

# Investigating the Late Neolithic in the Lowlands of Southwestern Iran: Sounding at the Site of Remremeh, Mehran Plain

Hojjat Darabi, Saman Mostafapour, Ali Yari, Farhad Mohammadi, Someiyeh Zeinali, Mahtab Shahverdi, and Iraj Fadaeian

## Introduction

Over the last decade, Neolithic archaeology of highland central Zagros and the nearby lowlands of southwestern Iran has mainly concentrated on the initial stages of farming and sedentary life (*cf.* Mathews *et al.* 2013; Riehl *et al.* 2013; Darabi 2015; Darabi *et al.* 2019). Therefore, early Neolithic sites have been given attention while the nature of cultural development and transformation of later Neolithic societies has often been overlooked. Previous investigations had placed the emergence of pottery in the above noted regions, as the hallmark of the two periods, within roughly the mid-6<sup>th</sup> millennium BCE (see Hole *et al.* 1969; Mortensen 1991, 2014). However, recent evidence showed that the earliest true ceramic vessels appeared around 7,000 BCE, synchronously with adjacent regions across the Near East (Darabi 2018). The time spanning from the early 7<sup>th</sup> to the early/ mid 6<sup>th</sup> millennium BCE merits its own attention as it saw some profound socio-economic developments that resulted from the manufacture of various ceramic styles, the appearance of domestic pig and cattle and an increase of inter-regional interactions. To date, the diachronical sequence of ceramic styles is not well-known in the region. Also, only a small amount of data on the mechanisms of domestication of pig and cattle is available. However, archaeological finds attest to an increasing level of inter-regional interactions of societies, especially between Mesopotamia and Iran. In this regard, late Neolithic sites should draw our attention. This paper thus briefly presents a preliminary report of a sounding at the late Neolithic site of Remremeh, Mehran Plain.

## The Site

Remremeh (E 611893, N 3667097) is located on the Mehran Plain, southwestern Iran, *c.* 2km to the northeast of Mehran town, Ilam Province, at an elevation of 170m above sea level (Fig. 1). Due to the massive sedimentation of the plain, the site is presently not easily seen above the surrounding fields, though its central part is fairly raised, 1-2m (Fig. 2). Compared to its surrounding regions, such as Deh Luran or Iraqi Mandali, the Mehran Plain has seen much less archaeological research. The plain was first surveyed in the 1990s (Khalilian 1996; Nokandeh 2010). However, Remremeh was not identified until 2010 when a notable number of new sites were located on the plain (Darabi *et al.* 2012; Javanmardzadeh *et al.* 2013). The site is

situated on the bank of a perennial stream flowing down from hills to the north/northeast. Additionally, the area has fertile soil and is now intensively cultivated. In recent years, the site has been damaged by agricultural activities. As seen from surface finds, the formation and development of the site appears to have been spatially segregated in that each area contains remains of a separate period. In this regard, late Neolithic/early Chalcolithic finds are more concentrated in the central and eastern parts, while proto-historic remains are found in the south/southwestern areas. Remremeh is thus a large site that provides evidence of a long sequence of occupation on the plain.

