



**HAL**  
open science

# New Data on the Chalcolithic and Bronze Age Periods in the South-Eastern Greater Periphery of the Jazmurian Basin: Archaeological Survey Along the Sarbaz Valley and in Adjacent Areas in Iranian Baluchestan

Hossein Sarhaddi-Dadian, Benjamin Mutin, Hossein Moradi

## ► To cite this version:

Hossein Sarhaddi-Dadian, Benjamin Mutin, Hossein Moradi. New Data on the Chalcolithic and Bronze Age Periods in the South-Eastern Greater Periphery of the Jazmurian Basin: Archaeological Survey Along the Sarbaz Valley and in Adjacent Areas in Iranian Baluchestan. *Iran : journal of the British Institute of Persian Studies*, 2019, 58 (1), pp.3-26. 10.1080/05786967.2019.1566762 . hal-03856144

**HAL Id: hal-03856144**

**<https://hal.science/hal-03856144v1>**

Submitted on 28 Nov 2022

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# New Data on the Chalcolithic and Bronze Age periods in the South-Eastern Greater Periphery of the Jazmurian Basin: Archaeological Survey along the Sarbaz Valley and in Adjacent Areas in Iranian Baluchestan.

Hossein Sarhaddi-Dadian, Benjamin Mutin, Hossein Moradi

## Abstract

This article reports results from an archaeological survey conducted along the Sarbaz Valley and in adjacent areas in parts of Sarbaz and Chahbahar counties in the Sistan and Baluchestan province of south-eastern Iran. The surveyed area is located in the south-eastern greater periphery of the Jazmurian Basin, in-between the Bampur Valley ca. 120 km. to the north-west and the Kech-Makran region less than 100 km. to the south-east in Pakistan. Both these two regions were investigated in the past and yielded abundant archaeological records dating to the Chalcolithic and Bronze Age periods. It was particularly interesting to explore the area considered in this article to understand how it connected with these two archaeologically-rich neighbouring regions during these periods. From a broader perspective, this survey also aimed to contribute to the reconstruction of the ancient cultural spheres—the location of their spatial boundaries and intra- and inter-regional interaction routes—in the south-easternmost territories of the Iranian Plateau. As a result, twenty sites dating to the Chalcolithic and/or Bronze Age periods were found. These sites and their surface materials are here presented and discussed with reference to the broader context of these periods in these territories.

**Keywords:** Survey, Sarbaz River, Iran, Chalcolithic, Bronze Age.

## Introduction

Ten years ago, sections of the Sarbaz Valley and adjacent territories in the Sarbaz and Chahbahar counties in Iranian Baluchestan were surveyed to study and define for the first time these areas' ancient settlement. The surveyed area borders the Kech-Makran region of Pakistani Baluchestan to the east and Iranshahr County to the north-west, where the Bampur Valley lies (Figure 1). It is included within the Makran Mountain Range which extends along the Gulf of Oman and the Arabian Sea, from the Strait of Hormuz in the west to Las Bela in Pakistan in the east. It therefore essentially consists of mountains and narrow valleys. A large portion of its terrain is between 500 and over 1000 m. in altitude, with hilltops higher than 1500 m., although these altitudes decrease in its southern part (Figures 2-3). Sarbaz River is the major and single, perennial river of the area. It originates in the Kash Mountains in the north and flows southward through the middle of Sarbaz County and its main cities—Sarbaz, Parud, Rask, and Pishin. It then continues further to the south into the Dashtyari Plain, where it is named Bahu River, and the Gulf of Oman. In a county that mostly consists of mountains and narrow valleys, it is not surprising that, today, a large portion of its population is massed in the Sarbaz Valley; most of available land along its bed seems to have been taken advantage of for dwelling and agricultural production. The area is today also the territory of Baloch nomads.

[Figure 1]

The survey reported here recorded 39 archaeological sites, out of which 20 sites date to the Chalcolithic and Bronze Age periods (fourth and third millennia BCE). These Chalcolithic and Bronze Age sites are the focus of the present article. The rest are either dating to more recent periods (early historical periods/Middle-Age), or their surface materials are not diagnostic enough to allow clear chrono-cultural determination, and will be discussed elsewhere. No older site was identified. Located close to and in-between the archaeologically-rich Bampur Valley to the north-west and Kech-Makran region in Pakistan to the south-east, the surveyed area was likely to hold the remains of prehistoric and protohistoric sites as well as natural routes between these two regions during these periods.<sup>i</sup> Past research in the Bampur Valley indeed yielded many archaeological sites. M.A. Stein was the first to record ancient settlements in this valley in 1932, including Tepe Bampur and Khurab dating to the Bronze Age period (third millennium BCE) and other sites dating to the Chalcolithic period (fifth/fourth millennia BCE) including Chah Husaini.<sup>ii</sup> Later, in 1966, B. de Cardi excavated at Tepe Bampur and surveyed the Bampur Valley,<sup>iii</sup> while additional discoveries made around the same time in the nearby Damin Valley provided supplementary elements on the area's occupation during the Bronze Age.<sup>iv</sup> New field research projects were then conducted around thirty years later, beginning in

1999. These projects include: an excavation by M. Heydari at Tepe Rubahak near Saravan in 1999 as well as surveys and excavations by the same scholar between 2002 and 2012 in several regions of Baluchestan including at the sites of Spidej, Chegerdak, and Keshik; renewed excavation by M. Sajjadi at Tepe Bampur in 2002; survey by M. Mortazavi in the Bampur Valley in 2002 and in the Damin Valley in 2006; and an excavation by M. Rahbar at Saidabad near Tepe Bampur in 2003.<sup>v</sup> A survey conducted by H. Moradi in 2011 confirmed the presence of a substantial Chalcolithic and Bronze Age occupation and of more recent sites along the Bampur River. Indeed, from Tepe Bampur to ca. 30 km. westward, this survey recorded 81 sites dating to the Chalcolithic, Bronze Age, and early historical periods.<sup>vi</sup> Certainly, the chronology of the Bampur Valley will not be precisely established until new well-dated material is excavated in this valley; however, by comparing these discoveries with dated data from Kerman and Kech-Makran, these recent field research projects have considerably helped specify its chrono-cultural sequence. The vast graveyard dating to the third millennium BCE at Chegerdak and the site of Spidej<sup>vii</sup> have shown the existence of Bronze Age settlements outside and west of the main core of sites known for a long time essentially in the Bampur and Damin valleys. In addition to these discoveries, rock art was found in Saravan County, the county located east of the Bampur Valley and north of Sarbaz County;<sup>viii</sup> additional protohistoric sites and a paleolithic industry were found in the Kash County, the county located just north of Saravan County;<sup>ix</sup> and eleven assemblages of rock art were recorded in the Kajou Valley, ca. 60 km. west of the Sarbaz Valley, with the oldest ones dating to the Late Chalcolithic/Early Bronze Age periods.<sup>x</sup> P. Pfälzner and N.A. Soleimani recently surveyed several areas between Jiroft in the Halil Rud Basin and Minab near the coast, in the western half and periphery of the Jazmurian Basin. The sites they reported include Chalcolithic and Bronze Age settlements.<sup>xi</sup> In Kech-Makran, Pakistan, Major Mockler, a British officer stationed in Gwadar in the late nineteenth century, was the first to report the presence of archaeological sites including Sutkagen-Dor, a site interpreted as an outpost of the Indus Civilization, and the numerous funerary cairns that R. Besenval later dated, with reservation, to around the beginning of the Common Era.<sup>xii</sup> Stein, before investigating south-eastern Iran, had explored Kech-Makran in the late 1920s. He conducted surveys there and excavated the site of Shahi-Tump in the western periphery of Turbat in the Kech Valley.<sup>xiii</sup> The sites and objects he recorded include materials dating to the Chalcolithic and Bronze Age periods. Later, in 1960, G. Dales visited Sotka-Koh, another important outpost of the Indus Civilization, and opened test-trenches at Sutkagen-Dor.<sup>xiv</sup> Around thirty years later, Besenval developed a twenty-year research program in the 1990s and 2000s that included surveys in the region and excavations at the sites of Miri Qalat and Shahi-Tump in the Kech Valley. This program recorded numerous sites dating to between the fifth millennium BCE and the medieval period and provided the first detailed definition and chronology of the archaeological cultures in Kech-Makran during Protohistory and early History including during the Chalcolithic and Bronze Age periods.<sup>xv</sup>

The aggregate of these works certainly has brought significant information as to the ancient occupation in these Iranian-Pakistani borderlands, including on the Chalcolithic and Bronze Age periods between the fifth and third millennia BCE. We know more about the chronology and material cultures of the communities of these periods and in some cases about their habitats, funerary practices, and relationships. Nonetheless, the whole region—Iranian Baluchestan and Kech-Makran—is over 200,000 sq. km., and many areas of this vast territory are still unexplored. The current picture of this region during the Chalcolithic and Bronze Age periods is reconstructed based on the above-mentioned fieldwork and for a large part on data from the Bampur Valley area and Kech-Makran, the two areas that were studied the most and where stratigraphic excavations took place. Besides the excavated contexts in these areas our knowledge of the Iranian Baluchestan/Kech-Makran region is based on surface material, ceramic fragments in particular. Spatial analysis of the distribution of this material has revealed that separate spheres relating to different ceramic styles existed in this region between the fifth and third millennia BCE. To put it simply, based on current data the Bampur Valley may be defined as: (1) An area that was included within the distribution sphere of the main ceramic styles typical of a large part of Kerman between the mid-fifth and early fourth millennia BCE—Black-

on-buff ware and Black-on-red ware; it represents the southernmost zone of this sphere and none is observed in Kech-Makran where ceramics seem mostly absent in the fifth millennium BCE; (2) An area that was included within the distribution sphere of the main ceramic styles typical of Kech-Makran during the fourth millennium BCE—Miri ware and Early Shahi-Tump ware; it represents the north-westernmost area of this sphere. It was also part of the sphere that characterized Kerman at that time, represented by Aliabad ware; (3) An area that was outside of the Uruk/Proto-Elamite sphere which extends to Kerman and Sistan between the mid-fourth and early third millennia BCE, but that was part of other, larger spheres of exchange or diffusion of materials, technologies, and/or styles which covered Kech-Makran, Kerman, and Sistan and Baluchestan: e.g. Late Shahi-Tump ware around 3000 BCE;<sup>xvi</sup> (4) An area whose material culture is stylistically so close to Kech-Makran during the first half of the third millennium BCE that it is included within the same cultural sphere, while parallels and exports limited to more specific types of vessels are noted between this sphere and Kerman and Sistan as well as with the Oman Peninsula;<sup>xvii</sup> and (5) In the second half of the third millennium BCE, the Bampur Valley and Kech-Makran follow separate trajectories including in their ceramics since the assemblage of the latter region includes styles typical of the Kulli Culture and Indus Civilization in Pakistan and holds the westernmost settlements relating to the Indus Civilization, including Miri Qalat and Sutkagen-Dor near the Iranian border, whereas none is recorded in Iran.<sup>xviii</sup>

An issue remains that it is not always clear whether and where these distributions reflect the dispersals of styles, objects, or peoples, and whether and where they reflect interactions between distinct cultural groups or within a same cultural group. We believe distances had a role in the nature of the relationship; for instance, exchange of objects and ideas seems in practice easier between two sites in the Kech Valley, such as Miri Qalat and Shahi-Tump, than between this valley and the Bampur Valley, located ca. 300 km. apart. It also seems more logical to envision that the communities at these two sites in the Kech Valley had a closer relationship than with communities settled in the Bampur Valley. However, in addition to the fact that these statements are not absolutely certain, particularly the latter, at a greater, regional and interregional, scale of analysis, it becomes even more difficult to know in each case the nature of the relationship between sites having same ceramic styles and where we can define this ceramic relationship as either an intra- or an inter-territorial interaction, that is an interaction that occurred either within or between the territories of cultural groups. An additional issue is that the chronological periods we are working with are defined on the basis of ceramic styles of long *durées* and with relatively limited stylistic changes, apparently lasting for several hundred years and even more than half a thousand years in some cases. It is consequently difficult to assess whether the maps of material distribution we reconstruct reflect contemporaneous or successive settlements.<sup>xix</sup>

Various processes were certainly at play in the construction of these spheres of ceramic distributions, processes that ranged from just the spread of stylistic trends, trade of containers and/or their contents, to settlement shifts and population replacement, and, fortunately, composition analysis helps narrow down the range of possibilities.<sup>xx</sup> Before investigating these possibilities, however, the spatial limits and internal connections—the routes—of these distributions are fundamental aspects that need greater precision in the region discussed here as well as in Iran and Pakistan in general. It is only through the combination of continuous efforts in the field and analysis of the collected material in the many, most often isolated, unexplored areas of the Iranian Baluchestan/Kech-Makran region that one will be able to slowly reconstruct these aspects. This survey along the Sarbaz Valley and in adjacent areas is such effort which, combined with other, contributes to the reconstruction of the broader picture of the ancient Indo-Iranian Borderlands.

