Stratified Sequence and Relative Chronology at Toll-e Gap Kenareh, Marvdasht plain, Iran

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The site of Toll-e Gap Kenareh is located 5 Km southwest of Persepolis, 3 Km northeast of Marvdasht city in the Kur River Basin. The first season of excavation at Toll-e Gap was conducted in Sept/Oct 2012 to identify the cultural stratified sequence of the site and to get relative and absolute dating for the 3rd millennium BC. Fars. Two trenches (A and B) were excavated during this season of excavation on the east and west sides of the site and reached the virgin soil at 5.3 m depth. According to the recovered potsherds and comparing them to the other sites of the Kur River Basin, it can be inferred that the chronological sequence found in Toll-e Gap Kenareh displays early Islamic, Sasanian, early Kaftari, transitional Banesh / Kaftari and Banesh (early, middle, and late?) periods. Toll-e Gap Kenareh opens new horizons in the archaeology of Fars during the 3rd millennium BC., above all for the transition between the well-known Banesh and Kaftari periods.

Keywords: *Fars, Marvdasht plain, 3rd millennium, Banesh, Kaftari, Sasanian period, early Islamic period.*

Introduction

After years of excavations and surveys in Kur River Basin and in Fars province, there are still major problems and unanswered questions in the local chronological sequence. Archaeological excavations and surveys showed that the number of settlements was greatly reduced after the Tall-i Malyan urban phase (Middle Banesh phase, late 4th and early 3rd millennia BC.) whereas few evidences illustrate the subsequent Late Banesh phase (Sumner 2003: 53). There are discontinuities in the chronological sequences of most of the sites excavated up to now between middle Banesh and Kaftari epochs. Considering archaeological surveys, soundings and C^{14} dating, it seems that the Kur River Basin consequently faced a remarkable population reduction in the middle of the 3rd millennium BC. (Sumner 1988:315–317; 1989: 135–36; 1990: 106; 2003: 53–55; Miller and Sumner 2004: 77, 87–88).

Sumner proposed to consider the mid-3rd millennium BC. as a gap between late Banesh (2800-2600 B.C) and early Kaftari (2200-1900 B.C) phases, suggesting that during this interval, most of the inhabitants of the Kur River Basin turned to pastoralism, explaining the sparse occupation of this territory (Sumner 2003: 13-117; 1988: 315-316). This view relied on evidences from ABC trench cultural layers in Tall-i Malyan, on C^{14} absolute dating, on the discontinuity between Banesh and Kaftari surveyed settlements and on an obvious recess in the pottery sequence in the Kur River Basin (Sumner 1988: 315-316; 2003: 54-55). Recently published evidence from trench H5 and new excavation in H1s sounding in Tall-i Malyan, however slightly modified this scenario and pointed on a certain continuity between Banesh and Kaftari periods in Tall-i Malyan (Miller and Sumner 2004: 87-88; Alden *et al.* 2005).

Archaeological Excavation at Toll-e Gap Kenareh

The site is located 5 Km southwestward of Persepolis and 3 Km northeastward of Marvdasht in the Kur River Basin (Figs. 1, 2). Covering around 0.5

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hectare, it is situated 1629 m above the sea level and is 4 m higher than the current surrounding plain (Fig. 3). Toll-e Gap was firstly excavated by L. Vanden Berghe in the 1950s for two days (Sami 1951: 67) while Alizadeh presented the site as belonging to Shogha, Iron Age III, Achaemenid, Sasanian, and Islamic periods (ie. Middle 2nd millennium BC. to 1st millennium AD; Alizadeh 2003:97).

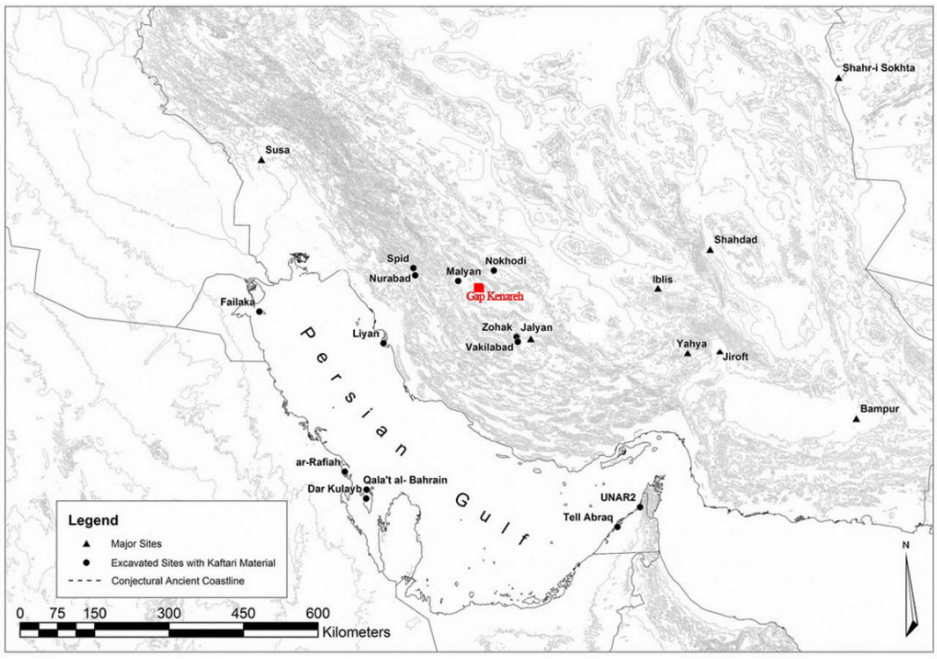


Fig. 1: *Map of southern Iran (After: Petrie et al. 2005 fig. 1)*

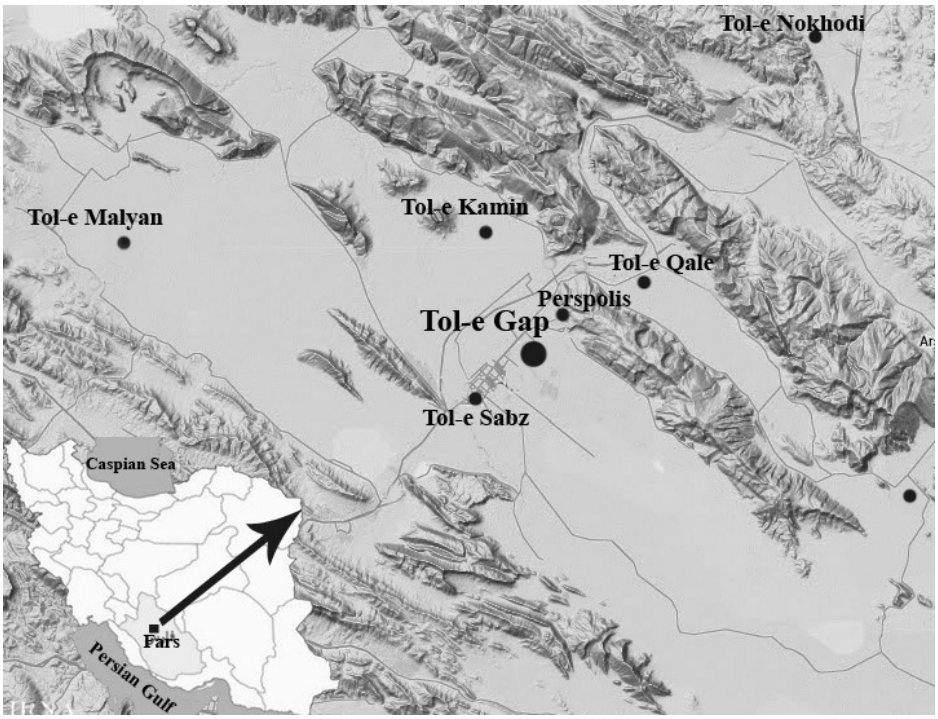


Fig. 2: *Location of Toll-e Gap Kenareh*



Fig. 3: *Toll-e Gap Kenareh, seen from the West.*

Fars Cultural heritage organization excavated Toll-e Gap in 2012 to identify the cultural sequence of the site and get absolute and relative chronological information concerning the 3rd millennium B.C in Fars (Khanipour 2013). Two trenches were opened, A (2×4 m) and B (2×2.5 m) (Figs. 4, 5 & 6), and excavated to 5.3 m depth. Banesh (late 4th and early 3rd millennium BC.), Banesh / Kaftari transition (mid 3rd millennium BC.), Kaftari (late 3rd millennium BC.), Sasanian and early Islamic periods material were found in the dig (Khanipour *et al*. 2015: 43).

Excavation and Documentation Methods

During the excavations, Harris table was used to indicate recovered contexts orders. Each architectural structure or soil layer with different texture, color, density or cultural data was regarded as a distinct unit and was considered as a specific context. Also each phase is distinguished based on the pottery changes. Excavators gave registry number to each artefact found in context to document material culture thoroughly according to different contexts and dates. The numbers differ in various trenches.