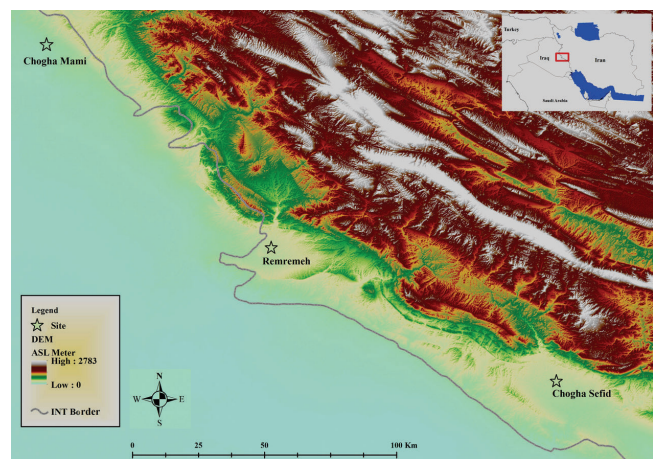
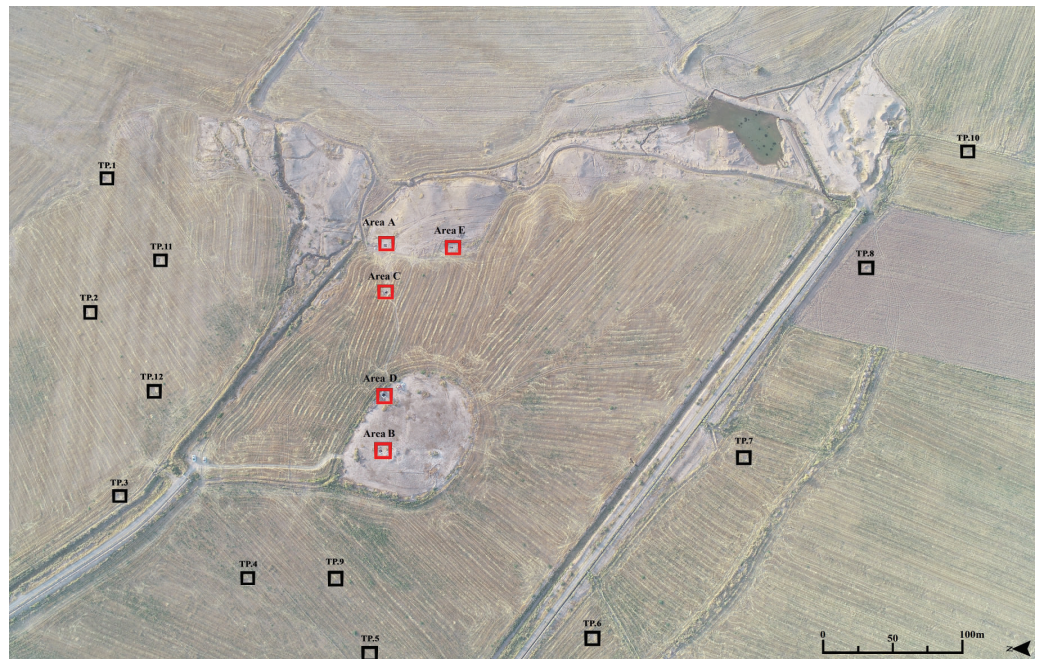


Fig. 1 Map showing location of the site of Remremeh on the Mehran Plain and the other two prominent sites of Chogha Mami and Chogha Sefid in Mandali and Deh Luran, respectively. (Map: S. Bahramiyan)

## Sondages

As noted, the central and eastern areas of the site have a high concentration of Neolithic finds, in particular, sherds of soft-ware and flint tools on the surface. Interestingly, a notable amount of painted fine buff ware, known as late Samarra/ Chogha Mami Transitional (CMT), is also seen among the Neolithic assemblages. In order to gain data on the chronology of the site and the stratigraphic correlation of Neolithic soft-ware to the so-called CMT materials, to assess the nature of the introduction of the latter into the Iranian frontiers, and to delineate the site area, we opened sondages and test pits in and around Remremeh in May- June 2020 (*cf.* Fig. 2).

Fig. 2 Aerial view of Remremeh showing location of excavation areas in red and site delineation test pits in black. (Photo: H. Darabi)



Based on the concentration of surface materials, we first focused on the eastern edge of the site and then tested the nature of the archaeological deposits in the central part. The fact that the stratigraphic relationships of local Neolithic entities and the reportedly later Mesopotamian elements was our main aim, we opened a total of five sondages, labelled Areas A-E. All areas, except Area E, were initially sized 2 x 2m and then reduced in size during the excavation.

In Area A, where large amounts of Neolithic, and to a lesser degree CMT sherds, are visible on the surface, we dug approximately 2m of deposits overlying the virgin soil. Judging from intensified concentrations, an unusual amount of potsherds and the presence of sand, sometimes concreted over the sherds, as well as the process of deposition, it became apparent that the finds are water-lain and appear to have been redeposited by fluvial actions through time (Fig. 3).