## Archaeological Sites, Surface Materials, and Chrono-Cultural Associations

All sites reported here are located in the southern half of Sarbaz County and in the north-eastern corner of Chahbahar County. These sites divided into three main archaeological zones, Zones 1 to 3

(Figure 2). Zone 1 is located around the town of Murtau in the north-eastern portion of the area considered in this article. Zone 2 mostly consists of sites located along the Sarbaz River between Parud and Rask as well as one site located ca. 15 km. further south near Gaz Anguri and two sites located near Beris and Garen, respectively less than ca. 10 and 20 km. further to the north-east. Zone 3 is in the southern part of the area considered here and includes sites located mostly between Pishin and the Keshari Plain as well as one site located less than 15 km. further south. Apart from one site near Pishin, the sites in Zone 3 are all in Chahbahar County.

[Figure 2]

In Zones 1 and 2, the terrain consists of mountains topping at more than 1500 m. in altitude, cut in places by narrow and relatively narrow valleys. These are either east-west oriented, parallel to the direction of Makran range, or they cut through this mountain range in an overall north-to-south direction such as the Sarbaz Valley (Figure 3). A second type of environment is observed around the town of Pishin in Zone 3. It consists of a ca. 6-8 km. wide, east-west oriented, flat plain, bordered by a series of alluvial cones along its northern edge. This plain continues into Pakistan to the east, where it connects with the Nahang/Nihing Valley and then the Kech Valley. The archaeological sites of Shahi-Tump and Miri Qalat in the Kech Valley are ca. 125 km. east of Pishin. South of Pishin, the Sarbaz Valley is wider than between Parud and Rask and is now named Keshari Plain. The landscape in this area is mountainous, although the mountains are lower than further north, around 500 m. in altitude at most (Figure 3). Further south, the Sarbaz River becomes the Bahu River and continues into the Dashtyari Plain and the Gulf of Oman. The Dashtyari Plain is a vast sedimentary plain that spreads east of Chahbahar and connects further east to the Dasht and Makran Coastal plains in south-western Pakistan.

[Figure 3]

As noted above, 20 archaeological sites dating to the Chalcolithic and/or Early Bronze Age periods are recorded in these three zones (Tables 1-2). The material culture at most of these sites unsurprisingly parallels assemblages dating to between the early-fourth and the mid-third millennia BCE observed in Kech-Makran to the south-east and the Bampur Valley to the north-west. These include ceramics relating to: Miri ware in Kech-Makran Period II (first half of the fourth millennium BCE), Early Shahi-Tump ware in Early Period IIIa (around the middle and second half of the fourth millennium BCE), Late Shahi-Tump ware in Late Period IIIa (late fourth-early third millennia BCE), ceramics in Period IIIb (ca. 2800-2600 BCE), and ceramics in Period IIIc (ca. 2600-2500 BCE), as well as to assemblages recorded to the north-west, including from Tepe Bampur Periods I-VI, Khurab, Damin, Chegerdak, and Chalcolithic and Bronze Age sites recently surveyed in the Bampur Valley (Table 3).<sup>xxi</sup> These periods in Kech-Makran roughly correspond to and overlap with the Late Chalcolithic 1, 2, 3 and Early Bronze 1, 2 periods in the periodization used by Pfälzner and Soleimani in the western periphery of the Jazmurian Basin.<sup>xxii</sup> It is needless to say that the dating of these sites is based on their surface materials, which mostly consist of fine, painted ceramic fragments. And we have some reservations as to the dating of five to eight of them which yielded materials that seem compatible with these periods but no clear diagnostics. In total, seven sites are securely dated to the Late Chalcolithic period (contemporary with Kech-Makran Periods II and/or Early IIIa), and eight sites are securely dated to the Early Bronze Age period (contemporary with Kech-Makran Late IIIa and/or IIIb, as well as possibly IIIc periods). These numbers increase to 13 (or even 17) and 12, respectively, when sites with more challenging assemblages are included (Table 2). Only two sites, or possibly three, seem to have both Late Chalcolithic and Early Bronze Age occupations. Otherwise, a shift in site location is apparent between these two periods. This observation is however based on the sites securely dated only and therefore may not be true when all sites are considered.

[Table 1]

[Table 2]

[Table 3]

### ***Zone 1: Murtan Area***

Two sites are near Murtan: sites 26495 and 26520. Site 26495 is located in an intermontane valley parallel to the east-west mountainous ridges of Makran range, and site 26520 is in a valley parallel to it less than ca. six km. to the south-west.

#### *Site 26520*

Site 26520 is ca. 3 ha. and has less than one-meter thick archaeological deposits relative to current ground surface. It yielded fragments of fine, painted ceramics of grey, light brown and pinkish surface colours, with profiles and motifs typical of (Figure 4: nos. 2, 4, 6-9, 11-12), or compatible with (Figure 4: nos. 10, 13), Miri ware in Kech-Makran II.<sup>xxiii</sup> One sherd bears a painted palm tree motif (Figure 4: no. 5). The palm motif emerges mostly with Late Shahi-Tump ware in contexts contemporary with Late Period IIIa in Kech-Makran as well as Tepe Yahya IVC in Kerman and becomes common together with the palm tree motif during the third millennium BCE from south-western Pakistan to Kerman as well as in Sistan. It is recorded in Kech-Makran IIIb-IIIc, Tepe Bampur I-VI, at Chegerdak, in Tepe Yahya IVB, at Konar Sandal South, and in Shahr-i Sokhta II.<sup>xxiv</sup> The present specimen of such motif rather relates to the later examples than those recorded in Kech-Makran Late IIIa and Tepe Yahya IVC. Additional fragments collected at site 26520 also seem to connect more to Kech-Makran IIIb-IIIc than to Kech-Makran Late IIIa (Figure 4: nos. 1, 14).

#### *Site 26495*

Site 26495 is ca. 0.4 ha. and ca. 0.1 m. thick. The diagnostic fine, painted ceramic fragments from this site have parallels in Kech-Makran Late IIIa and IIIb as well as in contexts contemporary with these periods in south-eastern Iran. The friezes filled with triangles with curved sides, or garland motifs, painted on the exterior rim surfaces of two bowls in particular (Figure 4: nos. 15, 17), are typical of these periods and are also observed on similar fine, painted ceramics recorded in Tepe Bampur I-II, at Chegerdak, and in Tepe Yahya IVC.<sup>xxv</sup> The rest of the ceramics collected at this site are compatible with this chronological association, although one sherd (Figure 4: no. 16) resembles more Miri ware of Kech-Makran II. One sherd bears interspersed strokes perpendicular to the rim on its exterior surface (Figure 4: no. 23). Such marks result from shaping and regularizing the vessel with a tool while the vessel was rotating. It is well-observed on fourth and third millennia BCE ceramics in the Indo-Iranian borderlands and is not in contradiction with the relationships we see between site 26495 and the above-mentioned materials from south-eastern Iran and south-western Pakistan.

[Figure 4]

### ***Zone 2: Along the Sarbaz Valley***

The sites in Zone 2 consist of five sites within the Sarbaz Valley and three other sites in adjacent valleys at close distance. Only one additional site, site 26349, is located further away.

#### *Site 26349*

Around 34 km. west of, and in the same intermontane system as, site 26520, site 26349 is a flat archaeological area of ca. 0.12 ha. The few painted sherds collected at this site are comparable in fabric (fine), texture, shape, and decorations to Miri ware in Kech-Makran II (Figure 5). This is especially the case of one rim fragment (Figure 5: no. 1) which has clear parallels in this region.

#### *Site 26212*

The next site recorded by this survey, site 26212, is located ca. 12.5 km. further west of, and in the same intermontane system as, site 26349. This site is in a north-south oriented valley whose seasonal river merges with the main stream of the Sarbaz River ca. 11.5 km. to the south-south-east. It spreads

over 1 ha. and has ca. 3 m. high archaeological deposits to the maximum (Figure 6). Its surface ceramics connect to Kech-Makran Late IIIa and IIIb ceramics and similar, contemporary materials in south-eastern Iran. They include bowls with the above-mentioned painted friezes filled with triangles with curved sides (Figure 5: nos. 9, 16). An exterior painted motif on two ceramics, possibly a large triangle filled with a hourglass (Figure 5: nos. 8, 10), is reminiscent of motifs recorded on Late Shahi-Tump ware in Kech-Makran<sup>xxvi</sup> and related fine, painted ceramics in Tepe Yahya IVC, Shahr-i Sokhta I, and Tepe Bampur III.<sup>xxvii</sup> Bowls with parallel horizontal lines/bands painted on the exterior rim surface and lip (Figure 5: nos. 6-7), compositions made of concentric garlands (Figure 5: no. 17), hatched lozenges (Figure 5: nos. 11, 13, 18), and what appears to be a portion of a swastika motif (Figure 5: no. 14) are all compatible with materials relating to Kech-Makran Late IIIa-IIIb and their parallels in contemporary contexts in south-eastern Iran. Parallels for vessels with painted lines are for instance observed in Tepe Bampur II-III, Kech-Makran IIIb, and at Chegerdak.<sup>xxviii</sup> They are also observed in Kech-Makran IIIc.<sup>xxix</sup> The swastika motif is characteristic of Kech-Makran Late IIIa Late Shahi-Tump ware and is also recorded in south-eastern Iran such as in Tepe Yahya IVC and particularly in Shahr-i Sokhta I.<sup>xxx</sup> Compositions made of concentric garlands are also in Kech-Makran Late IIIa-IIIb.<sup>xxxi</sup> The rest of the fine, painted sherds from site 26212 are compatible in their textures and decorations with this chrono-cultural affiliation as is the fragment of Basket ware collected at this site (Figure 5: no. 19). This type of ceramic product, moulded inside a basket, is recorded from the fifth to the third millennia BCE in the Indo-Iranian Borderlands, including in Kech-Makran IIIa-IIIb.<sup>xxxii</sup> One sherd (Figure 5: no. 5) has a painted decoration on its exterior surface that contrasts with these materials but does not contradict a chronological association with Kech-Makran Late IIIa-IIIb. We have observed similar decoration on material from south-eastern Iran, although we could not find published parallels for it.