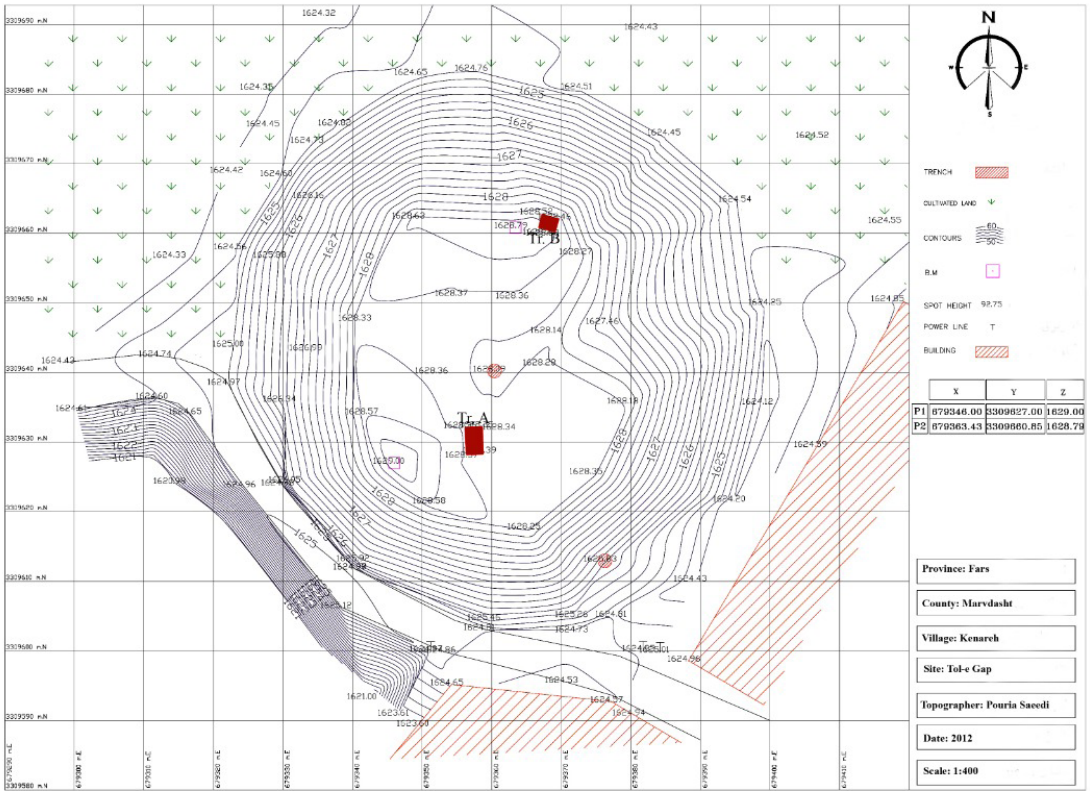


Fig. 4: *Topography Toll-e Gap*

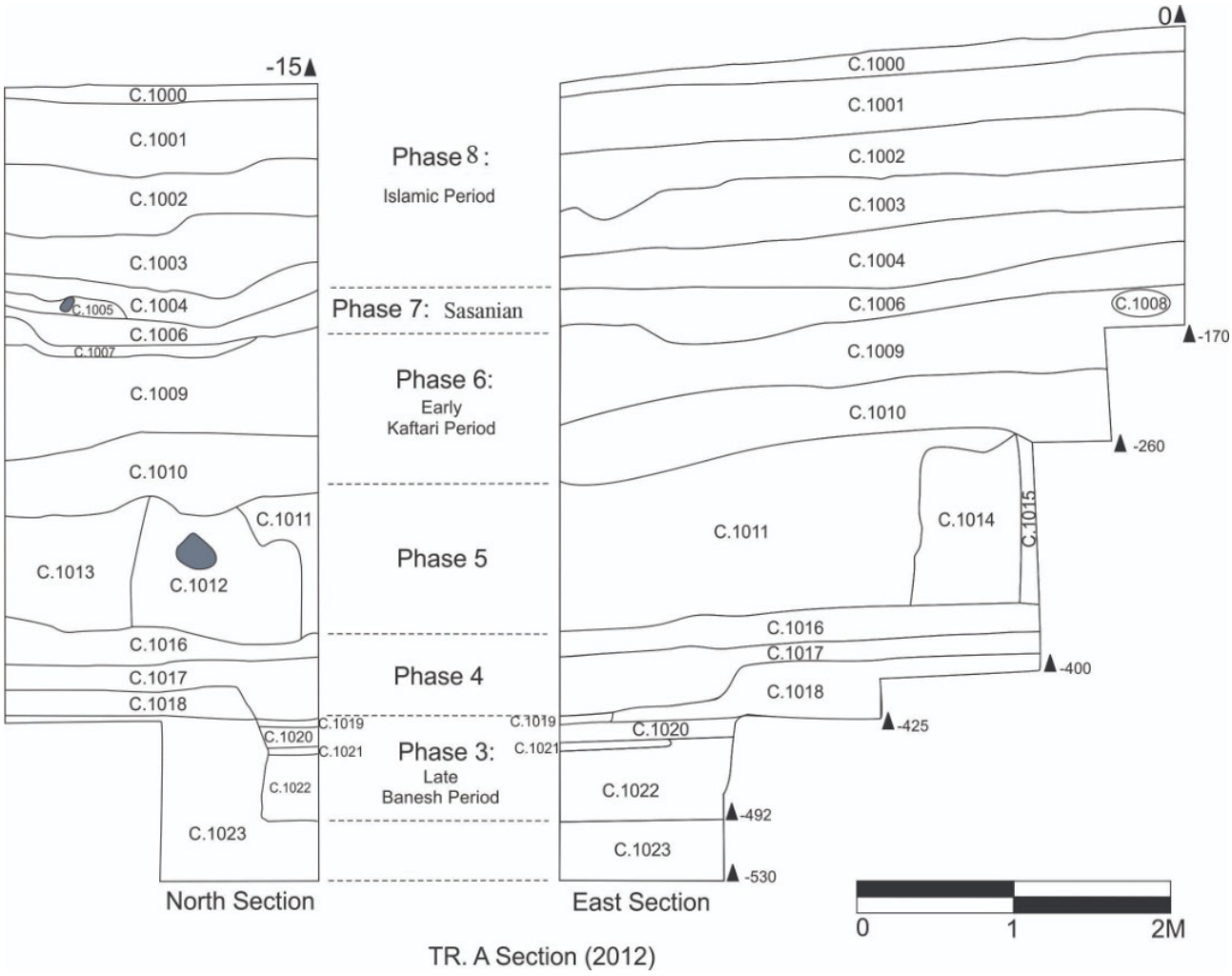


Fig. 5: *Toll-e Gap Kenareh Trench A stratigraphic sections.*

Analyzing settling strata at Toll-e Gap

Harris table was used to indicate chronological order. In trench A, 24 contexts were identified (starting from number 1000 for the most recent one) while 15 contexts were observed in trench B (starting from the number 2000). Virgin soil was reached in both trenches. Regarding the recovered pottery and the architectural remains, these contexts were categorized in 8 phases:

Phase 1 (Early Banesh)

The earliest excavated layers, identified on the virgin soil in Trench B, correspond to the Phase 1 (Fig. 6). Because of the limited excavated area, no evidence of architecture was recovered. Ceramics discovered there included red, buff and grey with fine sand tempered ware, either painted or plain. The decorations were characterized by flame-like designs and horizontal strips, roughly drawn in some cases; a sherd was also bichrome, with brown and grey colors. As presented in table 1, the potteries of this phase might be compared with Early Banesh phase samples in Kur River Basin (Figs. 10, 11, No.1-7). Three red Lapui potsherds were also found in this phase.

Phase 2 (Middle Banesh)

Only identified in Trench B, this phase corresponds to a 1m thick layer of soil piles with

