52, thickness: 15 millimeters), hand-made, outside, core, and inside colors are reddish, mineral temper, enough heat.
19	Tr. E, context 5001, rim (diameter: 19 cm, height: 85, thickness: 13 millimeters), hand-made, outside color is buff, core and inside colors are gray, vegetive/ mineral temper, enough heat.
20	Tr. C, context 3000, rim (diameter: 18 cm, height: 70, thickness: 17 millimeters), hand-made, outside, core and inside colors are reddish, mineral temper, enough heat, outside design by geometric motifs, thick clay covered.
21	Tr. F, context 5000, rim (diameter: 18 cm, height: 60, thickness: 14 millimeters), hand-made, outside, core, and inside colors are reddish, vegetive/ mineral temper, enough heat.
22	Tr. C, context 3000, rim (diameter: 20 cm, height: 84, thickness: 20 millimeters), hand-made, outside, core, and inside colors are reddish, vegetive/ mineral temper, enough heat.
23	Tr. C, context 3000, rim (height: 98, thickness: 12 millimeters), hand-made, outside, core, and inside colors are reddish, vegetive/ mineral temper, enough heat.
24	Tr. C, context 3004, base (diameter: 7 cm, height: 59, thickness: 12 millimeters), wheel-made, outside, core, and inside colors are reddish, vegetive/ mineral temper, enough heat, thin clay covered.
25	Tr. C, context 3006, base (height: 55, thickness: 4 millimeters), wheel-made, outside, core, and inside colors are buff, vegetive/ mineral temper, enough heat, outside design by geometric motifs.
26	Tr. C, context 3019, body (length: 54, width: 44, thickness: 5 millimeters), wheel-made, outside core and inside colors are reddish, mineral temper, enough heat, thin clay covered, outside design by geometric motifs.
27	Tr. C, context 3000, body (length: 65, width: 50, thickness: 6 millimeters), wheel-made, outside core and inside colors are reddish, mineral temper, enough heat, thick clay covered, outside design by geometric motifs.
28	Tr. E, context 5001, rim (diameter: 22 cm, height: 85, thickness: 4 millimeters), wheel-made, outside, core, and inside colors are reddish, vegetive/ mineral temper, enough heat, outside design by geometric motifs.
29	Tr. E, context 5001, rim (diameter: 18 cm, height: 45, thickness: 4 millimeters), hand-made, outside, core, and inside colors are reddish, mineral temper, enough heat.
30	Tr. E, context 5001, body (length: 33, width: 20, thickness: 3 millimeters), hand-made, outside core and inside colors are reddish, mineral temper, enough heat, thick clay covered, outside design by geometric motifs.
31	Tr. E, context 5001, rim (diameter: 12 cm, height: 36, thickness: 4 millimeters), hand-made, outside, core and inside colors are reddish, mineral temper, enough heat, outside design by geometric motifs.
32	Tr. E, context 5001, rim (height: 23, thickness: 4 millimeters), hand-made, outside, core and inside colors are reddish, mineral temper, enough heat, outside design by geometric motifs.
33	Tr. E, context 5001, body (length: 56, width: 28, thickness: 3 millimeters), hand-made, outside core and inside colors are reddish, mineral temper, enough heat, thin clay covered.
34	Tr. C, context 3004, body (length: 79, width: 63, thickness: 6 millimeters), hand-made, outside core and inside colors are reddish, mineral temper, enough heat, thick clay covered.
35	Tr. E, context 5001, body (length: 42, width: 32, thickness: 6 millimeters), hand-made, outside core and inside colors are reddish, vegetive temper, less heat, thin clay covered.

Conclusion

The second season of archaeological excavations at the site of Kale Kub Ayask began in May 2019 with the general aim of identifying the architectural structures of this site dating to the fifth and fourth millennia BC. Unfortunately, this site has been severely leveled by the landowner to create arable land for many years, and the cultural materials and surface layers have therefore been badly disturbed, in such a way that there is no cultural and material evidence on the surface to guide the selection of the location for trenches. For this reason, after the first season of this campaign in 2018 and the completion of stratigraphy for extensive excavations, two stages of geophysical study were conducted by Dr. Kourosh Mohammadkhani, a respected faculty member of the Department of Archeology at Shahid Beheshti University, and with support and funding The General Directorate of Cultural Heritage, Handicrafts and Tourism of South Khorasan Province. Dr. Mohammadkhani's work at this site targeted various places where there was presumably a higher likelihood of recovering in situ deposits. As a result, Trenches C, D, and F were selected for excavation.