#### *Site 26232*

Less than eight km. south-south-west of site 26212 is site 26232, the northernmost site recorded by this survey in the Sarbaz Valley. Site 26232 is ca. 3 ha. with ca. 1 m. thick archaeological deposits relative to ground level. Like site 26212, its surface ceramics mostly relate to Kech-Makran Late IIIa-IIIb materials and their parallels in south-eastern Iran, although part of it are types of forms that are also observed in Kech-Makran Early IIIa, and even back in Kech-Makran II. It therefore remains possible that deposits dating to these earlier periods are present at this site. Among the typical Kech-Makran Late IIIa-IIIb materials are ceramics with friezes filled with palm motifs (Figure 5: no. 20), with friezes filled with triangles with curved sides (Figure 5: nos. 22, 31, 33), with parallel lines/bands (Figure 5: no. 32), and with what seems to be a triangle filled with an hourglass (Figure 5: no. 30). An exterior rim frieze filled with what appears to be a hatched lozenge, observed on a bowl (Figure 5: no. 21), is a type of decorative composition also recorded within Kech-Makran IIIb ceramic assemblage,<sup>xxxiii</sup> as is an interior rim frieze filled with hatched garlands that decorates another ceramic (Figure 5: no. 24).<sup>xxxiv</sup> Hole-mouth jar fragments collected at site 26232 (Figure 5: nos. 26-28) also have parallels in these periods, although these exemplars rather connect to Kech-Makran IIIa (Early and Late), or even Kech-Makran II, than Kech-Makran IIIb.<sup>xxxv</sup> Similar shapes, which have parallels in Kech-Makran, are also reported from the Bampur Valley.<sup>xxxvi</sup>

[Figure 5]

[Figure 6]

#### *Site 26475*

Ca. 1.5 km. further south, site 26475 is ca. 0.5 ha and has less than one-meter thick archaeological deposits. The material collected at this site consists of only three sherds and three lithics, and the ceramics are not diagnostic. Both these ceramics and the lithics however are not incompatible with a dating of this site to the Chalcolithic and/or Early Bronze Age (Figure 7: nos. 1-4).



#### *Site 26491*

Less than one km. east, site 26491 is also a small site of ca. 0.25 ha., with ca. 0.50 m. thick archaeological remains. Likewise site 26475, very few artefacts were collected at this site, and our view that it possibly was occupied during the Chalcolithic and/or Bronze Age periods is based on a handful of sherds and one black lithic (Figure 7: nos. 5-7).

#### *Site 26521*

Site 26521, slightly over one km. south-south-east of site 26491, is larger, measuring 2 ha. The archaeological remains at this site are estimated to be ca. 1 m. thick. A portion of the site is today occupied by a graveyard used by nomads. This site yielded a little bit more numerous and more diagnostic artefacts. These include fine, painted ceramic fragments relating to Kech-Makran Periods II to IIIb. Kech-Makran II is represented by a ring-base fragment decorated on its exterior surface with two painted lines/bands perpendicular to the ring and to each other and crossing each other at the base's centre. Two shorter lines/bands are painted on the lower body, perpendicularly to the lines/bands painted on the base, just above the junction of these lines/bands with the ring (Figure 7: no. 18). This type of composition is extremely common on Miri ware in Kech-Makran during Period II.<sup>xxxvii</sup> Two sherds with hatched hourglass motifs painted on their exterior surfaces also are reminiscent of Miri ware, although this type of motif is also observed in Kech-Makran IIIb (Figure 7: nos. 15-16). One bowl fragment has an interior painted frieze filled with solid black triangles pointing down (Figure 7: no. 17), a composition that resembles decorations of Chalcolithic bowls collected in the Bampur Valley.<sup>xxxviii</sup> Lastly, two hole-mouth jar fragments (Figure 7: nos. 19-20), likewise the above-mentioned examples from site 26232 (Figure 5: nos. 26-28), also have parallels in Kech-Makran II as well as in Chalcolithic assemblages collected in the Bampur Valley. Although it is important to note again that this type of form continues into Periods IIIa and IIIb in Kech-Makran, these two fragments seem more consistent with Kech-Makran II-IIIa materials. Kech-Makran Early IIIa is represented by one bowl rim fragment (Figure 7: no. 14). This sherd has an exterior painted frieze filled with slanted hatches, which is typical of Early Shahi-Tump ware.<sup>xxxix</sup> Its profile is not in contradiction with this comparison. Four sherds connect to Kech-Makran Late IIIa-IIIb and to ceramics described above. One is a bowl with an exterior painted frieze filled with triangles with curved sides (Figure 7: no. 10); two are bowls with exterior painted lines parallel to the rim (Figure 7: nos. 11-12); and one is a fragment with a painted palm motif (Figure 7: no. 13). Lastly, two lithics were collected at site 26521. They are of the same red chert as those found at site 26475 (Figure 7: nos. 21-22).

#### *Site 26363*

Around 1.8 km. east of site 26521, site 26363 is a small site of ca. 0.25 ha. with between ca. 1.5 and 2 m. thick archaeological deposits. The dating of this site is unclear, and the few ceramic fragments collected on its surface include medieval material. Nonetheless, lithics were collected too, as well as a small rim fragment of a fine grey bowl decorated with painted lines/bands parallel to the rim (Figure 7: no. 23). As noted above, this type of ceramic with a fine fabric and painted decoration is reminiscent of ceramics from Kech-Makran IIIb-IIIc and their parallels recorded in south-eastern Iran. The lithics are of the same red chert as those collected at sites 26475 and 26521.

#### *Site 26219*

Site 26219 is a little over 4.6 km. west of site 26475, outside of the Sarbaz Valley. It is also a small site, of ca. 0.15 ha. with ca. 0.5 m. thick archaeological remains, and yielded a few ceramics (Figure 7: nos. 27-30). These are not clear diagnostics but are compatible with Miri ware in Kech-Makran II, or more generally speaking to the Chalcolithic materials observed from the Bampur Valley to Kech-Makran. This is especially the case of a bowl (Figure 7: no. 29) and a hole-mouth jar (Figure 7: no. 30).

#### *Site 26227*

Site 26227 is located ca. 14.5 km. south of the above-discussed series of sites in the Sarbaz Valley and less than three km. west of this valley in a different watercourse that eventually merges with it a few kilometres further to the south-east. This site is a very small archaeological area of ca. 0.09 ha. by ca.

0.3 m. The very limited materials collected at this site consist of plain and painted ceramics (Figure 7: nos. 8-9). These may date to the Chalcolithic and/or Bronze Age periods, although we are lacking clear diagnostics to confirm this.

[Figure 7]

### ***Zone 3: Pishin Area and Keshari Plain***

Zone 3 starts with site 26519, located in the town of Pishin, ca. 36 km. south-east of site 26227. Seven more sites are in the Keshari Plain, slightly more than 16 km. south-west of site 26519, and one additional site, site 26477, is located ca. 13 km. south of this plain. A glimpse at Table 1 shows that, on average, sites in Zone 3 are smaller but have archaeological deposits almost two and a half times thicker than those in Zone 2.

#### *Site 26519*

Site 26519 is a mound measuring ca. 0.25 ha. by ca. 6 m., topped by a medieval fort (Figure 6). It lies in the immediate vicinity of houses in the southern part of a sedimentary plain, an area that is today occupied by several towns. The material collected at the surface of this site includes ceramics connected to Kech-Makran Late IIIa-IIIb as well as types observed in Kech-Makran IIIc. Kech-Makran Late IIIa-IIIb-related ceramics include a fine bowl with an interior painted frieze made of garland motifs (Figure 8: no. 4) and one sherd with a palm motif (Figure 8: no. 12), two types of decoration discussed above. Other bowls with horizontal parallel lines or other types of motifs also are compatible with Kech-Makran IIIb assemblage (Figure 8: nos. 1-3, 5-6). The profile of one bowl, with a slight carination on the upper part of its body (Figure 8: no. 2), is reminiscent of profiles that appear during this period too.<sup>xi</sup> Alternatively, a plain red, carinated bowl with a marked carination below the rim (Figure 8: no. 7) parallels ceramics more typical of Kech-Makran IIIc and Tepe Bampur VI.<sup>xii</sup> A grey ware with a ridge and painted decoration (Figure 8: no. 13) is compatible with both Kech-Makran Periods IIIb and IIIc.<sup>xiii</sup> Ridge and painted ceramics dating to the third millennium BCE are also reported from Chegerdak and Tepe Bampur II-VI as well as Konar Sandal South in Kerman.<sup>xiii</sup> A grey rim sherd with a horizontal wavy line painted on its interior surface (Figure 8: no. 8) also is reminiscent of ridge ceramics from these periods, perhaps more of Kech-Makran IIIb material. Two hole-mouth jar fragments were collected (Figure 8: nos. 9-10). Again, as noted above, such ceramic shape is recorded from Kech-Makran II to IIIb. In this case, however, one of them (Figure 8: no. 9), with its black painted decoration on a red slip, loosely recalls red-slipped or red ceramics usually found at sites relating to the Indus Civilization, as well as ceramics recorded in Kerman during the third millennium BCE such as in Tepe Yahya IVB and at Konar Sandal South.<sup>xiv</sup> Lastly, one sherd with a painted horned animal (Figure 8: no. 11) also resembles Kech-Makran IIIb material, particularly in the way the eye of this animal is represented.<sup>xiv</sup>

#### *Site 26496*

Site 26496 is located ca. 16 km. south-west of site 26519. It is a ca. 0.06 ha. archaeological area with ca. 0.5 m. thick archaeological deposits. The material collected at this site, which consists of plain and painted ceramics, is not as diagnostic as that of site 26519 but looks like Chalcolithic and/or Bronze Age material (Figure 8: nos. 14-20). The fine fabric, fabrication marks (interspersed strokes perpendicular to the rim observed on the exterior surfaces of several sherds: Figure 8: nos. 14, 20), shapes, and decoration (painted line on the lip) of these vessel fragments lead us to believe, with reservations, that they relate more specifically to Miri ware in Kech-Makran II.

[Figure 8]

#### *Site 25892*

Around 2.3 km. north-west of site 26496 is site 25892. This site measures ca. 3 ha. and has ca. 3 m. thick archaeological deposits (Figure 6). Its surface material includes many ceramics, lithics, and stone vessel fragments. The ceramic shapes and profiles have clear connections to Miri ware in Kech-

Makran II as well as to Chalcolithic materials relating to this ware collected in the Bampur Valley. This is true for the necked-jars (Figure 9: nos. 1-4), hole-mouth jars (Figure 9: nos. 5-9), and the various types of bowls recorded including bowls with concave walls and inverted rims (Figure 9: nos. 10-14), bowls with concave and everted walls (Figure 9: nos. 15-19), and bowls with everted and slightly convex walls (Figure 9: nos. 20-22). The painted decorations on these ceramics and on additional sherds from site 25892 (Figure 9: nos. 26-29, 31-33) also have parallels with, or are close to, those observed during Kech-Makran II. These include: exterior decorations made of triangles on necked-jars (Figure 9: no. 1); exterior friezes of hatched triangles or hourglasses rotated 90 degrees on hole-mouth jars (Figure 9: nos. 5, 8); interior bands filled with (a) wavy line(s) on bowls (Figure 9: nos. 10, 29); interior chessboard pattern on bowls (Figure 9: no. 11); interior bands filled with hourglasses and/or lozenges on bowls (Figure 9: no. 13); interior, vertical, parallel straight and wavy lines departing from the rim, including painted red examples, on bowls (Figure 9: no. 14); friezes of crosshatched triangles on the interior rim surface (Figure 9: no. 18); cross motif made of hatched triangles joined by one of their tips (Figure 9: no. 19); and interior decorations made of hatched or crosshatched rectangles (Figure 9: nos. 23, 33).<sup>xlvi</sup> Some examples, however, while being compatible, do not seem to have been recorded so far in Kech-Makran such as Figure 9: nos. 16 and 25. The hole-mouth jars (Figure 9: nos. 5-9), while being connected to Kech-Makran, also have clear parallels in the Bampur Valley,<sup>xlvii</sup> and it is important to note again that ceramics relating to Miri ware are recorded in this valley. One should also note that one bowl decorated with an interior frieze of hatched triangles (Figure 9: no. 15) is reminiscent of ceramics common in the Bampur Valley, ceramics that are not relating to Miri ware and have not been observed beyond this valley.<sup>xlviii</sup> Lastly, several sherds from site 25892 have holes which were drilled to repair the ceramics these sherds used to belong to (Figure 9: no. 30). This practice is also current during Period II in Kech-Makran.