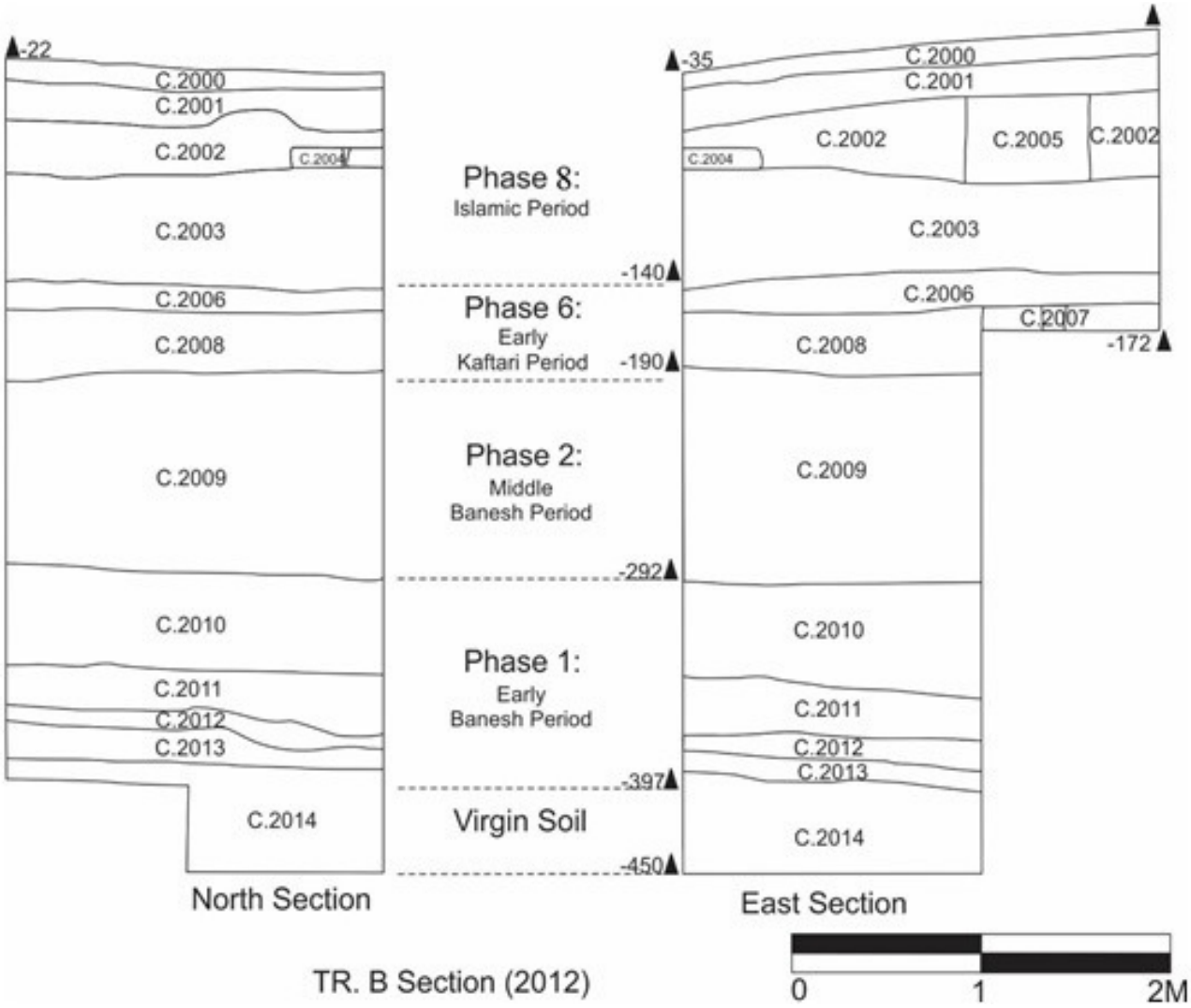


Fig. 6: *Toll-e Gap Kenareh Trench B stratigraphic sections.*

ashes lenses (Fig. 6). Because of the limited surface excavated, no architectural remain was found. The ceramic assemblage includes mostly rough and plain buff and red wares with vegetal temper and deficient firing. Some of them are very characteristic of the Middle Banesh phase, such as the oval trays, the beveled rim bowls, the pedestal based goblets and many other forms (Figs. 10, 11, No. 9-12) and may be compared to the other sites (as presented in table 1).

Phase 3 (Late Banesh?)

Identified in the northeastern corner of Trench A, the inhabitants of this phase probably dug earlier deposits 65cm below the virgin soil. This phase was 0.7 m thick (contexts 1022, 1021, 1020 and 1019). Because of the limited excavated surface, no architectural remain was discovered (Fig. 5) except the remains of an oven. The ceramic material was characterized by fine and coarse-grained tempered pastes, usually with slips and polychrome designs (Figs. 10, 11, No. 8,13-15), with good equivalences with the late Banesh? phase assemblage.

Phase 4 (Mid-3rd Millennium B.C)

No architectural remain was observed in this 0,73m width strata recognized in Trench A (contexts 1016, 1017, 1018). As it belongs to the transition

phase between Banesh and Kaftari periods, here is a full description of the contexts :
Context 1018: in this 20 cm width layer, 53 sherds were found out. About their firing, for 88% it was sufficient, for 12% deficient ; about the temper used, 82% displayed sand , 9% Vegetal and 9% a combination of them ; concerning the quality of the clay used, 41% were fine-grained, 50% medium-grained and 9% coarse-grained. Among the characteristic sherds are a piece of beveled rim bowl, several pieces of polychrome ware, buff and red wares with coarse-grained temper and 6 pieces of Kaftari red slipped ware.

Context 1017: in this 32cm width dense texture context, 87 sherds were dug out. 44% of the sherds displayed sufficient firing (56% with insufficient firing) ; 79% had mineral temper, 3% organic and 18% a combination of both of them ; 18% were fine-grained, 35% medium-grained and 47% coarse-grained. Among the characteristic trays are a piece of Banesh oval tray, some Banesh coarse-grained potteries and 11 Kaftari sherds.

Context 1016: is a 21 cm width dense layer where 85 sherds were found. 78% of them were sufficiently fired (22% insufficiently), 86% included mineral temper and 14% a combination of organic and mineral ; quality: 31% fine-grained, 51% medium-grained, and 17% coarse-grained.
From the recovered potsherds, it might be inferred that Phase 4 correspond to a transition phase between Banesh and Kaftari wares, hypothetically in the middle of the 3rd millennium BC. (Figs. 10, 11).

Phase 5 (Mid-3rd millennium B.C)

Observed in trench A, a chineh wall was discovered in this 1,2 m thick layer. Here are the recovered contexts and their corresponding relevant ceramic assemblages (Fig. 7).
Context 1015: this soft texture layer filled the space between the walls 1012 and 1014. 6 sherds were found here, one of them might be attributed to Banesh period while two pieces can be described as dense red slipped Kaftari ware.
Context 1014: it is a wall made of chineh with vegetal temper, pebbles and fragments of potteries and bones. It was 65 cm thick and 102 cm height remained. This wall is linked to the wall 1012.
Context 1013: is a 81 cm thick texturally soft layer, filling the space west of the wall 1012. Inside, 14 sherds were found, including 57% ones sufficiently fired (43% insufficiently ones) ; 100% were characterized by a vegetal / mineral combined temper, 86% were medium-grained and 14% coarse grained. Two Banesh sherds, 3 dense red Kaftari sherds and a sherd similar to the assemblage discovered in the Tepe Jalyan (Miroschedji 1974: pl. 8, N.3) graveyard were found.
Context 1012: is a wall made of mud bricks with vegetal temper, pebbles, bones and pottery fragments. The wall is 80 cm thick and remains on 93 cm height.
Context 1011: is a 107 cm thick soft layer filling the space between the walls 1012 and 1014. The ceramic assemblage includes red to buff and grey wares, comparable to Banesh and Kaftari materials. A Banesh oval tray fragment, several fine-grained Banesh sherds, grey red and black slipped Kaftari red wares and a fragment similar to material found in Tepe Jalyan (Miroschedji 1974) were found.
Considering the presence of Banesh and Kaftari wares as well as sherds similar to the Tepe Jalyan assemblage (Figs. 12, 13), this period might also be hypothetically attributed to the mid-3rd millennium BC.

Phase 6 (early Kaftari)

Phase 6 was found in both trenches A and B. In trench A, three contexts, 90 cm thick in total, without any architectural remain, were discovered: two fill layers (contexts 1009 and 1010) and one layer of ash (context 1007) (Fig. 5). A disruptive Islamic burial was also dug to this level. In trench B, under the Islamic strata, three 60 cm thick contexts were found (Fig. 6) : a floor (context 2007) made of a row of vegetal tempered mud bricks (42 x 40 cm) with mud mortar. Half size bricks were used in the floor northeastern margin (Fig. 8). A 30 cm thick filling layer was found northward of the floor (contexts 2006 and 2008). The recovered potteries include plain or painted red, buff and grey wares. Red wares, grey or black slipped might be attributed to the Early Kaftari phase (Figs. 14, 15).

Phase 7 (Sasanian Period)

In a trench A, beneath the layers of the Islamic period and on top of the Kaftari period layers (Fig. 5), was a 25 cm thick layer with Sasanian pottery without any architecture. During the Sasanian period, the site was probably temporarily and seasonally occupied. The ceramics of that phase included buff, red and grey wares, with incised, appliqué, impressed and burnished decorations (Figs. 17, 18), which may be related (as presented in table 4) to Sasanian period potteries.

Phase 8 (Early Islamic Period)

In both trenches, the upper 1,6 m were characterized by Islamic period wares. No architectural remain was found in trench A while a 50 cm thick mud wall, preserved on 65 cm height, was found in trench B. The ceramics of that phase included buff, red and grey wares, with incised, black geometrical designs, as well as Istakhr molded wares, monochrome glazed wares, painted under glaze wares and splashed paintings on glaze ware (Figs. 17, 18). This ceramic assemblage may be compared to early Islamic period potteries.

Banesh Period

During Sumner's excavations in Kur River basin, a new ceramic assemblage was discovered, not recognized as a chronological phase before. These red and buff ceramics were initially named "Banesh Ceramic" after the small surface collection which was discovered on that site (Sumner 1972: 4-40; see also Vanden Berghe 1952; 1954). Alden divided Banesh Period into five sub-phases on the basis of the ceramics discovered during his excavations and explorations in Tall-i Malyan and Tal-e Kureh: Initial Banesh, Early Banesh, Early Middle Banesh, Late Middle Banesh, and Late Banesh (Alden 1979: 49). Sumner summarized this period in three phases: Early Banesh, Middle Banesh, and Late Banesh (Sumner 1986: 199; 1988: 317; 2003: 53); and