Area B was opened at the top of central part of the site. After digging 215cm of mostly silty-clay to clayey deposits, the excavation was stopped. In addition, no results were obtained from Area C, where again 2m of silty-clay and clayey deposits, devoid of *in situ* archaeological finds, were dug. The majority of stratigraphic information thus comes from Area D. Unexpectedly, we excavated around 6m of archaeological deposits down to the virgin soil (Fig. 4). At a depth of 2m below the surface, the size of the excavation area was reduced to 1 x 1m and the layers became increasingly wet at lower levels. Thanks to architectural remains, plastered or beaten floors and concentrated horizontal distribution of finds at the same level, a total of 10 occupational phases were distinguished. As seen from the finds, especially ceramic types (*cf.* below), this area contained a long sequence of late Neolithic settlement; no CMT ceramics were found there.

Lastly, Area E was opened to recover and document some stone alignments that were visible on the surface

and associated with a mixture of both Neolithic and CMT sherds (Fig. 5). This area was initially 4 x 2m but then reduced in size. Excavation ceased at a depth of 124cm below the surface. Similar to Area A, a huge amount of potsherds resulting from fluvial activities was recovered.

In addition to the above mentioned areas, in order to delineate the site a total of 12 test pits, 1.5 x 1m in area, were dug around it (*cf.* Fig. 2). Although massive sediments played an important role in the formation of the site making its delineation difficult, the test pits suggest that the overall area was roughly 150,000m<sup>2</sup>.

## The Finds

As result of the soundings at Remremeh a large number of ceramic fragments (*c.* 14,000) was found, mostly from Areas A and E. Our preliminary observations indicate that they have close similarities to those previously reported from the Neolithic sites of Ali Kosh



Fig. 3 Concentration of redeposited ceramic sherds in Area A. (Photo: F. Mohammadi)