[Figure 9]

Stone industry was recovered from site 25892's surface. It includes a complete alabaster (?) vessel as well as fragments of alabaster (?) and chlorite/steatite (?) vessels (Figure 10: nos. 1-6). Stone vessels are ubiquitous on the south-eastern Iranian Plateau and found in different protohistorical and historical periods, including in Kech-Makran during Period II, which is consistent with the above-described ceramics. Lithics were also found. They mostly consist of blades in the same red chert as that reported above (Figure 10: nos. 7-18) and include one drill (Figure 10: no. 7).

[Figure 10]

#### *Site 26527*

Site 26527 is ca. 1.5 km. distant to the south-west from site 25892. It measures ca. 0.3 ha. and has ca. 1 m. thick archaeological deposits. Much less abundant than at that site, the artefacts collected on the surface of site 26527—which consists of plain ceramic fragments and fragments with traces of paint (Figure 8: nos. 21-25), including two bowls; lithics (Figure 8: nos. 26-28); and one incised green stone object (Figure 8: no. 29)—possibly date to the Chalcolithic and/or Bronze Age period(s). At a minimum, the fabrics, textures, and colours of the sherds as well as the lithics, which include blades and one drill in a red chert similar to those observed at site 25892 and in Zone 2 (Figure 8: no. 28), corroborate, or do not contradict, this hypothesis and are even more specifically reminiscent of the Chalcolithic material collected at site 25892. We however are lacking clear diagnostics to be entirely positive.

#### *Site 25887*

Less than 0.7 km. south-west of site 26527, site 25887 is a small mound of ca. 0.25 ha. and ca. 4 m. in height (Figure 6). The ceramics collected at this site include clear equivalents of fine, painted Early Shahi-Tump ware, best represented by the funerary deposits dating to Kech-Makran Early IIIa excavated at Shahi-Tump and Miri Qalat (Figure 11: nos. 1-19). Early Shahi-Tump ware-related material at site 25887 includes typical goblets or bowls whose decorations consist of parallel broken

lines on the exterior surface and paint drips on the interior rim surface (Figure 11: nos. 3-4, 12, 15).<sup>xlix</sup> The compositions made of parallel slanted lines/bands recorded at this site (Figure 11: nos. 5, 11) also are part of Kech-Makran IIIa's repertoire, where they are inside triangles put one on top of, or next to, the other and alternatively have opposite directions. Typical of Kech-Makran Early IIIa are also friezes filled with hatches painted on the exterior rim surface of bowls (Figure 11: nos. 7-8, 13-14).<sup>l</sup> The profiles of the bowls collected at site 25887 also are similar to those of Early Shahi-Tump ware (Figure 11: nos. 6-9) as are their interior painted decorations, particularly nos. 8-10, 16-17 on Figure 11.<sup>li</sup> This site yielded fragments of large hole-mouth jars (Figure 11: nos. 18-19), a form common during Period IIIa in Kech-Makran.<sup>lii</sup>

#### *Site 25888*

Site 25888 is less than 100 m. distant from site 25887 to the north-west, separated from this site by agricultural fields, and these two sites are certainly in reality part of a single site which has been partly wiped out in its centre by these agricultural works (Figure 6). Like site 25887, its surface material relates to Early Shahi-Tump ware in Kech-Makran Early IIIa (Figure 11: nos. 20-36). Among the diagnostics of this material are fine bowls with friezes filled with parallel hatches or friezes or panels filled with slanted lines/bands inside triangles (Figure 11: nos. 20-22, 25-27), decorations made with parallel wavy lines (Figure 11: no. 23), like at site 25887 (Figure 11: no. 8), and large hole-mouth jar fragments (Figure 11: nos. 24, 29-30). The decoration of one sherd (Figure 11: no. 28), on the other hand, does not have evident parallels in Kech-Makran, although it is compatible with Early Shahi-Tump ware. Also characteristic of Kech-Makran Early IIIa are hollow-footed goblets (Figure 11: nos. 31-33). Such ceramics were found in large amounts in funerary deposits at Shahi-Tump and Miri Qalat<sup>liii</sup> and compare to vessels labelled Aliabad ware in south-eastern Iran. Aliabad ware is reported from Kerman to the Bampur Valley and chronologically corresponds to Kech-Makran II and Early IIIa.<sup>liv</sup> A few lithics were collected (Figure 11: nos. 34-36). They are of the same red chert as that observed at the other sites in this survey and include small blades, also likewise these sites.

#### *Site 26497*

Site 26497 is less than one km. north-west of site 25888. It is a ca. 0.09 ha. by ca. 1 m. archaeological area which yielded very little for archaeological artefacts. Out interpretation of these artefacts is the same as those from site 25527: the aspect of the ceramics, one rim profile, and the lithics from this site, which are of the same above-mentioned red chert (Figure 8: nos. 30-33), appear to date to the Chalcolithic period. This dating makes sense also given the proximity of sites relating to Kech-Makran II-IIIa, but we are lacking clear diagnostics to be completely positive.

#### *Site 26200*

Site 26200 is only ca. 0.4 km. south-south-west of site 26497. This ca. 0.7 ha. site has ca. 3 m. high visible archaeological deposits including remains of quadrangular stone architecture. Ceramics and one red lithic were collected on its surface (Figure 8: nos. 34-40). Unlike sites 26527 and 26497, the ceramics include rim fragments and one vessel with a complete profile, but it still remains difficult to decide whether they date to the Chalcolithic or the Bronze Age periods, although the former possibility seems more likely.

#### *Site 26477*

Site 26477 is ca. 13 km. south of site 26200 and around six km. east of Sarbaz Valley. It measures ca. 0.09 ha. by ca. 0.5 m. The profiles and painted decorations of its surface ceramics relate to Kech-Makran IIIb, Late Period IIIa to some extent, and their parallels in south-eastern Iran such as at Chegerdak and Tepe Bampur. We again observe fine bowls with parallel lines painted on their exterior surfaces (Figure 11: nos. 38, 40-42, 48-49), and other hatched and crosshatched motifs (Figure 11: nos. 46-47) are compatible with such material.<sup>lv</sup> The hole-mouth jars from site 26477 (Figure 11: nos. 44-45) are consistent with this association too. One base fragment seems to bear a swastika motif (Figure 11: no. 43), a motif that, again, appears on Late Shahi-Tump ware during Late Period IIIa in Kech-Makran and continues into Period IIIb. Another one seems to display a fish motif, represented

with a hatched body (Figure 11: no. 39). Although we are not certain that this interpretation is correct, it should be noted that this type of motif is recorded on Kech-Makran IIIb ceramics, as well as on Period IIIc material. We however do not see in that repertoire representations identical to the one from site 26477.<sup>lvi</sup> There is also one ceramic for which we do not find any clear parallels (Figure 11: no. 37), although its fabric, texture, profile, and type of decoration are consistent with Kech-Makran Late IIIa-IIIb material. Lastly, one lithic was collected on the surface of site 26477; it is of the same red chert as that commonly observed in the surveyed area (Figure 11: no. 50).

[Figure 11]

## Synthesis and Conclusions

This survey has evidenced the presence of Late Chalcolithic and Early Bronze occupations in three sectors located in-between the Bampur Valley and Kech-Makran. This result is not surprising in view of the numerous sites dating to these periods recorded in both these two areas and of the third millennium BCE graveyard found at Keshik, just ca. 85 km. west of the Sarbaz Valley. It is neither surprising that the surface material collected in this survey relates to both regions and particularly to Kech-Makran as far as the Late Chalcolithic period is concerned. The Early Bronze Age assemblages certainly also closely relate to Kech-Makran but are overall included within the same stylistic horizon that characterizes and encompasses both eastern Jazmurian and Kech-Makran at that time, whereas differences are observed between these two regions in their material cultures during the Chalcolithic period. It is also important to note that this Late Chalcolithic and Early Bronze Age occupations do not materialize by just isolated finds or scatter sites, but also by sites with relatively thick archaeological deposits, particularly in Zone 3. These thicker sites do not seem to reflect transient or ephemeral settlements and are rather comparable in this respect and to some degree to a site like Shahi-Tump in the Kech Valley as far as Kech-Makran II-IIIa are concerned.

Several additional, more detailed observations can be made on these results. A first observation is that no ceramics relating to the mid-late-fifth and early fourth millennia BCE Black-on-buff ware and Black-on-red ware, typical of Kerman, are recorded in this survey. Such material is not recorded in Kech-Makran, and the Bampur Valley still appears as the south-easternmost limit of its distribution.<sup>lvii</sup> No fifth millennium BCE Early and Middle Chalcolithic, or seven/six millennia BCE Neolithic, material has been found, whereas settlements dating to these periods are observed in Kerman at Tepe Yahya, in the Bam region, and in the Esfandagheh Valley.<sup>lviii</sup> It is important to note that excavation at Miri Qalat and Shahi-Tump in the Kech Valley revealed that during the mid-late fifth millennium BCE these two sites were occupied by Late Neolithic communities with no ceramics, whereas the first ceramics, Miri ware, mostly appear in this region during the fourth millennium BCE.<sup>lix</sup> It is possible that similar situations existed at that time on the Iranian side, perhaps including in the area discussed here, at the same time as other communities in Kerman and Jazmurian were producing and/or using painted vessels and had been doing so for hundreds of years. A possibility also remains that pottery Neolithic sites conform to those recorded in Kerman are simply buried in the area considered in this article and cannot be detected from just surface survey.

Secondly, ceramics relating to Kech-Makran II Miri ware are observed in the Bampur Valley,<sup>lx</sup> but they are in that area associated with fourth millennium BCE Aliabad ware-related vessels as well as other types of Chalcolithic painted ceramics characteristic of that valley. In the present surveyed area, we see no Aliabad ware on sites relating to Kech-Makran II, and the assemblages of these sites are more conform to those in Kech-Makran than those in the Bampur Valley. In other words, although the boundaries of Miri ware extend to the Bampur Valley, we observe tighter connections in the material culture between the present surveyed area and Kech-Makran. This does not necessarily imply an east-to-west direction of influences or distribution whose intensity would decrease in the west; it is entirely possible that this style emerges as a result of western influences from Kerman/Jazmurian and evolved and became more localized within the south-easternmost territories of the Iranian Plateau, at

least between Kech-Makran and the Sarbaz Valley. Only future research will help clarify this aspect. We also had reported a few sherds relating to Early Shahi-Tump ware in the Bampur Valley and possibly in the lower Halil Rud,<sup>lxi</sup> but records of such material remain rare at present in these areas. It is more clearly and more abundantly evidenced in the present surveyed area, which shows, as far as material culture is concerned, continuation during Early Kech-Makran IIIa of the tight relationships observed during Kech-Makran II between the Sarbaz Valley and Kech-Makran. Additionally, it is worth mentioning that, like in Kech-Makran, Aliabad ware-related typical hollow-footed goblets are associated with Early Shahi-Tump ware at one site in the Keshari Plain. Since these types of goblets are most common in Kerman, it seems rational to see their presence in this plain and Kech-Makran as the result of influences and possibly diffusions from that province. This hypothesis nonetheless certainly needs confirmation through future research.