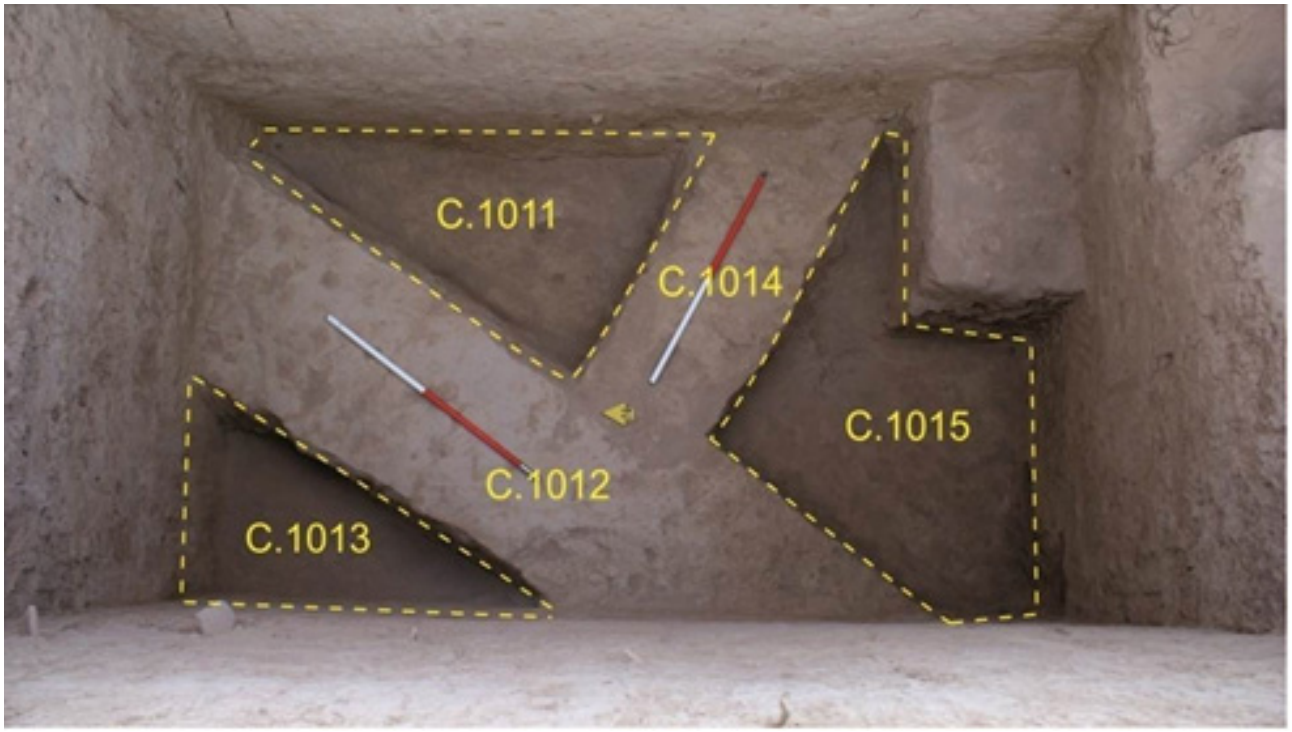


Fig. 7: *Architecture from Trench A Phase 5.*



Fig. 8: *Trench B, Phase 6, view of the mud bricks floor.*

recently Alden divided it into four phases: Lapui-Banesh Transition, Early Banesh, Middle Banesh, and Late Banesh (Alden 2013: 214-219).

During excavations in Toll-e Gap Kenareh deposits containing Banesh ceramics were discovered in trenches A and B. Having compared the ceramic deposits with ceramics discovered in other sites, one may divide them into three phases: Early Banesh, Middle Banesh, and Late Banesh, as shown in Table-1. The lowest layers of Trench B, about 105 cm thick, contain sand-tempered plain or painted ceramics similar to Banesh-type ceramics discovered in the Kur River basin. This layer is introduced as Phase-1 (Early Banesh). Phase-2 (Middle Banesh) was discovered in Trench-B. It consists in a 100 cm thick deposits in which most of the discovered ceramics were mineral and vegetal tempered, plain or painted. Phase-3 (Late Banesh?) was discovered in the northeast corner of Trench-A. Inhabitants of this phase, due to unknown reasons, had excavated 65 cm depth the virgin soil in this part of the Tepe and settled here. No significant architecture was noted, except the ruined remains of a stove. The discovered ceramics were sand tempered. Some of them were slipped and decorated with polychrome motifs.

Immediately deposited on the virgin soil, the layers were characterized by Banesh red to buff and grey wares, decorated with geometric designs, incisions or applications; they were vegetal or sand tempered which was apparently effective on their texture, form and design. Buff and red vegetal tempered wares are usually plain and insufficiently fired. Beveled rim bowls belong to this category as well as handmade circular, oval or semi-rectangular trays with plainly finger-impressed low rim or tall cups with heavy base (sometimes filled) and vertical rims or necked funnel. Generally, vegetal tempered wares are plain, because of their coarse texture, while their forms are limited. Considering the sand tempered Banesh wares, their temper is frequently fine (but medium to coarse ones might be also observed) and their mud slip thick. This ceramics category may be decorated with ranges of bands or other painted geometrical motifs (bichrome and polychrome painted decoration were quite rare), while incised and plastic decors were also used.

The Banesh ceramics from Toll-e Gap may be compared with Tall-i Malyan (Sumner 1985; 1988; Alden 2003; 1979; Alden *et al.* 2005; Abdi 2001: 88. fig. 2; Miler and Sumner 2004), Tall-e Kureh (Alden 2003; 1979), other identified Banesh sites in Kur River Basin (Sumner 1972, Alden 1979), Tall-e Nurabad and other Banesh sites in Nurabad area (Potts and Rustaei, 2006; MacCall 2009; Petrie 2011; 2013) (table 4). According to the absolute datings of Tall-e Kureh and Tall-i Malyan, they can be dated between 3400 B.C and 2600 B.C. Sumner divided Banesh period into three phases (Early, Middle and Late periods; Sumner 1986: 199; 1988: 317). Accordingly, lower strata in Trench B (Phase 1, contexts 2013-2010) might be attributed to Early Banesh, context 2009 in Trench B (Phase 2) to Middle Banesh, while the lowest strata in Trench A (Phase 3, contexts 1022-1019) probably belonged to Late Banesh? phase.

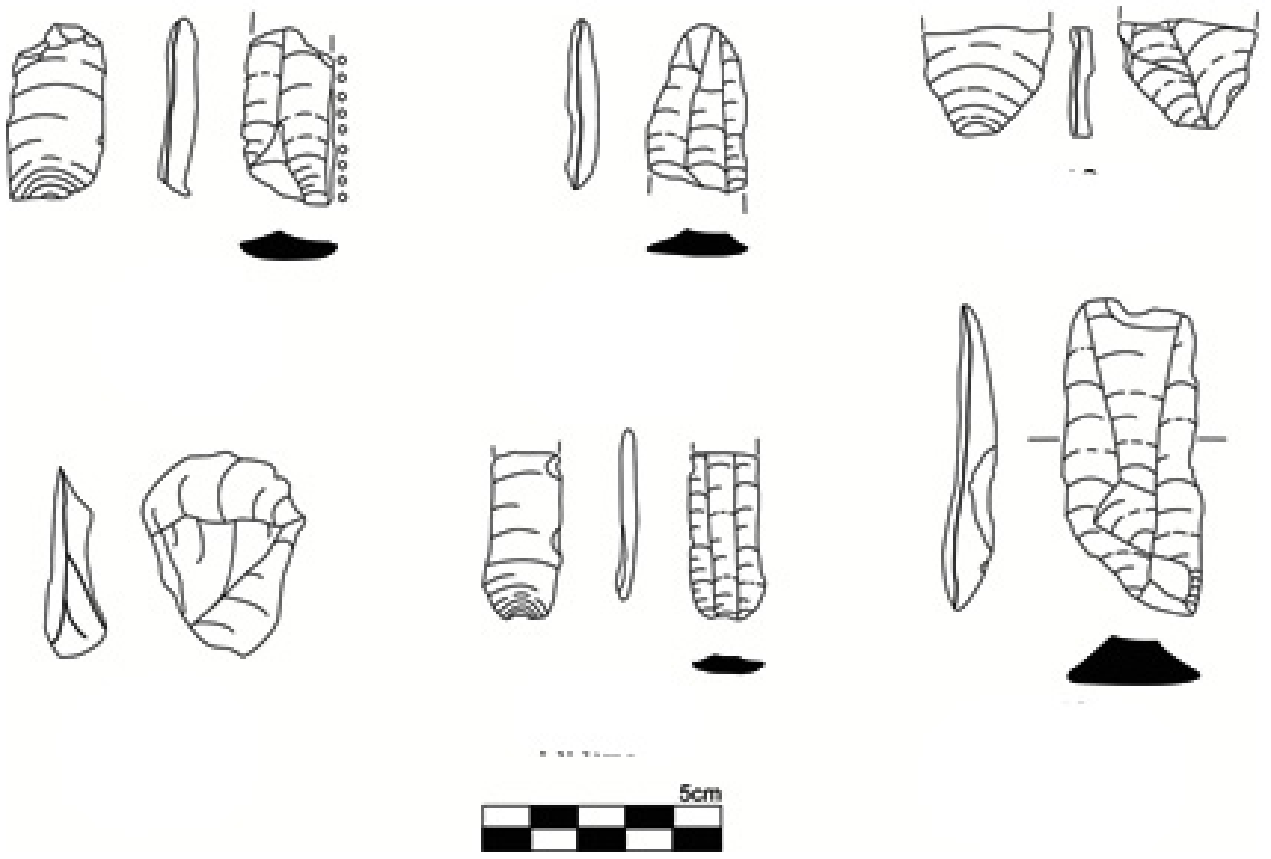


Fig. 9: *Lithic Tools*

On the basis of the explorations done in this area, no Banesh Ceramics have been discovered in Fasa and Darab regions (Mansuri and Asadi, 2012: 66; Kerner 1993: 195-196; Miroschedji 1973). Miroschedji have recorded a small number of rough ceramics with organic and mineral tempers, as well as other fine buff ceramics; yet, he has not been able to provide an understandable comparison between these artifacts and straw tempered Banesh ceramics which had been discovered in the Kur River basin at that time (Miroschedji 1973: 3). Until recently, no information was available about the south end of Banesh Period settlement area. During the archaeological explorations done in last few years in the north of Persian Gulf and some parts of Bushehr Province, rough ceramics with sand temper, which could be compared with Tall-i Malyan ceramics, were discovered only in one site. Actually, no beveled-rim bowl, legged cup, or Banesh trays were discovered. Therefore, chronology of the collection cannot be confirmed before excavating this site and discovering trustable evidences (Carter *et al*. 2006: 88-89). 5 stone blades and 1 flake were found (Fig. 9). Among the blades was a sickle element, because of its polished side. It was then retouched as a scraper. Considering the recycling use of the lithic tools, lithic raw material was perhaps not abundant (as no core was found, these tools were perhaps produced elsewhere and imported henceforth in Toll-e Gap).