Kale Kub site is one of the few prehistoric sites in South Khorasan province that has an intact stratigraphic sequence; given the depth and extent of intact deposits at this site, its partial destruction notwithstanding, it is possible to excavate this site for a long time. One of the most significant cultural finds of this site is the existence of different types of pottery from the Susa II period (also known as the Late Uruk period), which until now had not been reported in eastern Iran. Finding material evidence of this culture in this area is very important from an archeological point of view and shows the wide range of cultures dating to the beginning of urbanization and the Proto-Elamite culture in eastern Iran, which was not conceivable to such an extent before the Kale Kub excavation. Given the importance of the findings of Kale Kub, especially the representative layer of the fourth millennium BCE at this site, and due to the extensive destruction and impossibility of choosing the location to open new trenches, geophysical studies seemed the only logical solution and therefore according to the findings in this study, Trench C (5m×5m) was selected. Geophysics suggested the possibility of a large heated structure (kiln) at this locus and the excavation confirmed this inference. Considering that the depth of this kiln is lower than the architectural evidence of Trench E, and incorporating the stratigraphic evidence of the previous season, this kiln probably belongs to the fifth millennium BCE, but any definite statement is subject to the absolute date of this kiln.

Excavations in Trenches D and F (each measuring 2m×2m) in the eastern part of the site, where geophysical maps suggested the existence of tombs, led to the identification of two burnt floor contexts, which are probably related to the Bronze and Iron Ages. Excavations in the trenches have shown that the eastern part of the site was settled later historically than the western part and it is possible to identify more evidence of the Bronze and Iron Ages by expanding excavations in this area.

Trench E is located between Trench B and Trench C near the illegal excavation pit. Because of the recognition of mud-brick architectural remains in this area, the trench was expanded in three stages and its final size reached 3m×4m. Two architectural phases were identified in this trench, but unfortunately,

the cultural materials related to these architectural spaces are very few and insignificant. Considering the architectural form and also the similarity of the depth of this architecture with the depth of the layers containing the deposited Beveled rim bowls of Trench B, however, it can probably be attributed to the proto Elamite/Susa II horizon. To prove this claim, extensive excavations are needed in this trench to identify the entire architectural plan.

In general, it can be stated that the second season of excavations at Kale Kub provided the conditions for the third season of the excavation in this site. Now, according to the architectural evidence identified in Trenches C and E, with more extensive excavations in these two loci, complete plans of the structure and architectural features of the fifth and fourth millennium BCE can be identified. Considering the lack of knowledge of these periods in eastern Iran, these data can be used to provide a chronology and material basis for comparison with other areas of Iran. It is expected that with the continuation of excavations in this site, it will be possible to better identify the prehistoric cultures of eastern Iran and how this area's inhabitants related to their neighbors both inside and outside the region.

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پروژه باستان‌شناسی پیش‌ازتاریخ شرق ایران؛ کاوش محوطه پیش از تاریخی کله کوب آیسک، استان خراسان جنوبی (دومین فصل، ۱۳۹۸)

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چکیده

با گذشت بیش از صد سال از شروع کاوش‌ها و مطالعات باستان‌شناسی در ایران، به دلایل مختلف مناطق شرقی کمتر یا اصلاً مورد توجه باستان شناسان قرار نگرفته و انتشارات بسیار محدودی از فعالیت‌های باستان‌شناسی در این بخش از ایران وجود دارد. محوطه باستانی کله‌کوب آیسک، یکی از محدود محوطه‌های پیش‌ازتاریخی استان خراسان جنوبی و در کل شرق ایران است که دارای نهشته‌های فرهنگی کافی به منظور ارائه گاهنگاری و شناخت توالی فرهنگی؛ فرهنگ‌های پیش‌ازتاریخ این منطقه است. کاوش‌های صورت گرفته در این محوطه منجر به شناسایی فرهنگ‌های پیش‌ازتاریخی ناشناخته‌ای در منطقه شد. شاخص‌ترین دستاورد کاوش در این محوطه شناسایی فرهنگ‌های هزاره چهارم پیش از میلاد با خاستگاه جنوب غربی و بین‌النهرینی است که شواهد آن بسیار دور از مرکز در این محوطه به دست می‌آیند. این شواهد فرهنگی که می‌توان آن‌ها را هم افق با فرهنگ شوش II یا اوروک جدید دانست، شامل انواع سفال‌های شاخص این دوره از قبیل سفال‌های لبه واریخته، سینی‌های خشن نوع بانشی، ظروف لوله‌دار و خمره‌های دسته دماغی، سفال‌های منقوش و سفال‌های چرخ‌ساز ظریفی هستند که در نواحی جنوب غربی، غربی، شمال غربی، جنوب شرق و فلات مرکزی ایران شناخته شده هستند ولی در شرق ایران برای نخستین بار شناسایی و معرفی می‌گردند. در فصل دوم کاوش محوطه کله کوب بر اساس بررسی‌های ژئوفیزیک انجام شده، محل های جدیدی برا کاوش انتخاب شد و انجام کاوش در ترانشه های با ابعاد بیشتر منجر به شناسایی بخشی از معماری پیش از تاریخ محوطه شد.

واژه‌های کلیدی: کله‌کوب، معماری، ارتباط تجاری، تامین مواد اولیه، افق فرهنگی شوش II

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