Thirdly, we have not observed in the present survey assemblages any material relating to the Uruk and Proto-Elamite cultures dating to between the mid-late fourth and early third millennia BCE, although these are represented in Kerman and Sistan at Tepe Yahya, Mahtoutabad, and Shahr-i Sokhta,<sup>lxii</sup> as well as by a handful of sherds that resemble beveled-rim bowls at Miri Qalat.<sup>lxiii</sup> This result tends to confirm that, like the Bampur Valley, the regions south-east of it seem to be mostly outside of the boundaries of these western cultures, or cultural phenomena, as they are outside of the boundaries of the south-western Iranian Bakun-related materials and Lapui ware during the fifth and fourth millennia BCE. We also have not observed in this survey any cultural material relating to eastern Pakistani Baluchestan, although such material, some specific ceramic styles, are recorded in Kech-Makran during Period IIIa.<sup>lxiv</sup>

Fourthly, certain ceramic types typical of Kech-Makran Late IIIa continue into Period IIIb, and, similarly, certain ceramic types in Kech-Makran IIIb continue into Period IIIc. Consequently, we have emphasized here that it is not always possible to determine precisely, based on limited surface material, whether a site was occupied at times contemporary with Kech-Makran Late IIIa, IIIb, and/or IIIc. This difficulty is also due to the fact that Kech-Makran Late IIIa and IIIb ceramic assemblages are defined essentially on the basis of surface material in Kech-Makran, stylistic comparisons with assemblages in south-eastern Iran, but virtually no excavated archaeological deposits dating to these periods.<sup>lxv</sup> From a general perspective, it seems that most of the Early Bronze Age surface material collected in this survey may be more securely assigned to Kech-Makran IIIb; at a minimum, it seems that Late IIIa and IIIc periods are mostly represented by ambivalent forms and/or motifs that are recorded in these periods as well as in Kech-Makran IIIb. Regardless, whether or not “true” Kech-Makran Late IIIa is represented in this collection, one assumes that ceramics relating to this period are likely to be present in the Sarbaz Valley area since they are recorded in the Bampur Valley and in Kech-Makran<sup>lxvi</sup> and as far as at Tepe Yahya and Shahr-i Sokhta, where they were exported.<sup>lxvii</sup> The same is true for Kech-Makran IIIc ceramics which have clear equivalents in the Bampur Valley.<sup>lxviii</sup>

After Late Period IIIa, which is contemporary with Tepe Yahya IVC-Proto-Elamite and Shahr-i Sokhta I, the Kech-Makran region during Period IIIb sees an important increase in sites quantity compared to the previous period. This is especially the case in the Dasht Plain, where 47 Period IIIb sites are reported, including pottery workshops.<sup>lxix</sup> It seems rational to hypothesize that, in addition to the sites discovered by the present survey, more Kech-Makran IIIb-related sites remain to be discovered directly west of the Dasht Plain, such as in the Dashtyari Plain located just beyond the Iran-Pakistan border. More generally speaking, more sites, and not only sites dating to Kech-Makran IIIb, certainly remain to be found, including in the surveyed area discussed in this article. For instance, we suspect that some are buried below the alluvial deposits in the sedimentary plain around Pishin in Zone 3.

As far as its ceramics are concerned, Kech-Makran IIIb as well as Kech-Makran IIIc appear so similar to Tepe Bampur and many additional sites in the Bampur Valley<sup>lxx</sup> that both regions are considered to be part of the same cultural sphere.<sup>lxxi</sup> This sphere certainly may be extended further west and north-

west to include at least Chegerdak and Spidej. Data is then less abundant further west in western Jazmurian compared to eastern Jazmurian, although one may mention that materials similar to those typical of the east are reported in this area from Takkul.<sup>lxxii</sup> Relationships with Kerman as observed at Tepe Yahya and Konar Sandal South further to the north-west are quantitatively less and limited to certain categories of vessels. In contrast, more fine grey, painted ceramics relating to the Bampur Valley and Kech-Makran were recovered at Shahr-i Sokhta, and comparative composition analyses conducted on samples from these three areas have shown that this type of ceramic was produced in, and exchanged between, the three of them.<sup>lxxiii</sup> These ceramic relationships within the south-eastern Iranian Plateau are noted in the previous period corresponding to Kech-Makran Late IIIa, but new ones appear with Kech-Makran IIIb. It is indeed during this period that ceramics stylistically relating to eastern Jazmurian and Kech-Makran are recorded for the first time in the Oman Peninsula, and composition analysis has demonstrated that most of the analyzed samples from that region are exports from Kech-Makran.<sup>lxxiv</sup> Between the more open Dasht Plain in Kech-Makran, probably the Dashtyari Plain immediately west of this plain, and the Bampur Valley, the mountainous, seemingly less accessible territories east of the Jazmurian including those surveyed here certainly had a role in connecting these areas and both maintaining their cultural cohesion and perhaps participating in these greater, interregional exchange networks observed at that time. The petroglyphs reported from the Kajou Valley (ca. 50 km. west of the Sarbaz Valley), whose oldest images are dated to the Late Chalcolithic/Early Bronze Age periods,<sup>lxxv</sup> the graveyard at Keshik (ca. 85 km. west of the Sarbaz Valley), with cist graves that contain third millennium BCE materials relating to Tepe Bampur,<sup>lxxvi</sup> and Fanuch (ca. 190 km. distant), are additional vestiges of this period along the routes that connected Kech-Makran to the Jazmurian and beyond.

Lastly, it is worth mentioning that this survey did not identify any materials relating to the Indus Civilization, although the Indus-related site of Sutkagen-Dor is located only ca. 60 km. south-east of the Keshari Plain, and the Indus settlement at Miri Qalat is ca. 140 km. east of this plain. To the best of our knowledge, these two sites remain the westernmost Indus settlements recorded at present. This situation reminds us of that observed with the above-mentioned ceramic styles relating to eastern Pakistani Baluchestan that are present in Kech-Makran during Period IIIa, but apparently not further west, at a minimum not in the assemblages collected in the surveyed area discussed here. This survey did not find either any late third-early second millennia BCE sites with materials connected to Shahdad in Kerman and to the Oxus Civilization (a.k.a. Bactria-Margiana Archaeological Complex). Such discovery would have not been surprising since such materials and artefacts contemporary to them are not only reported from Kerman in Tepe Yahya IVA and the Halil Rud Basin including at Konar Sandal North and Konar Sandal South, and from Iranian and Afghan Sistan, but also from Khurab in the Bampur Valley.<sup>lxxvii</sup> And, in addition to Khurab, miniature stone columns from Keshik are thought to be compatible with these chrono-cultural associations, as are the material assemblage, imprints on ceramics in particular, from Graveyard B at Spidej.<sup>lxxviii</sup> The current absence of Indus-related and Oxus-related assemblages in the Sarbaz Valley and adjacent areas does not preclude the possibility that such assemblages are recovered in the future in these remote territories of south-eastern Iran.

## **Acknowledgements**

We would like to thank M. Hasanali Sharaki, Director of the Culture Heritage, Handicraft, and Tourism Organization of Sistan and Baluchestan province and M. Adnan Hosseini, Director of the Culture Heritage, Handicraft, and Tourism Organization of Sarbaz County, for providing us with permission and support to conduct this field research. We also would like to thank the reviewers of this article for their thoughtful comments.



## Bibliography

- Amiet, P. and M. Tosi. "Phase 10 at Shahr-i Sokhta. Excavations in Square XDV and the Late 4<sup>th</sup> Millennium B.C. Assemblage of Seistan." *East and West* 28, nos. 1–4 (1978): 9–32.
- Beale, T.W. and Lamberg-Karlovsky, C.C. *Excavations at Tepe Yahya, Iran 1967–1975. The Early Periods*, American School of Prehistoric Research Bulletin 38. Cambridge, MA: Peabody Museum of Archaeology and Ethnology, 1986.
- Besenal, R. "The 1992-1993 Field-Seasons at Miri Qalat: New Contributions to the chronology of Protohistoric Settlement in Pakistani Makran." In *South Asian Archaeology, 1993*, edited by A. Parpola and P. Koskikallio, Vol. 1, 81–91. Helsinki: Suomalainen Tiedeakatemia, 1994.
- Besenal, R. "The Chronology of the Ancient Occupation in Makran. Results of the 1994 Season at Miri Qalat, Pakistan Makran." In *South Asian Archaeology, 1995*, edited by R. Allchin and B. Allchin, 199–235. Cambridge: Oxford IBH, 1997.
- Besenal, R. "Entre le Sud-Est iranien et la plaine de l'Indus: le Kech-Makran. Recherches archéologiques sur le peuplement ancien d'une marche des confins indo-iraniens." *Arts Asiatiques* 52 (1997): 5–36.
- Besenal, R. "New Data for the Chronology of the Protohistory of Kech-Makran (Pakistan) from Miri Qalat 1996 and Shahi-Tump 1997 Field-Seasons." In *South Asian Archaeology, 1997*, Serie Orientale Roma 90, edited by M. Taddei and G de Marco, 161–188. Rome: ISIAO, 2000.
- Besenal, R. "Chronology of Protohistoric Kech-Makran." In *South Asian Archaeology, 2001*, edited by C. Jarrige and V. Lefèvre, Vol. 1, 1–9. Paris: ERC, 2005.
- Besenal, R., V. Marcon, C. Buquet, and B. Mutin. "Shahi-Tump: Results of the Last Field-Seasons (2001-2003)." In *South Asian Archaeology, 2003*, edited by U. Franke-Vogt and H.-J. Weisshaar, 49-56. Aachen: Linden Soft, 2005.
- Besenal, R. and Ph. Marquis. "Excavations at Miri Qalat (Pakistani Makran). Results of the First Field Season (1990)." In *South Asian Archaeology, 1991*, edited by A.J. Gail and G.J.R. Mevissen, 31–48. Stuttgart: Franz Steiner Verlag, 1993.
- Besenal, R. and P. Sanlaville, P. "Cartography of Ancient Settlements in Central and Southern Pakistani Makran. New Data." *Mesopotamia* 25 (1990): 79–146.
- de Cardi, B. 1970. "Excavations at Bampur, a Third Millennium Settlement in Persian Baluchistan, 1966." *Anthropological Papers of the American Museum of Natural History* 51, no. 3 (1970): 233–355.
- Cortesi, E., Tosi, M., Lazzari, A., and M. Vidale. "Cultural Relationships Beyond the Iranian Plateau: The Helmand Civilization, Baluchistan and the Indus Valley in the 3<sup>rd</sup> Millennium BCE." *Paléorient* 34, no. 2 (2008): 5–35.
- Dales, G.F. and C.P. Lipo. *Explorations on the Makran Coast, Pakistan. A Search for Paradise*, Contributions of the Archaeological Research Facility 50. Berkeley: University of California, 1992.
- Desse, J., N. Desse-Berset, A. Henry, M. Tengberg, and R. Besenal. "Faune et flore des niveaux profonds de Shahi-Tump (Balochistan, Pakistan): Premiers résultats." *Paléorient* 34, no. 1 (2008): 159–171.
- Desset, F., M. Vidale, and N. Alidadi Soleimani. "Mahtoutabad III (Province of Kerman, Iran): an 'Uruk-related' Material Assemblage in Eastern Iran." *Iran* 51 (2013): 17–54.

Didier, A. *La production céramique du Makran (Pakistan) à l'âge du Bronze Ancien. Contribution à l'étude des peuplements des régions indo-iraniennes*, Mémoires des Missions Archéologiques Françaises en Asie Centrale et en Asie Moyenne 14, Série Indus-Balochistan. Paris: De Boccard, 2013.

Garazhian, O. "Darestan: A Group of Pre-Pottery Neolithic (PPN) Sites in South-Eastern Iran." *Antiquity* Project Gallery 83, no. 319 (2009). <http://www.antiquity.ac.uk/projgall/garazhian319/>.

Heydari, M., H. Fazeli Nashli, E. Cortesi, and M. Vidale. "A Surface Collection at Chegerdak, a Bronze Age Centre in the Jazmurian Casin (South-Eastern Iran)." *Paléorient* 41, no. 2 (2015): 133–155.