Banesh – Kaftari Transition

The origin of the Kaftari period in the Kur River basin is still somehow enigmatic. Sumner, on the basis of evidences from trenches ABC at Tall-i Malyan and absolute carbon-14 dating results, believed that there was a settlement gap and an

Table 1: *Catalogue of the Banesh period ceramics of Toll-e Gap Kenareh*

Trench	Number	Context	Phase	Description:	Parallels:
B	1	2013	1	Rim, Hand, Well fired, Grit, Coarse, 10 YR 7/3 very pale brown, 10 YR 6/3 pale brown	Potts & Roustaei 2006: 333 fig: 3.105 no. 576
B	2	2013	1	Rim, Hand, Under fired, Grit, Fine, 5 YR 5/6 yellowish red, 5 YR 6/1 gray	Alden 1979: 262 fig: 39 Nicholas, 1980: 536 fig: 168
B	3	2012	1	Rim, Wheel, Well fired, Grit, Fine, 7.5 YR 6/4 light brown, 7.5 YR 6/4 light brown	Alden 1979: 259 fig: 36 no. 11-12- Alden 2003a: fig. D5.28,29; MacCall 2009: 332. fig: 7.1 no1911
B	4	2011	1	Rim, Hand, Under fired, Grit, Medium, 10 YR 6/3 pale brown, 10 YR 4/1 dark gray	Sumner 1972:Pl.XVI.M, N; XX.N, XXI.J; Alden 1979: fig. 53.1 Alden 2003a: D4.9, D5.22; D6.11; D7.25. Sumner 2003: fig. 25.s. Nicholas 1990: Pl.16.d
B	5	2010	1	Rim, Hand, Under fired, Grit, , Coarse2.5 YR 6/6 light red, 5 YR 6/1 gray	Miller & Sumner 2004: fig. 3. A
B	6	2010	1	Rim, Hand, Under fired, Grit, Medium, 10 YR 5/3 pale brown, 10 YR 4/1 dark gray	Alden 1979: 263 fig: 40 no. 17 Potts & Rostaei 2006: 329 fig: 3.103 no. 636 MacCall 2009: 339. fig: 7.3 no. MS43-1603 Alden 1979:fig. 39.7; 40.20
B	7	2010	1	Rim, Hand, Under fired, Grit, Fine, 2.5 YR 4/1 dark reddish gray, 2.5 YR 4/1 dark reddish gray	Miller and Sumner 2004:fig. 3.d; Sumner 1985:fig. 4.j Nicholas 1990:Pl.6.e, 17.e Sumner 1972: XII.R; Alden 2003a:D4.21; 1979: fig. 52.21,22 Potts & Roustai 2006: 331 fig: 3.104 no. 635
A	8	1019	3	Complete Profile, Hand, Under fired, Vegetal, Corse, 10 YR 7/4 very pale brown, 10 YR 5/1 gray	Alden 1979: 256 fig: 33 Nicholas, 1980: 533 fig: 167. No. b Abdi 2001: 88. fig. 22. No. 39 Potts & Roustai 2006: 614 fig: 4.125 no. 1639
B	9	2009	2	Rim, Hand, Under fired, Vegetal, Coarse, 7.5 YR 7/6 reddish yellow, 5 YR 6/1 gray	Alden 1979: 255 fig: 32. No. 13 Nicholas, 1980: 491fig: 154. No. n Potts & Roustai 2006: 621 fig: 4.132 no. 738
B	10	2009	2	Rim, Hand, Under fired, Vegetal, Medium, 5 YR 7/6 reddish yellow, 10 YR 5/1 gray	Nicholas, 1980: 491 fig: 154. No. c Potts & Roustai 2009: 333 fig: 3.105 no. 619
B	11	2009	2	Rim, Hand, Well fired, Vegetal, Medium, 10 YR 8/3 very pale brown, 10 YR 8/3 very pale brown	Nicholas, 1980: 491 fig: 154. No. c Potts & Roustai 2006: 614 fig: 4.125 no. 1601
B	12	2009	2	Rim, Hand, Under fired, Vegetal, Fine, 7.5 YR 7/4 pink, 7.5 YR 7/4 pink	Alden 1979: 264 fig: 41. No.1 Abdi 2001: 88. fig. 22. No. 18
A	13	1022		Body, Hand, Well fired, Grit, Medium, 2.5 Y 8/2 pale yellow, 7.5 YR 7/4 pink	-
A	14	1022		Rim, Hand, Well fired, Grit, Medium, 2.5 YR 5/4 redish brown, 2.5 YR 5/1 gray	-
A	15	1020		Rim, Hand, Well fired, Grit, Medium, 2.5 YR 5/8 red, 2.5 YR 5/1 gray	-