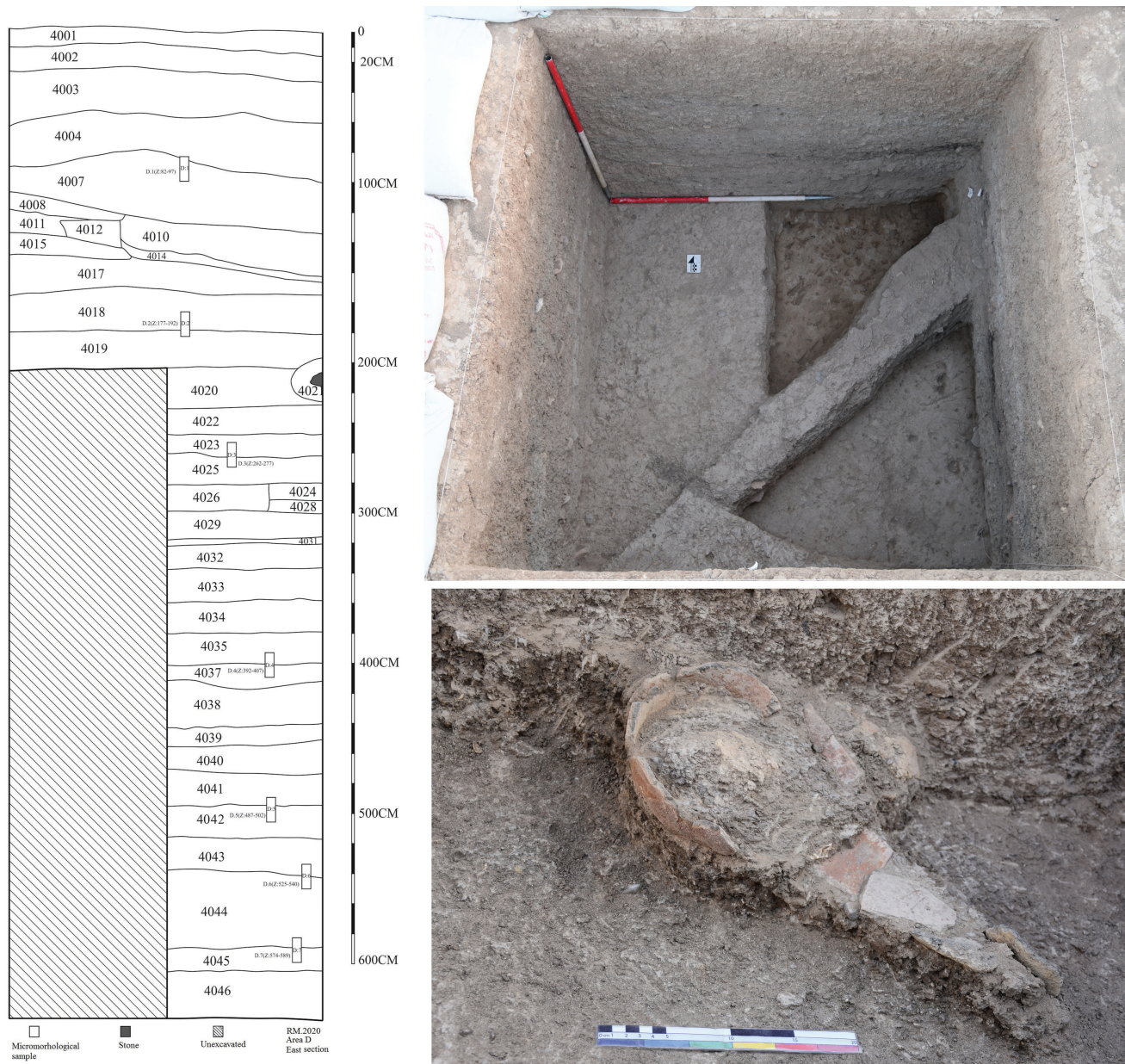


Fig. 4 East Section of Area D and recovery of clay wall and a broken ceramic vessel in the upper levels. (Drawing/ Photos: S. Mostafapour and S. Zeinali)

and Chogha Sefid on the Deh Luran Plain (*cf.* Hole *et al.* 1969; Hole 1977). Also, some samples suggest the presence of the Hassuna tradition (see Lloyd and Safar 1945; Braidwood *et al.* 1952; Mortensen 1970; Merpert and Munchaev 1978), while others are identical to the late Samarra/ CMT styles (*cf.* Braidwood *et al.* 1944; Oates 1968, 1969, 1987, 2013; Hole 1977; Blackham 1996; Nieuwenhuys 1999; Nieuwenhuys *et al.* 2001). Therefore, we have applied the terminology previously known from the region and classified samples into so-called types of “Ja’far Plain”, “Khazineh Red”, “Sefid Black-On-Red”, “Coarse Straw-Tempered, Chaff-Faced Buff Ware” (Hassuna style) and “CMT style” (Fig. 6). Straight-sided fragments and samples with carination and convex or concave walls are common among the Neolithic assemblage. While the first three types are well-known from the Deh Luran sequence, *i.e.*, Mohammad Ja’far through Surhk phases, others

indicate the influence of both Hassuna and Samarran cultural elements. In addition to a large amount of Hassuna Coarse Chaff-Faced Buff Ware and also a few examples with applied decoration, the presence of husking trays is of importance at the site. In Areas A and E, CMT samples were found along with both coarse buff or red Neolithic ceramics though their frequency is much lower. As noted before, however, these two areas show deposits affected by alluvial activities, indicating a temporally mixed context.

A total of *c.* 1200 pieces of chipped stone were found, mostly from Areas A and D. Regarding raw materials, finely-grained dark or medium grey flint, dark reddish brown or light olive grey chert, black or medium dark grey or dark greenish grey obsidian and brownish grey siliceous limestone were utilized (Fig. 7). Flint (totally 75%) is more common than other stone raw materials. Our observations show that all



Fig. 5 Stone alignments exposed in Area E. (Photo: F. Mohammadi)

materials, except for obsidian, were locally available. Various types of flake, blade(let) or mixed cores are present in the collection. Flake cores are predominant, while blade(let) cores are fewer. Only two typical bullet-shaped cores were found from the lower levels in Area D. In all, 363 lithics were recorded as tools: made on flake (41%), blades (34%), bladelets (21%) and unknown blanks. Tools are typologically dominated by denticulates, notches, retouched pieces, utilized blades/bladelets and scrapers, while a small number of small