Heydari, M., F. Desset, and M. Vidale. "Bronze Age Glyptics of Eastern Jazmurian, Iran." *Paléorient* 44, no. 1 (2018): 133-153.

Hume, G.W. *The Ladizian. An Industry of the Asian Chopper-Chopping Tool Complex in Iranian Baluchistan*. Philadelphia: Dorrance and Company, 1976.

Jarrige, J.-F., A. Didier, and G. Quivron. "Shahr-i Sokhta and the Chronology of the Indo-Iranian Borderlands." *Paléorient* 37, no. 2 (2011): 7–34.

Lamberg-Karlovsky, C. C., and D. Schmandt-Besserat. "An Evaluation of the Bampur, Khurab and Chah Husseini Collections in the Peabody Museum and Relations with Tepe Yahya." In *Mountains and lowlands: Essays in the Archaeology of Greater Mesopotamia*, Bibliotheca Mesopotamica 7, edited by L. Levine and T. C. Young, Jr., 113–134. Malibu: Undena, 1977.

Madjidzadeh, Y. and H. Pittman. "Excavations at Konar Sandal in the Region of Jiroft in the Halil Basin: First Preliminary Report (2002–2008)." *Iran* 46 (2008): 69–103.

Méry, S. *Les céramiques d'Oman et l'Asie moyenne. Une archéologie des échanges à l'Âge du Bronze*, Collection de Recherches Archéologiques Monographies 23. Paris: CNRS ÉDITIONS.

Méry, S., R. Besenval, J.M. Blackman, and A. Didier. "The Origin of the 3<sup>rd</sup> Millennium BC Fine Grey Wares Found in Eastern Arabia: New Evidence from Archaeometry." *Proceedings of the Seminar for Arabian Studies* 42 (2012): 95-104.

Miragliuolo, J. "Non-urban Sites and Mobile Settlement Patterns: A Survey of an Unknown Corner of Baluchistan." PhD diss., The American University, Washington DC, 1979.

Mockler, Major E. "On Ruins in Makran." *Journal of the Royal Geographic Society* 9 (1877): 121–134.

Mortazavi, M. "The Bampur Valley: A New Chronological Development." *Ancient Asia* 1 (2006): 53–61.

Mortazavi, M. and F. Mosapour Negari. "Past and Present: Human – Environment Interaction in the Bampur Valley." *Ancient Asia* 2 (2010): 7–13.

Mutin, B. "La *Basket Ware*. Une production céramique originale de la Protohistoire des confins indo-iraniens." *Paléorient* 32, no. 2 (2006): 175–194.

Mutin, B. "Ceramic Traditions and Interactions on the South-Eastern Iranian Plateau During the Fourth Millennium BC." In *Ancient Iran and Its Neighbours. Local Development and Long-Range Interactions in the Fourth Millennium BC*, The British Institute of Persian Studies, Archaeological Monographs Series 3, edited by C. A. Petrie, 253–275. Oxford: Oxbow Books, 2013.

Mutin, B. "Chrono-cultural Sequence of the Bampur Valley (South-Eastern Iran) During the Chalcolithic Period: A Reevaluation of the Stein Collection at the Peabody Museum, Harvard University." *Iran* 52 (2015): 1–28.

- Mutin, B. *The Proto-Elamite Settlement and Its Neighbors. Tepe Yahya Period IVC*, American School of Prehistoric Research (ASPR) Monograph Series. Oxford: Harvard University, Oxbow Books, 2013.
- Mutin, B. and O. Garazhian. "Bam Archaeological Mission: A New Archaeological Research Programme in Kerman Province, Iran." *Antiquity Project Gallery* 92, no. 363 (2018).
- Mutin, B. and C.C. Lamberg-Karlovsky, forthcoming. "The Relationship between the Oxus Civilization and the Indo-Iranian Borderlands (provisional title)." In *The World of the Oxus Civilization*, edited by B. Lyonnet and N. Dubova.
- Mutin, B., L.D. Minc, C.C. Lamberg-Karlovsky, and M. Tosi. "Regional and Long-Distance Exchange of An Emblematic 'Prestige' Ceramic in the Indo-Iranian Borderlands. Results of Neutron Activation Analysis." *Paléorient* 43, no. 1 (2017): 141–162.
- Mutin, B., H. Moradi, H. Sarhaddi-Dadian, H. Fazeli Nashli, and M. Soltani. "New Discoveries in the Bampur Valley (South-Eastern Iran) and Their Implications for the Understanding of Settlement Pattern in the Indo-Iranian Borderlands During the Chalcolithic Period, Iran." *Iran* 55 no. 2 (2017): 99–119. <http://dx.doi.org/10.1080/05786967.2017.1356004>.
- Pfälzner, P. and N.A. Soleimani. "The ICAR – University of Tübingen South-of-Jiroft Archaeological Survey (SOJAS). Results of the First Season 2015." *Archäologische Mitteilungen aus Iran und Turan* 47 (2017): 105–141.
- Piperno, M. and S. Salvatori. *The Shahr-i Sokhta Graveyard (Sistan, Iran). Excavation Campaigns 1972-1978*, ISIAO Reports and Memoirs New Series 6. Rome: ISIAO, 2007.
- Potts, D.T. and Lamberg-Karlovsky, C.C. *Excavations at Tepe Yahya, Iran 1967–1975. The Third Millennium*, American School of Prehistoric Research Bulletin 45. Cambridge, MA: Peabody Museum of Archaeology and Ethnology, 2001.
- Sajjadi, S. M. S. *Bampur Tepe. The First Season of Excavations at Bampur Tepe*, Archaeological Report Monograph Series 6. Tehran: ICAR, 2005.
- Salvatori, S. and M. Vidale. *Shahr-i Sokhta 1975-1978: Central Quarters Excavations. Preliminary Report*, ISIAO Reports and Memoirs, Series Minor 1. Rome: ISIAO, 1997.
- Sarhaddi, F. "Pictograph and Petroglyphs of Saravan (Sistan-Baluchistan, Iran)." *Ancient Asia* 4, no. 3 (2013): 1–8.
- Shirazi, R. "The Petroglyphs of the Kajou Valley, Makran, Iran: Tang Sar, Dehirak and Deskigan Assemblages." *Paléorient* 42, no. 1 (2016): 185–198.
- Stein, M.A. *An Archaeological Tour in Gedrosia*, Memoirs of the Archaeological Survey of India 43. New Delhi: Government of India Press, 1931.
- Stein, M.A. *Archaeological Reconnaissances in North-Western India and South-Eastern Iran*. London: McMillan, 1937.
- Tosi, M. "A Tomb from Damin and the Problem of the Bampur Sequence in the Third Millennium BC." *East and West* 20, nos. 1–2 (1970): 9–50.
- Wright, R.P. "Technology, Style and Craft Specialization: Spheres of Interaction and Exchange in the Indo-Iranian Borderlands, Third Millennium B.C." PhD diss., Harvard University, Cambridge, MA, 1984.

Wright, R.P. "New Tracks on Ancient Frontiers: Ceramic Technology on the Indo-Iranian Borderlands." In *Archaeological Thought in America*, edited by C.C. Lamberg-Karlovsky, 268–279. Cambridge: Cambridge University Press, 1989.

---

<sup>i</sup> The site of Tepe Bampur in the Bampur Valley is located ca. 140 km from Rask while this town is ca. 160 km distant from the site of Miri Qalat in Kech-Makran.

<sup>ii</sup> Stein, *Archaeological Reconnaissances*.

<sup>iii</sup> de Cardi, "Excavations at Bampur."

<sup>iv</sup> See Tosi, "A Tomb from Damin."

<sup>v</sup> See Heydari, Desset, and Vidale, "Bronze Age Glyptics," 139; Sajjadi, *Bampur Tepe*; Mortazavi, "The Bampur Valley"; Mortazavi and Mosapour Negari, "Past and Present."

<sup>vi</sup> Mutin *et al.*, "New Discoveries."

<sup>vii</sup> Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak"; Heydari, Desset, and Vidale, "Bronze Age Glyptics."

<sup>viii</sup> Sarhaddi, "Pictograph and Petroglyphs of Saravan."

<sup>ix</sup> Hume, *The Ladizian*; Miragliuolo, "Non-urban Sites."

<sup>x</sup> Shirazi, "The Petroglyphs of the Kajou Valley."

<sup>xi</sup> Pfälzner and Soleimani, "The ICAR – University of Tübingen South-of-Jiroft Archaeological Survey."

<sup>xii</sup> Mockler, "On Ruins in Makran"; see Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus," 30.

<sup>xiii</sup> Stein, *An Archaeological Tour in Gedrosia*.

<sup>xiv</sup> Dales and Lipo, *Explorations on the Makran Coast*.

<sup>xv</sup> See Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus", "Chronology of Protohistoric Kech-Makran."

<sup>xvi</sup> See Mutin, "Ceramic Traditions and Interactions", "Chrono-cultural Sequence of the Bampur Valley"; Mutin *et al.*, "New Discoveries"; Mutin, Minc, Lamberg-Karlovsky, and Tosi, "Regional and Long-Distance Exchange."

<sup>xvii</sup> Wright, "Technology, Style and Craft Specialization", "New Tracks on Ancient Frontiers"; Méry, *Les céramiques d'Oman et l'Asie moyenne*; Méry, Besenval, Blackman, and Didier, "The Origin of the 3rd Millennium BC Fine Grey Wares"; see Didier, *La production céramique du Makran*, 251-286.

<sup>xviii</sup> See Didier, *La production céramique du Makran*, 286-288.

<sup>xix</sup> See Mutin *et al.*, "New Discoveries," 113-114.

<sup>xx</sup> See Wright, "Technology, Style and Craft Specialization", "New Tracks on Ancient Frontiers"; Mutin, Minc, Lamberg-Karlovsky, and Tosi, "Regional and Long-Distance Exchange."

<sup>xxi</sup> See de Cardi, "Excavations at Bampur"; Tosi, "A Tomb from Damin"; Lamberg-Karlovsky and Schmandt-Besserat 1977; Didier, *La production céramique du Makran*; Mutin, "Ceramic Traditions and Interactions", *The Proto-Elamite Settlement and Its Neighbors*; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak"; Mutin *et al.*, "New Discoveries."

<sup>xxii</sup> Pfälzner and Soleimani, "The ICAR – University of Tübingen South-of-Jiroft Archaeological Survey," 118 fig. 13.

<sup>xxiii</sup> Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus," 12 fig. 7 no. 1/96/X/22/11; Besenval, "New Data for the Chronology," 172 fig. 11 nos. 1/96/X/135/5, 1/96/IX/123/2; Mutin, "Ceramic Traditions and Interactions," 256 fig. 14.2 nos. 1, 5, 7-8, 10, 20-21.

<sup>xxiv</sup> de Cardi, "Excavations at Bampur," 279 fig. 7 no. 12; 286 fig. 22 nos. 126, 143; 288 fig. 23 nos. 185, 187; 291 fig. 25 nos. 235, 258; 296 fig. 29 no. 290; 298 fig. 30 no. 5, 25-26; 299 fig. 31 no. 63; 300 fig. 32 nos. 5-6; 302 fig. 34 no. 326; 303 fig. 35 no. 355; 304 fig. 36 no. 98; 307 fig. 37 nos. 107-108, 110; 308 fig. 38 nos. 375, 379-380, 382; 317 fig. 43 no. 483; Salvatori and Vidale, *Shahr-i Sokhta 1975-1978*, 143 fig. 188 no. 6; Potts and Lamberg-Karlovsky, *Excavations at Tepe Yahya, Iran 1967-1975. The Third Millennium*, 76 fig. 2.25 D; 148 fig. 5.2 C; 188 fig. 7.7 A, B, C; Madjidzadeh and Pittman, "Excavations at Konar Sandal," 91 fig. 22 lower middle; 92 fig. 23 lower left; 92 fig. 24 lower left; Didier, *La production céramique du Makran*, 95 fig. 64 nos. 9-10; 97 fig. 66 nos. 11-13; 100 fig. 68 nos. 9-10, 15-16; 102 fig. 69 nos. 14-17; 108 fig. 74 nos. 20-21; 109 fig. 75 nos. 7-8; 117 fig. 80 no. 20; 118 fig. 81 no. 3; 119 fig. 82 no. 11; 130 fig. 91 no. 6; 133 fig. 94 no. 9; 185 fig. 152 no. 5; 186 fig. 153 no. 5; 188 fig. 155 no. 13; 196 fig. 162 no. 5; 199 fig. 165 no. 9; 202 fig. 168 no. 4; 205 fig. 171 nos. 8-9; Mutin, "Ceramic Traditions and Interactions," 265 fig. 14.15 nos. 2, 10; Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 355 fig. 3.38 no. 13; 396 fig. 3.99 no. 9; 398 fig. 3.102 nos. 1-5, 7; 405 fig. 3.116 no. 3; 407 fig. 3.119 no. 1; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak," 137 fig. 4 nos. 012, 010; 138 fig. 5 nos. a-b, f; 146 fig. 11 nos. 001, 009.