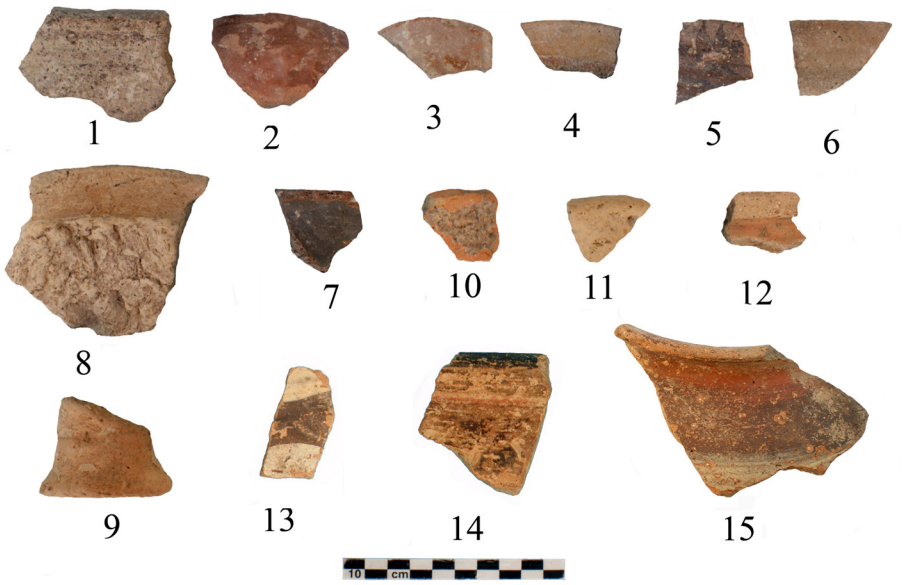


Fig. 10: *Phases 1, 2 and 3 (Banesh) Pottery*

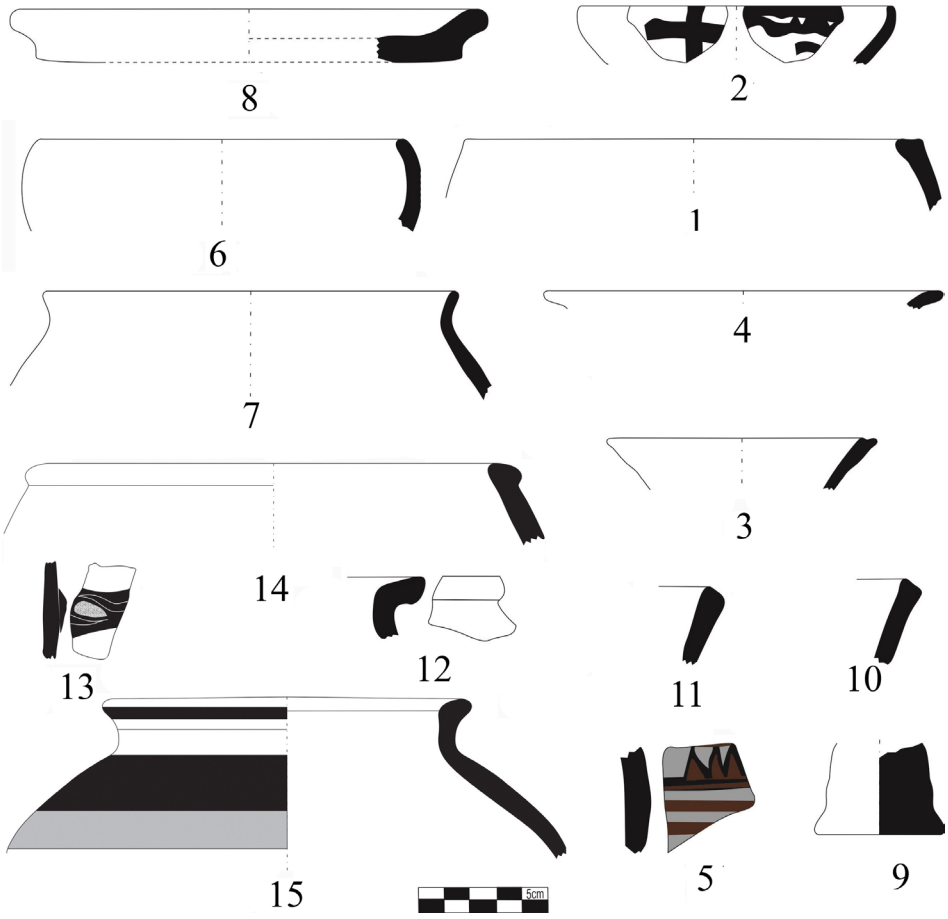


Fig. 11: *Phases 1, 2 and 3 (Banesh) Painted Pottery*

evident break in sequence of ceramics between Banesh and Kaftari periods in the Kur River basin (Sumner 1988a: 315-316; 2003: 54-55). Excavations in Tal-e Kureh can not help much in this regard as this site is only related to Initial Banesh Period. We do not have accurate stratigraphies or absolute dating results for Tal-e Zahak and Tal-e Lyan, and therefore it is not possible to date exactly the settlement attributed to Kaftari Period in these sites. Excavations in Tal-e Nokhodi are too old and only partially published. Considering the large number of ceramics with deep red clay finishes, it can be assumed that the settlement in this site may be dated back to the Early Kaftari Period. New explorations in this site might help know more about the Initial Kaftari Period. Finally, Tal-e Espid and Tal-e Nurabad were not occupied at that time, probably due to displacement of the settlements.

Recent data from Tall-i Malyan (Miller and Sumner 2004) and the present results from Toll-e Gap Kenareh indicate that Kaftari gradually evolved from the Banesh period, without clear break. Relying on surveys, Sumner considered that this period was characterized by a drastic reduction in the sedentary lifestyle corresponding to a growing nomadic pastoralism (Sumner 1988: 315–17; 1989: 135–36; 1990: 106; 2003: 53–55; Miller and Sumner 2004: 77, 87–88). But, through the recent results from Tall-i Malyan and Toll-e Gap Kenareh, such a conclusion might be questioned. Since the ceramics of the transition between Banesh and Kaftari periods are just similar to Banesh and Kaftari wares, only stratigraphic investigations may recognize this transition characterized by decreasing Banesh assemblage / increasing Kaftari one, contrary to surveys. It is of course necessary to excavate other sites and C^{14} date these transitional layers to confirm this hypothesis reconsidering the stated mid-3rd millennium BC. gap in Fars.

The Transitional period between Banesh and Kaftari can be observed in Toll-e Gap in phases 4 and 5. Above Late Banesh phase strata, at 4 m depth, in phase 4, Kaftari potteries are rare, before gradually increasing while Banesh ceramics will progressively decrease before disappearing completely in phase 6 (Early Kaftari). The Banesh ceramics included a low percent of vegetal temper while open and close bowls as well as jars were made with fine sand tempers. Similar red slipped Kaftari ware displayed rarely bicolor geometric designs (Khanipour 2013b).

Archaeological explorations in Toll-e Gap Kenareh have resulted in discovery of a lot of important artifacts. The succession of periods from Early Banesh to Kaftari may be observed in this site. Banesh – Kaftari transition can be evidently studied in settlement phases 4 and 5. In the lowest layers of Phase-4, Banesh ceramics can be found rarely besides Kaftari ceramics. The number of Kaftari ceramics increases in these two phases, while the number of Banesh ceramics decreases in a way that in Phase-5 number of Kaftari ceramic becomes dominant. According to the stratigraphy results there is no gap between these two periods.

This hypothesis can be confirmed on the basis of the new literature about Tal-e Malyan (Miller and Sumner 2004; Alden *et al* 2005) and explorations in Toll-e Gap Kenareh; because ceramics of this time span are completely similar to those of Banesh and Kaftari Periods. It can be said generally that Kaftari ceramics are the advanced form of the Late Banesh ceramics, and settlements of this period cannot be found based merely on surface explorations, without stratigraphy. In order to make sure about this issue, and to know this transition better, further excavation must be done in a number of sites with Late Banesh/ Early Kaftari sequence, to study more precisely the cultural, social, political, etc., circumstances of that period.

Kaftari Period

Louis Vanden Berghe first named the collection of ceramics he had discovered in early 1950s as Kaftari Ceramics (Vanden Bergeh 1945: 402-403). Before Vanden Bergeh's studies, Pezard had discovered this type of ceramics during his excavations in Tal-e peytol in Bushehr (Lyan) (Pezard 1914). Further studies of William Sumner

Table 2: *Catalogue of the Banesh-Kaftari transition period ceramics of Toll-e Gap Kenareh*

Trench	Number	Context	Phase	Description:	Parallels:
A	16	1017	1	Rim, Hand, Well fired, Grit, Medium, 7.5 YR 6/4 light brown, 5 YR 6/6 reddish yellow	-
A	17	1017	-	Body, Hand, Under fired, Grit, Fine, 2.5 YR 6/6 light red, 10 YR 4/1 dark gray	-
A	18	1016	-	Rim, Hand, Under fired, Mixed, Medium, 5 YR 4/3 reddish brown, 10 YR 6/1 gray	-
A	19	1016	-	Body, Hand Well fired, Mixed, Medium, 2.5 YR 5/8 red2.5 YR 5/8 red	Miroschedji 1974: pl. 8, N.3
A	20	1016	-	Body, Hand Well fired, Grit, Medium, 10 R 5/6 red, 10 R 5/6 red	-
A	21	1016	-	Body, Hand Well fired, Grit, Fine, 10 YR 3/1 very dark gray, 5 YR 5/6 yellowish red	-
A	22	1014	-	Body, Hand Well fired, Mixed, Fine7.5 YR 6/6 reddish yellow, 7.5 YR 6/6 reddish yellow	-
A	23	1014	-	Body, Hand Under fired, Mixed, Coarse 5 YR 4/3 reddish brown, 5 YR 4/6 yellowish red	-
A	24	1014	-	Body, Hand Well fired, Mixed, Medium 5 YR 6/6 reddish yellow10 YR 7/3 very pale brown	-



Fig. 12: *Phases 4 and 5 (Banesh / Kaftari transition) Pottery*

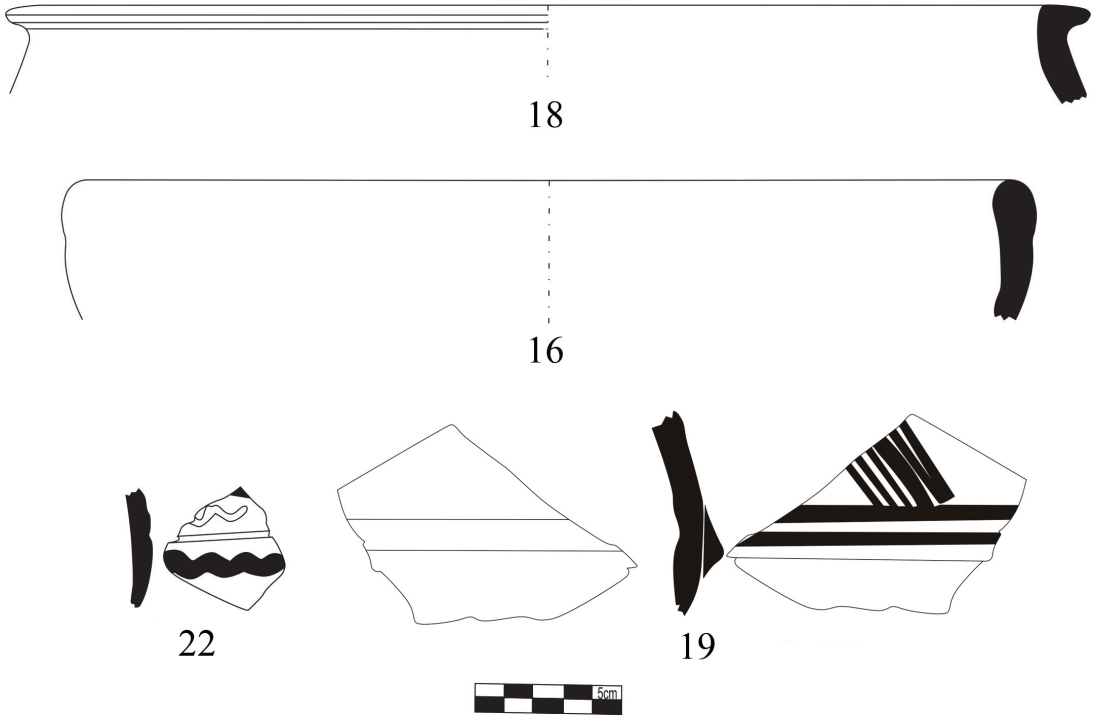


Fig. 13: *Phases 4 and 5 (Banesh / Kaftari transition) Painted Pottery*

in the late 1960s in Kur River basin (Sumner 1972: 44-48; pls, XXIII-XXXVI) and Tall-i Malyan excavations (Nickerson 1983; Miller and Sumner 2004; Sumner 1974; 1988; 2003: 52-54) provided more information about Kaftari period ceramics. According to the explorations done till now, Kaftari ceramics have been discovered in Tal-e Nokhodi (Goff 1963; 1964), Tal-e Zahak in Fasa (Stein 1936), Tal-e Espid, and Tal-e Nurabad (Potts and Rustaie 2006) and the South District of Persepolis (Abdi and Atayii 2007). Sumner divides this period into three phases : Early Kaftari (2200-1900 BC.), Middle Kaftari (1900-1800 BC.), and Late Kaftari (1800-1600 BC.) (Sumner 1989: Table 4; Petrie *et al* 2005).