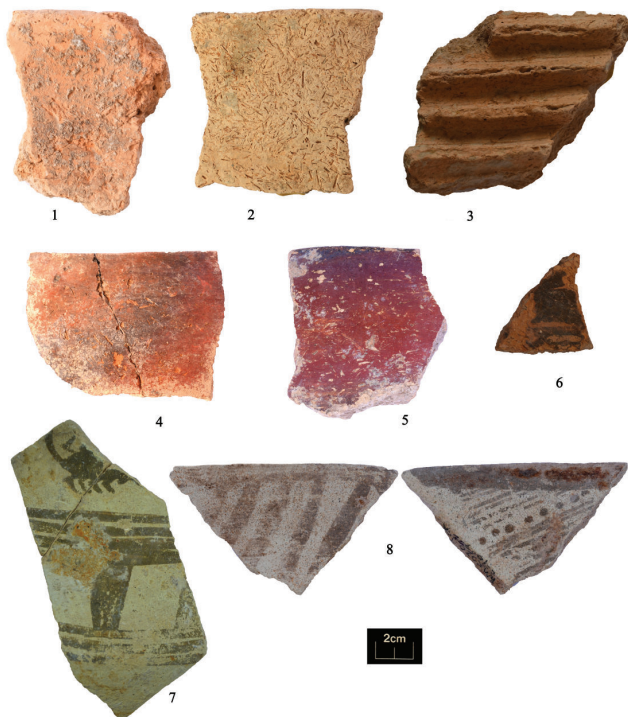


Fig. 6 Ceramic styles recovered from the site: 1 Ja'far Plain; 2 Hassuna Coarse; 3 husking tray; 4 Khazineh Red; 5 Sefid Black-on-Red; 6 Sefid Black-on-Cream; 7-8 Late Samarra/ CMT. (Photos: F. Mohammadi and H. Darabi)

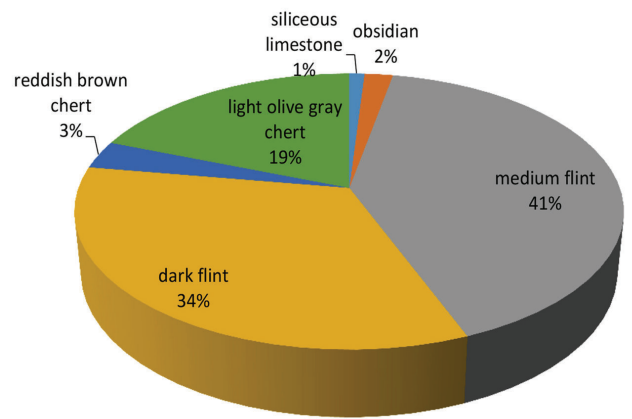


Fig. 7 Frequency of raw materials used to produce stone tools. (Graph: H. Darabi)

burins, sickle blades or geometrics were present (Fig. 8). The amount of chopping-tools is also considerable at the site (Fig. 8). Although all excavated sediment was screened, no debris was found suggesting that these may have been washed away over time. Preliminary analysis shows that though making flakes is seemingly prioritized, a considerable amount of the tools are made on blade(lets). Interestingly smaller tools were mostly produced from small pebbles that have a limestone cortex and are readily available in the nearby river beds. On the other hand, bigger tools were made of local cortical chert, a material that was in use since Paleolithic times on the plain (*cf.* Darabi *et al.* 2012).

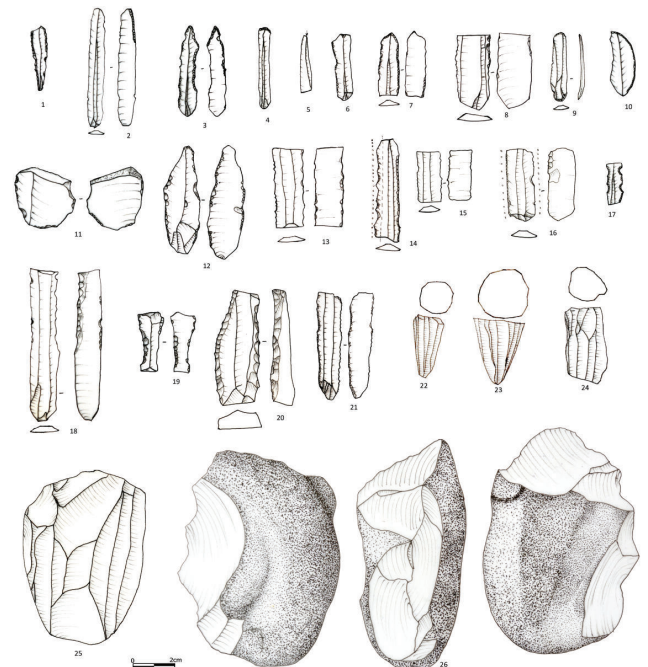


Fig. 8 A selection of chipped stone from the site: 1,3 drill; 2 partially-retouched bladelet; 4 convex-end scraper on bladelet; 5 small burin; 6,17 notched blade; 7 end-scraper on blade; 8,18-21 retouched blade; 9 convex-end scraper on blade; 10 side scraper; 11 round scraper; 12 double-side scraper; 13,15 denticulated blade; 14,16 sickle blade; 22-23 bladelet bullet-shaped core; 24 blade(let) core; 25 mixed core; 26 chopper. (Drawings: H. Darabi)