<sup>xxv</sup> de Cardi, "Excavations at Bampur," 280 fig. 18 nos. 22, 35; 285 fig. 21 no. 108; 286 fig. 22 no. 142, 160; Potts and Lamberg-Karlovsky, *Excavations at Tepe Yahya, Iran 1967-1975. The Third Millennium*, 75 2.23 C; 87 fig. 3.7

---

F, G, H; 101 fig. 3.22 A; Didier, *La production céramique du Makran*, 97 fig. 66 nos. 3-5, 10; 100 fig. 68 nos. 3, 12; 112 fig. 76 nos. 7, 11-12; 117 fig. 80 nos. 6-7; 123 fig. 85 no. 3; 127 fig. 89 no. 6; 130 fig. 91 nos. 2-3; Mutin, "Ceramic Traditions and Interactions," 265 fig. 14.15 nos. 6, 11, 15-16; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak," 137 fig. 4 no. 052b; 139 fig. 6 nos. 014, 058, 056; 142 fig. 8 no. 023; 143 fig. 9 no. 033; 144 fig. 10 nos. 016, 008, 007; 146 fig. 11 no. 026; Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 355 fig. 3.38 nos. 1-5, 9-11, 14; 405 fig. 3.116 no. 3. Comparable friezes are also observed at Shahr-i Sokhta on buff ware from Periods I-II (see Salvatori and Vidale, *Shahr-i Sokhta 1975-1978*, 84 fig. 82 no. 5; 86 fig. 85 no. 4; 92 fig. 96 no. 4; 92 fig. 97 no. 4; 95 fig. 103 no. 4; 96 fig. 105 no. 4; 97 fig. 106 nos. 3, 5; 97 fig. 107 no. 4; 98 fig. 109 no. 2; 99 fig. 110 nos. 3-4; 99 fig. 111 no. 1; 100 fig. 113 no. 3; 101 fig. 114 nos. 4-5) and at Tepe Yahya on buff ware from Period IVC (see Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 358 fig. 3.42 nos. 1-2, 6-7; 359 fig. 3.43 nos. 3, 5, 8, 11, 13, 15-16, 19, 22).

<sup>xxvi</sup> e.g. at Miri Qalat: Besenval, "The Chronology of the Ancient Occupation in Makran," 208 fig. 16, upper right and lower right.

<sup>xxvii</sup> de Cardi, "Excavations at Bampur," 286 fig. 22 no. 141; Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 354 fig. 3.36 nos. 1, 4, 6; 355 fig. 3.38 nos. 6-7, 18, 28; 357 fig. 3.40 no. 3; 358 fig. 3.41 nos. 3-4.

<sup>xxviii</sup> de Cardi, "Excavations at Bampur," 285 fig. 21 no. 100; 286 fig. 22 nos. 143-144, 152; Didier, *La production céramique du Makran*, 97 fig. 66 no. 9, 99 fig. 67 nos. 15, 20; 112 fig. 76; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak," 139 fig. 6 no. 021; 144 fig. 10 nos. 022, 050, 015, 013.

<sup>xxix</sup> Didier, *La production céramique du Makran*, 183 fig. 151 nos. 3, 15-16, 18; 195 fig. 161 no. 19.

<sup>xxx</sup> Mutin, "Ceramic Traditions and Interactions," 265 fig. 14.15 nos. 1, 3-5; Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 88-90; 354 fig. 3.36 no. 10; 355 fig. 3.38 no. 22; 357 fig. 3.40; see Mutin, Minc, Lamberg-Karlovsky, and Tosi, "Regional and Long-Distance Exchange"; see Piperno and Salvatori, *The Shahr-i Sokhta Graveyard*.

<sup>xxxi</sup> Didier, *La production céramique du Makran*, 118 fig. 81 no. 4; 119 fig. 82 no. 2; Mutin, "Ceramic Traditions and Interactions," 165 fig. 14.15 nos. 7-8.

<sup>xxxii</sup> Mutin, "La Basket Ware"; Didier, *La production céramique du Makran*, 83 fig. 37; 152 figs. 114-116; 210 fig. 178; 211 fig. 179.

<sup>xxxiii</sup> Didier, *La production céramique du Makran*, 112 fig. 76 nos. 11, 12, 16.

<sup>xxxiv</sup> Didier, *La production céramique du Makran*, 112 fig. 76 no. 9.

<sup>xxxv</sup> Besenval, "The 1992-1993 Field-Seasons at Miri Qalat," 84 fig. 6.2; Besenval, "The Chronology of the Ancient Occupation in Makran," 203 fig. 7 nos. 1/94/IV/78/5, 1/94/IV/78/3; Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus," 18 fig. 17; Besenval and Sanlaville, "Cartography of Ancient Settlements," 137 fig. K; Mutin, "Ceramic Traditions and Interactions," 256 fig. 14.2 nos. 19-21; 261 fig. 14.9 no. 13; 265 fig. 14.15 nos. 12-15; Didier, *La production céramique du Makran*, 123 fig. 85.

<sup>xxxvi</sup> Mutin *et al.*, "New Discoveries," 114 fig. 8 nos. 4-7.

<sup>xxxvii</sup> e.g. Besenval and Marquis, "Excavations at Miri Qalat," 38 fig. 3a; Besenval, "The Chronology of the Ancient Occupation in Makran," 202 fig. 6; Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus," 112 fig. 8; Mutin, "Ceramic Traditions and Interactions," 256 fig. 14.2 no. 15.

<sup>xxxviii</sup> Mutin *et al.*, "New Discoveries," 109 fig. 5 no. 10.

<sup>xxxix</sup> e.g. Besenval and Sanlaville, "Cartography of Ancient Settlements," 136 fig. H; Mutin, "Ceramic Traditions and Interactions," 260 fig. 14.9 nos. 1, 3-4.

<sup>xl</sup> Didier, *La production céramique du Makran*, 99 fig. 67 nos. 1-11, 22-24.

<sup>xli</sup> de Cardi, "Excavations at Bampur," 317 fig. 43 nos. 434-439; Didier, *La production céramique du Makran*, 183 fig. 151 nos. 13-18.

<sup>xlii</sup> Didier, *La production céramique du Makran*, 145-148 figs. 105-108; 201-205 figs. 167-171.

<sup>xliiii</sup> de Cardi, "Excavations at Bampur," 282 fig. 19 nos. 60-61, 63; 283 fig. 20 nos. 64-68, 71, 85; 288 fig. 23 nos. 173-175, 191; 290 fig. 24 no. 224; 296 fig. 29 nos. 318-320; 299 fig. 31 no. 74; 308 fig. 38 nos. 379, 383; 311 fig. 39 nos. 389b-391; 312 fig. 40 nos. 402, 405-406; 313 fig. 41 nos. 411-416, 420; Madjidzadeh and Pittman, "Excavations at Konar Sandal," 91 fig. 22 lower right; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak," 138 fig. 5 h; 147 fig. 12 no. 034; 150 fig. 15 no. 042.

<sup>xliv</sup> Potts and Lamberg-Karlovsky, *Excavations at Tepe Yahya, Iran 1967-1975. The Third Millennium*, 95 fig. 3.15; 131 fig. 4.28; 183-184 figs. 7.1-7.2; 188 fig. 7.7; Madjidzadeh and Pittman, "Excavations at Konar Sandal," 91-92 figs. 22-23; Mutin, *The Proto-Elamite Settlement and Its Neighbors*, 396-399 figs. 3.99-3.103.

<sup>xlv</sup> See animal decorations in Didier, *La production céramique du Makran*, 124 fig. 86 nos. 2-3; 126 fig. 88 no. 7; 134 fig. 95 no. 9.

<sup>xlvi</sup> Besenval, "The Chronology of the Ancient Occupation in Makran," 202 fig. 4; 203 fig. 7 nos. 1/94/IV/78/5, 1/94/IV/78/3; Besenval, "Entre le Sud-Est iranien et la plaine de l'Indus," 12 fig. 7 nos. 1/96/X/34/1, 1/96/X/19/1;