During explorations in Toll-e Gap Kenareh, some deposits related to Kaftari Period were discovered in Trenches A and B. In Trench A, under the Sasanian deposits, a red-slipped ceramic was discovered, belonging to Kaftari Period. No architecture related to Kaftari Phase was noted in this trench. In Trench B, underneath Islamic period layers, some artifacts related to Kaftari Period were discovered, including a brick.

Kaftari period material was found, with buff, red, grey slipped buff, red to grey wares, sometimes polished, rarely with geometric painted designs such as horizontal bands, fine vertical lines, oblique lines, limited wavy lines by horizontal bands and bicolor bands, black, brown or red painted in monochrome wares or grey and cream in bichrome ware. This ceramic assemblage may be compared to wares from Tall-i Malyan (Sumner 1974, 1989, Nickerson 1983, Abdi 2001: 88. fig. 22) and Tall-e Nokhodi (Goff, 1963: 51-52; 1964:46-48) (Fig. 2) and be dated between 2200 and 1900 BC. (Early Kaftari phase) (Khanipour 2013a).

Sasanian Period

In Sasanian Period, Fars settlement increase considerably, which can be due to the political structure of the Sasanian state, controlling the rivers, making dams, and consequently extending the agriculture in this region. A small Sasanian settlement was also identified in Toll-e Gap

Table 3: *Catalogue of the Kaftari period ceramics of Toll-e Gap Kenareh*

Trench	Number	Context	Phase	Description:	Parallels:
A	25	2006	6	Body, Hand, Well fired, Grit, Fine, 5 YR 7/4 pink, 5 YR 7/4 pink	Abdi 2001: 88. fig. 22. No. 9 Sumner 1972: Pl. XXV.A-P;Pl. XXVI.A-D
A	26	2006	6	Body, Wheel, Well fired, Grit, Medium, 5 YR 6/6 reddish yellow, 5 YR 6/6 reddish yellow	Miller & Sumner 2004: fig. 4. F, e
A	27	2006	6	Body, Hand, Well fired, Grit, Fine, 2.5 YR 2.5/1 reddish black, 2.5 YR 6/6 light red	Guff, 1964: 74 fig 6
A	28	1010	6	Body, Hand, Under fired, Mixed, Coarse, 5 YR 4/3 reddish brown, 5 YR 4/6 yellowish red	Potts & Roustaei 2006: 351 fig: 3.114 no. 119-132-142-210
A	29	1010	6	Rim, Hand, Under fired, Grit, Fine, 2.5 YR 5/8 red, 5 YR 5/1 gray	Abdi 2001: 88. fig. 22. No. 7
A	30	1009	6	Body, Hand, Under fired, Mixed, Medium, 7.5 YR 3/1 very dark gray, 7.5 YR 6/6 reddish yellow	Potts & Roustaei 2006: 351 fig: 3.114 no. 119-132-142-210
A	31	1010	6	Body, Hand, Well fired, Grit, Fine, 7.5 YR 2.5/1 black, 2.5 YR 5/8 red	Guff, 1964: 74 fig 6
A	32	1010	6	Body, Hand, Well fired, Grit, Fine, 5 YR 7/4 pink, 5 YR 7/4 pink	Potts & Roustaei 2006: 347 fig: 3.112 no. 300
A	33	1009	6	Body, Hand, Well fired, Mixed, Fine, 10R 5/8 red, 2.5YR 6/8 light red	-
A	34	1009	6	Body, Wheel, Under fired, Mixed, Medium, 10YR 3/1 very dark gray, 10YR 5/1 gray	-
A	35	1009	6	Body, Hand, Under fired, Mixed, Medium, 10YR 4/1 dark gray, 7.5YR 6/4 light brown	Goff, 1964: 74 fig 6 Potts & Roustaei 2006: 351 fig: 3.114 no. 119-132-142-210
A	36	1009	6	Body, Hand, Under fired, Mixed, Medium, 10YR 5/3 brown, 10YR 5/1 gray	Goff, 1964: 74 fig 6 Potts & Roustaei 2006: 351 fig: 3.114 no. 119-132-142-210
A	37	1009	6	Body, Wheel, Under fired, Mixed, Fine, 2.5YR 6/8 light red, 5YR 5/4 reddish brown	Goff, 1964: 74 fig 6 Potts & Roustaei 2006: 351 fig: 3.114 no. 119-132-142-210

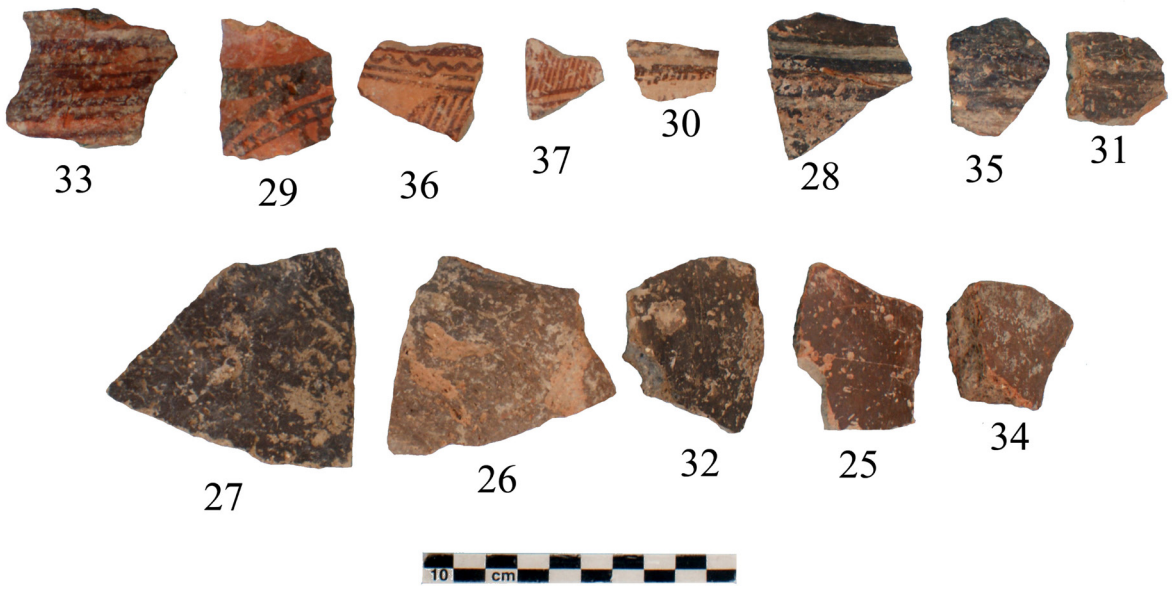


Fig. 14: *Phase 6 (Kaftari) Pottery*

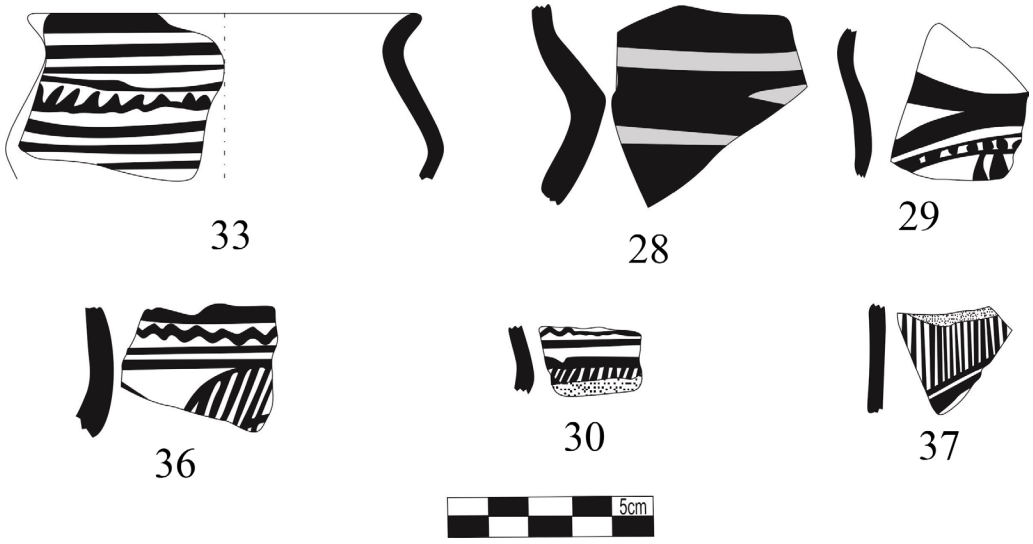


Fig. 15: *Phase 6 (Kaftari) Painted Pottery*

underneath the Islamic Period artifacts. Thickness of the deposits related to this period is less than 30 cm. Considering the thickness of the layers, and the absence of architecture, it seems that this hill had been used only temporarily in Sasanian Period. The only artifacts remaining from this period are ceramics sherds. The ceramics can be divided by color into three groups : red, buff, and gray ware, decorated by embossed or carved motives. This ceramic assemblage may be compared to wares from Tall-i Malyan (Aldan, 1978), Hajiabad (Azarnoush, 1994), Qasr-e abu nasr (Whitcomb, 1985) and Qale Yazdgerd (Keall and Keall, 1981).