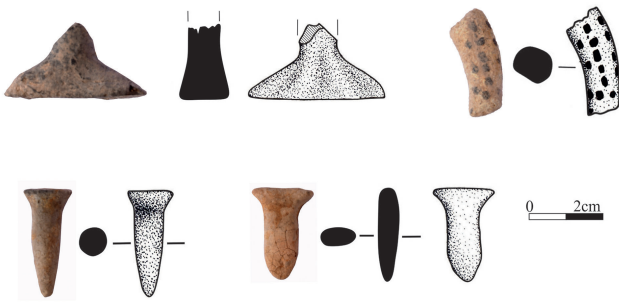


Fig. 9 Examples of broken clay figurines and nail-like objects. (Drawings: S. Zeinali)

However, the presence of tools such as wide blades and, in some cases, geometrics, places the entire chipped stone assemblage within the Late M'lefatian industry (cf. Kozłowski 1999).

In addition to pottery and chipped stone, our brief soundings yielded a total of 166 examples of various artifacts including ground stone, clay tokens, clay figurines, nail-like objects, beads, a stamp seal, and other objects of ceramic, bone or stone (Fig. 9). Of the figurines, both T-shaped and painted terracotta samples are of interest. These are well-known from local Neolithic and Samarran contexts, respectively (for example see Hole *et al.* 1969: 226, Fig. 98; Oates 1969: Pl. 38-39; 2013: 413, Fig. 37.9; Hole 1977: 229-230). Additionally, the presence of nail-like clay or stone objects is also considerable at the site (Fig. 9). Although their function in the past is not yet well-known, they have so far been labelled as “muller”, “labrets” (cf. Hole 1977: 368, Pl. 54) “toilet items” or “ornaments” (Oates 1969: 130). Although the role and spatial-temporal distribution of these artefacts merits a separate detailed investigation, they are usually recovered in Samarran contexts as previously documented from sites such as Chogha Sefid, Chogha Mami and YarimTepe I.

## Concluding Remarks

Our information about the late Neolithic in western/southwestern Iran is mostly based on excavations conducted in the 1960-70s. Moreover, Neolithic investigations have mainly dealt with earlier stages, *i.e.*, Pre-pottery or Transitional Neolithic. This highlights the significance of new finds in these two regions. Our brief sounding at Remremeh thus should be taken as a foundation for larger question-oriented excavations in the future. Currently, we know that this site likely was occupied during the 7-6<sup>th</sup> millennia BCE, though it needs to be radio-carbon dated to substantiate this. Given the location of the Mehran Plain presence of combined archaeological assemblages, previously reported from the Deh Luran Plain and Mesopotamian lowlands, is not unusual. The occurrence of coarse straw-tempered ware and husking trays, however, indicates Hassuna elements at Remremeh. This indicates that Remremeh

has a complete, but complex, mixture of late Neolithic entities in the Eastern Fertile Crescent. A seemingly lack of interaction with the high central Zagros may be resolved with further excavations at the site.

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### Hojjat Darabi

Dept. of Archaeology, Razi University, Kermanshah  
Center for the Study of Early Agricultural Societies (CSEAS), University of Copenhagen  
(hojjatdarabi@gmail.com)

### Saman Mostafapour

Dept. of Archaeology, Razi University, Kermanshah

### Ali Yari

Dept. of Archaeology, Razi University, Kermanshah  
Office of Cultural Heritage, Tourism and Handicraft of Ilam Province

### Farhad Mohammadi

Department of Archaeology,  
Shahid Beheshti University, Tehran

### Someiyeh Zeinali

Department of Archaeology, University of Kashan

### Mahtab Shahverdi

Dept. of Archaeology, Razi University, Kermanshah

### Iraj Fadaeian

Department of Archaeology, Islamic Azad University,  
Science and Research branch, Teheran

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