Islamic Period

Marvdasht Plane with the city of Estakhr has been a very important region in early Islamic centuries, until the city was destroyed by Abu Kalijar (Ibn Balkhi, 1995: 127; Mostofi, 1960: 121). Besides the city of Estakhr, there have been villages and castles connected to this city. The latest artifacts discovered during Toll-e Gap excavations are related to the Islamic Period, and contemporary to the city of Estakhr. Since limited explorations have been done in this area, function of this site during the Islamic Period, and its relationship with the city of Estakhr cannot be explained properly. Therefore, it is necessary to do extensive explorations in this site in order to provide a better analysis of this issue. Few architectural remains of this period, as well as a number of metal objects made of bronze and iron, broken pieces of glassware and earthenware were discovered in Trench-B.

11 bronze and iron objects were recovered from Islamic periods' strata. Some of them are too eroded and fragmented to be identified functionally:

1.1- bronze vessel: from context 1003 comes a three-legged vessel with two small handle on each side and one longer handle behind (Fig. 16).

1.2- bronze tablet: a completely eroded artefact was probably a rhomboid plaque with beveled margins, attached wire and unclear designs on the reverse. Probably made to hang an ornamental object, a nail-like knob was placed on the plaque (Fig. 16).

1.3- bronze studs: found in context 2003, two bronze objects were probably used to attach ornaments (Fig. 16).

1.4- bronze fragments: several bronze and iron fragments were also found, whose functions cannot be determined because of the heavy erosion.

Up to 1,5 m depth, the ceramics comparison with Estakhr (Asadi 2012; Khanipour and Mahjoor 2012; Schmidt 1939), Bishapur (Amiri *et al.* 2013) Qasre Abu Nasr (Whitcomb, 1985) and Siraf (Ismaeili Jelodar 2010) attribute these layers to the Islamic centuries (table 4).



Fig. 16: *Phase 7 (Early Islamic), Bronze objects*

Table 4: *Catalogue of the Sasanian and Early Islamic period ceramics of Toll-e Gap*

Trench	Number	Context	Phase	Description:	Parallels:
A	38	1006	7	Rim, Hand, Well fired, Mixed, Corse, 10YR 5/1 gray, 10YR 5/1 gray	Keall and Keal 1981: fig 11 no. 4 Azarnoush 1994: fig 188 no.b Alden 1978: fig 6, no.14 Whitcomb 1985: fig.42, no. f
A	39	1006	7	Rim, Hand, Well fired, Mixed, Corse, 10YR 5/1 gray, 10YR 5/1 gray	Keall and Keal 1981: fig 17 no. 13
A	40	1006	7	Body, Hand, Well fired, Grit, Fine, 2.5 YR 2.5/1 reddish black, 2.5 YR 6/6 light red	Keall and Keal 1981: fig 13 no. 29 Azarnoush 1994: fig 188 no.g Alden 1978: fig 5, no.2
A	41	1006	7	Body, Hand, Under fired, Mixed, Medium, 10YR 8/3 very pale brown, 10YR 5/1 gray	Keall and Keal 1981: fig 28 no. 6
A	42	1006	7	Body, Hand, Under fired, Mixed, Fine, 10YR 5/1 gray, 10YR 5/1 gray	-
B	43	2001	8	Complete Profile, Wheel, Well fired, Grit, fine, 2.5 YR 8/4 pale yellow, 2.5 YR 8/4 pale yellow	Khanipour. and Mahjoor, 2012: fig.12
A	44	1002	8	Rim, Wheel, Well fired, Grit, fine, GLEY1 8/2 pale green, 5YR 7/6 reddish yellow	Whitcomb 1985: pl.22 Khanipour. and Mahjoor, 2012: fig.13
A	45	1004	8	Body, molded, Well fired, Mixed, Medium, 10YR 8/2 very pale brown, 10YR 8/2 very pale brown	Asadi, 2012: 212 fig. 28 Amiri *et al* 2012: 29 Choubak, 2012: 103 fig. 22 Schmidt, 1939: 112 Whitcomb 1985: pi.17-18 Khanipour. and Mahjoor, 2012: fig.2
A	46	1004	8	Body, Wheel, Well fired, Mixed, Medium, 10YR 8/3 very pale brown, 5YR 7/6 reddish yellow	Jelodar, 2010: 169 Khanipour. and Mahjoor, 2012: fig.5
B	47	2001	8	Body, Wheel, Well fired, Grit, Medium, 2.5 Y 8/3 pale yellow, 2.5 Y 8/3 pale yellow	Choubak, 2012: 102 fig 18 Khanipour. and Mahjoor, 2012: fig.7
B	48	2001	8	Base, Wheel, Well fired, Grit, Medium2.5 Y 8/4 pale yellow, 2.5 Y 8/4 pale yellow	Khanipour. and Mahjoor, 2012: fig.12



Fig. 17: *Phases 7 (Sasanian Period) and 8 (Early Islamic) Pottery*

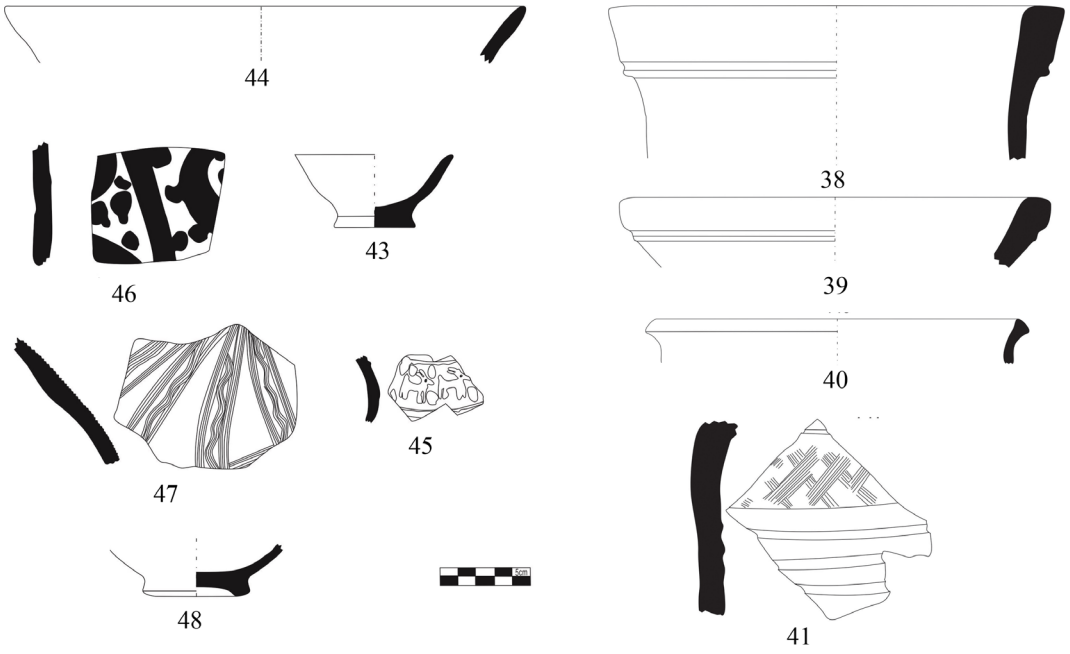


Fig. 18: *Phase 8 (Early Islamic) Painted Pottery*

Conclusion

Stratigraphic excavations at Toll-e Gap Kenareh brought fruitful results, opening new horizons in understanding the formation process of the site and the regional chronology. In total, around 5.3 m thick layers were excavated, including 8 phases dated between the late fourth millennium BC. (Early Banesh phase) and the 1st millennium AD, with a gap between the Early Kaftari phase and the Sasanian period (between the late 3rd millennium BC. and the 1st millennium AD). As explained before, the oldest settlement layer of Toll-e Gap belongs to Banesh period. According to Sumner's classification, and ceramic discovered in Toll-e Gap, the lower deposits of Trench B, which are introduced as Phase-1, belong to the Early Banesh Period. In Phase-2 Trench B, deposits made of plain and vegetal-tempered ceramics, such as beveled-rim bowls, trays or pedestal based goblets are related to the Middle Banesh Period. In lower layers of Trench A, there are ceramics tempered with fine and coarse sand, some of which are slipped by a dense layer of clay. These ceramics belong to the Late Banesh Period, and are considered Phase-3. As explained, so far Toll-e Gap is the only excavated site which contains early, middle, and later Banesh phases. In layers above Banesh Period deposits in Trench A, Banesh and Kaftari ceramics are seen together, and as we went through more recent layers, there were more Kaftari ceramics and less Banesh Ceramics. Finally, contexts 1010 and 1009 of Trench-A, and contexts 2006 and 2008 of Trench-B contained red coated ceramics of the Early Kaftari Period. According to the discovered ceramics and architecture, deposits of Banesh-Kaftari Transition Period are introduced as phases 4 and 5, and those of the Early Kaftari Period as Phase-6. Above Kaftari Period layers, there is a Sasanian Period settlement, which shows that this site has been used temporarily during the Sasanian Period. The more recent artifacts in this site belong to the 9th and 10th centuries A.D., and as the site is close to Estakhr, its function could have been related to this city. Considering the archaeological sequence in Toll-e Gap, from Banesh Period to Banesh-Kaftari Transition Period and Early Kaftari Period, it is necessary to do extensive explorations in this site in order to get a better idea of the social, economic, political, and religious life of the people living in Fars during the late 4th and 3rd millennium BC.

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