- Besenal, "New Data for the Chronology," 172 fig. 11; Mutin, "Ceramic Traditions and Interactions," 256 fig. 14.2 nos. 2, 5-10, 19-21; Mutin *et al.*, "New Discoveries," 111 fig. 6 nos. 8-13, 17-20.
- <sup>xlvii</sup> Mutin *et al.*, "New Discoveries," 114 fig. 8 nos. 1-7.
- <sup>xlviii</sup> Mutin *et al.*, "New Discoveries," 109 fig. 5 nos. 13-14, 16-17, 19.
- <sup>xlix</sup> Besenal and Sanlaville, "Cartography of Ancient Settlements," 136 fig. 11d; Mutin, "Ceramic Traditions and Interactions," 261 fig. 14.9 nos. 6-7.
- <sup>l</sup> Besenal and Sanlaville, "Cartography of Ancient Settlements," 136 fig. 11a; Mutin, "Ceramic Traditions and Interactions," 261 fig. 14.9 nos. 1, 3-4, 8.
- <sup>li</sup> Mutin, "Ceramic Traditions and Interactions," 261 fig. 14.9 nos. 1-4.
- <sup>lii</sup> See above and Mutin, "Ceramic Traditions and Interactions," 261 fig. 14.9 no. 13.
- <sup>liii</sup> Besenal, "Entre le Sud-Est iranien et la plaine de l'Indus," 17 fig. 16; Mutin, "Ceramic Traditions and Interactions," 262-263; 263 fig. 14.11 nos. 1-4; 264 fig. 14.12.
- <sup>liv</sup> See Mutin, "Ceramic Traditions and Interactions"; Mutin *et al.*, "New Discoveries," 107-110; 111 fig. 6 nos. 1-5.
- <sup>lv</sup> e.g. for the latter: Piperno and Salvatori, *The Shahr-i Sokhta Graveyard*, 183 fig. 397 no. 7494.
- <sup>lvi</sup> See Didier, *La production céramique du Makran*, 112 fig. 76 no. 12; 114 fig. 78 no. 9; 121 fig. 84 no. 8; 124 fig. 86 no. 3; 131 fig. 92 nos. 18-27; 132 fig. 93 nos. 1, 5; 134 fig. 95 no. 10; 135 fig. 96 nos. 1-2; 173 fig. 141 no. 13; 185 fig. 152 no. 5; 186 fig. 53 no. 5; 202 fig. 168 no. 8; 205 fig. 171 no. 10; 219 fig. 181 no. 7.
- <sup>lvii</sup> See Mutin, "Chrono-cultural Sequence of the Bampur Valley"; Mutin *et al.*, "New Discoveries."
- <sup>lviii</sup> Beale and Lamberg-Karlovsky, *Excavations at Tepe Yahya, Iran 1967-1975. The Early Periods*; Garazhian, "Darestan: A Group of Pre-Pottery Neolithic (PPN) Sites"; Mutin and Garazhian, "Bam Archaeological Mission"; current research by N.A. Soleimani at Tepe Gav Koshi.
- <sup>lix</sup> Besenal, "The Chronology of the Ancient Occupation in Makran"; Besenal, Marcon, Buquet, and Mutin, "Shahi-Tump: Results of the Last Field-Seasons"; Desse *et al.*, "Faune et flore des niveaux profonds de Shahi-Tump"; Mutin, "Ceramic Traditions and Interactions."
- <sup>lx</sup> Mutin, "Chrono-cultural Sequence of the Bampur Valley"; Mutin *et al.*, "New Discoveries."
- <sup>lxi</sup> Mutin, "Ceramic Traditions and Interactions," 260; Mutin, "Chrono-cultural Sequence of the Bampur Valley."
- <sup>lxii</sup> Amiet and Tosi, "Phase 10 at Shahr-i Sokhta"; Potts and Lamberg-Karlovsky, *Excavations at Tepe Yahya, Iran 1967-1975. The Third Millennium*; Desset, Vidale, and Soleimani, "Mahtoutabad III"; Mutin, *The Proto-Elamite Settlement and Its Neighbors*.
- <sup>lxiii</sup> Besenal, "The Chronology of the Ancient Occupation in Makran," 207-208, 210 fig. 18.
- <sup>lxiv</sup> See Mutin, "Chrono-cultural Sequence of the Bampur Valley," 26 on these points.
- <sup>lxv</sup> Save for burials excavated by Stein at Shahi-Tump (Stein, *An Archaeological Tour in Gedrosia*) and limited deposits at Miri Qalat (Besenal, "The Chronology of the Ancient Occupation in Makran"). It is also important to recall that not all researchers agree on the dating of Kech-Makran IIIb-IIIc and that of the parallels and the periods where these parallels for the ceramics of these periods are recorded in southeastern Iran and the Oman Peninsula. For instance, while these periods in Kech-Makran are assumed to date to between ca. 2800-2500 BCE, the contexts where these ceramics are recorded in the Oman Peninsula date to the late third millennium BCE, and those at Shahr-i Sokhta (Periods III and IV in particular) within the second half of the third millennium BCE (see Cortesi, Tosi, Lazzari, and Vidale, "Cultural Relationships Beyond the Iranian Plateau"; Jarrige, Didier, and Quivron, "Shahr-i Sokhta and the Chronology"; Didier, *La production céramique du Makran*; Heydari, Fazeli Nashli, Cortesi, and Vidale, "A Surface Collection at Chegerdak," 151 note 17).
- <sup>lxvi</sup> Mutin, Minc, Lamberg-Karlovsky, and Tosi, "Regional and Long-Distance Exchange," 142 fig. 1.
- <sup>lxvii</sup> Mutin, Minc, Lamberg-Karlovsky, and Tosi, "Regional and Long-Distance Exchange."
- <sup>lxviii</sup> Didier, *La production céramique du Makran*, 251-268.
- <sup>lxix</sup> Didier, *La production céramique du Makran*, 48-55, 225-226.
- <sup>lxx</sup> Moradi, Mutin, and Sarhaddi-Dadian, ongoing research.
- <sup>lxxi</sup> Didier, *La production céramique du Makran*.
- <sup>lxxii</sup> Stein, *Archaeological Reconnaissances*, pl. XX.
- <sup>lxxiii</sup> Wright, "Technology, Style and Craft Specialization"; Méry, Besenal, Blackman, and Didier, "The Origin of the 3rd Millennium BC Fine Grey Wares."
- <sup>lxxiv</sup> Méry, *Les céramiques d'Oman et l'Asie moyenne*; Méry, Besenal, Blackman, and Didier, "The Origin of the 3rd Millennium BC Fine Grey Wares." See Didier, *La production céramique du Makran*, 251-283 on the parallels in southeastern Iran and the Oman Peninsula for Kech-Makran IIIb-IIIc ceramics.
- <sup>lxxv</sup> Shirazi, "The Petroglyphs of the Kajou Valley."
- <sup>lxxvi</sup> Heydari, Desset, and Vidale, "Bronze Age Glyptics," 139.

<sup>lxxvii</sup> See Mutin and Lamberg-Karlovsky, “The Relationship between the Oxus Civilization and the Southeastern Iranian Plateau” for a recap.

<sup>lxxviii</sup> Heydari, Desset, and Vidale, “Bronze Age Glyptics,” 139, 150.

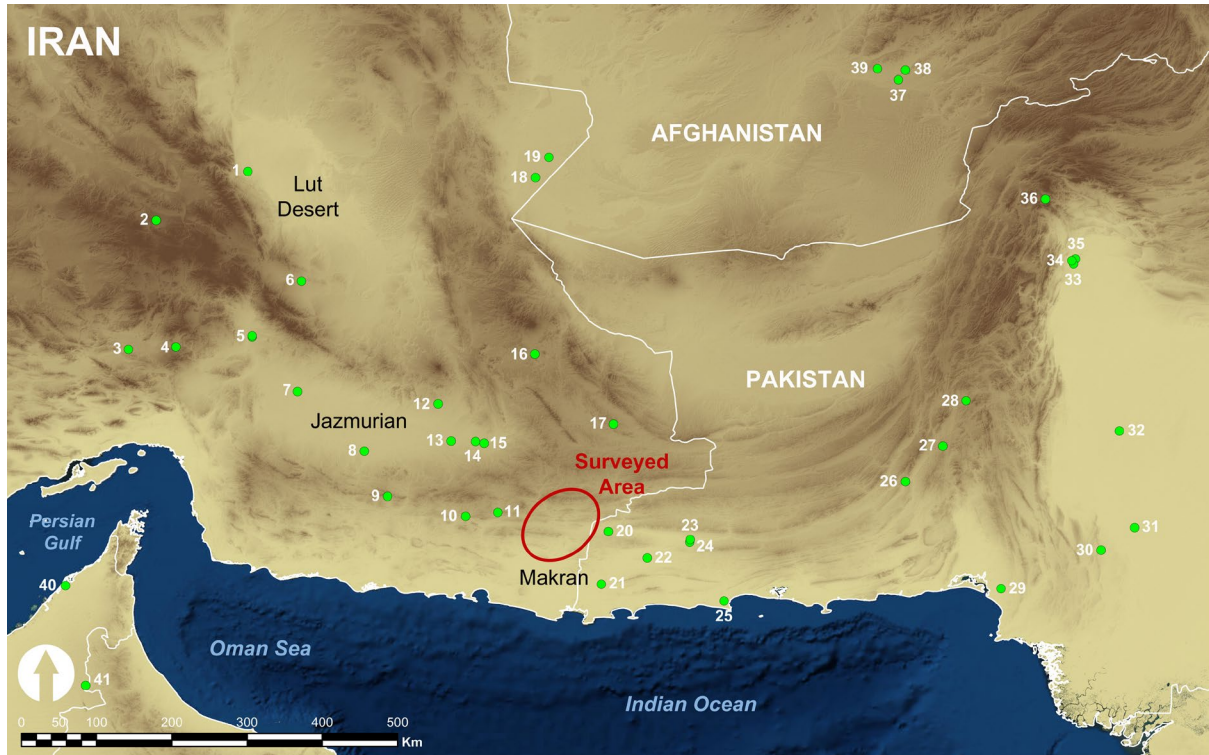


Figure 1: Map of the Indo-Iranian Borderlands with location of the surveyed area and of the main Chalcolithic and Early Bronze Age sites including the sites mentioned in the text (map created by B. Mutin using Arcmap by ESRI). 1: Shahdad; 2: Tal-i Iblis; 3: sites in the Daulatabad Plain; 4: Tepe Yahya; 5: Konar Sandal South and Konar Sandal North; 6: sites in the Bam region; 7: Takkul; 8: Chegerdak; 9: Fanuch; 10: Keshik; 11: petroglyphs in the Kajou Valley; 12: Spidej; 13: Chah Husaini; 14: Tepe Bampur; 15: Khurab; 16: sites in Kash County; 17: Rubahak; 18: Rud-i Biyaban 2; 19: Shahr-i Sokhta; 20: sites in the Nahang/Nihing Valley; 21: Sutkagen-Dor; 22: sites in the Dasht Plain; 23: Miri Qalat; 24: Shahi-Tump; 25: Sotka Koh; 26: Kulli; 27: Mehj; 28: Sohr Damb/Nal; 29: Balakot; 30: Amri; 31: Chanhu-daro; 32: Mohenjo-daro; 33: Nausharo; 34: Sibri; 35: Mehrgarh; 36: Kili Ghul Mohammad; 37: Deh Morasi Ghundai; 38: Said Qala Tepe; 39: Mundigak; 40: Tell Abraq; 41: Hili.

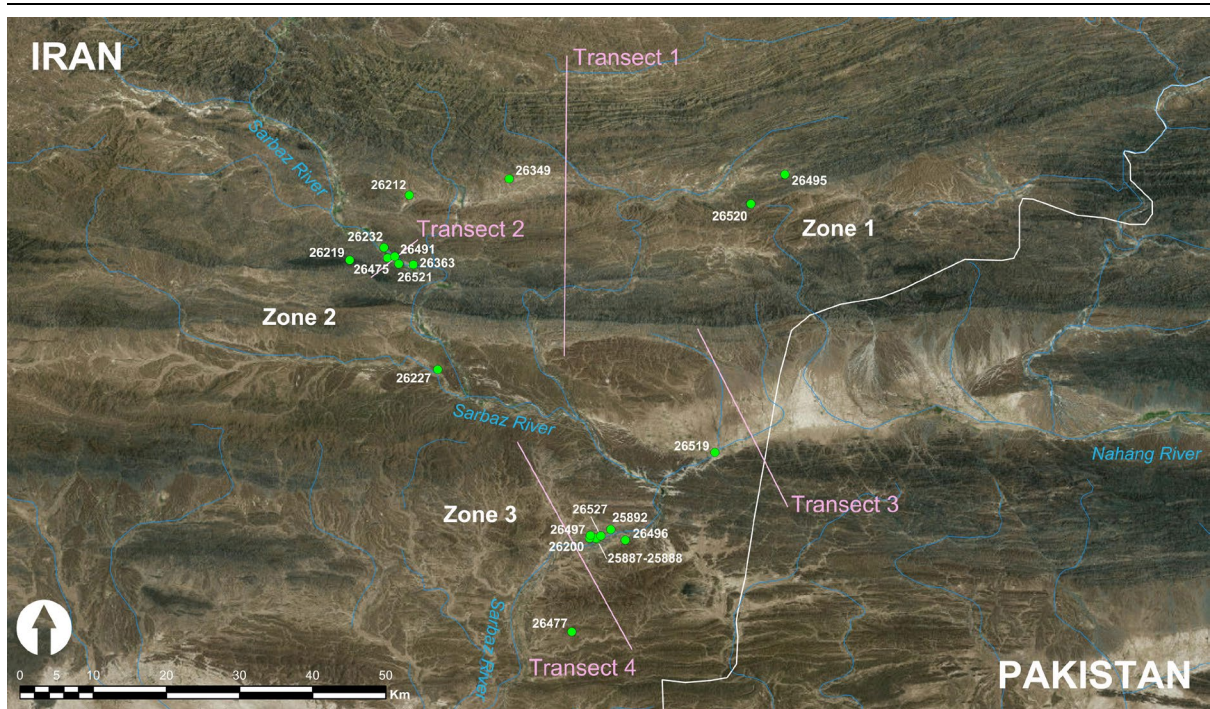


Figure 2: Detailed map of the surveyed area with location of the recorded sites and elevation transects represented on Figure 3 (map created by B. Mutin using Arcmap by ESRI).



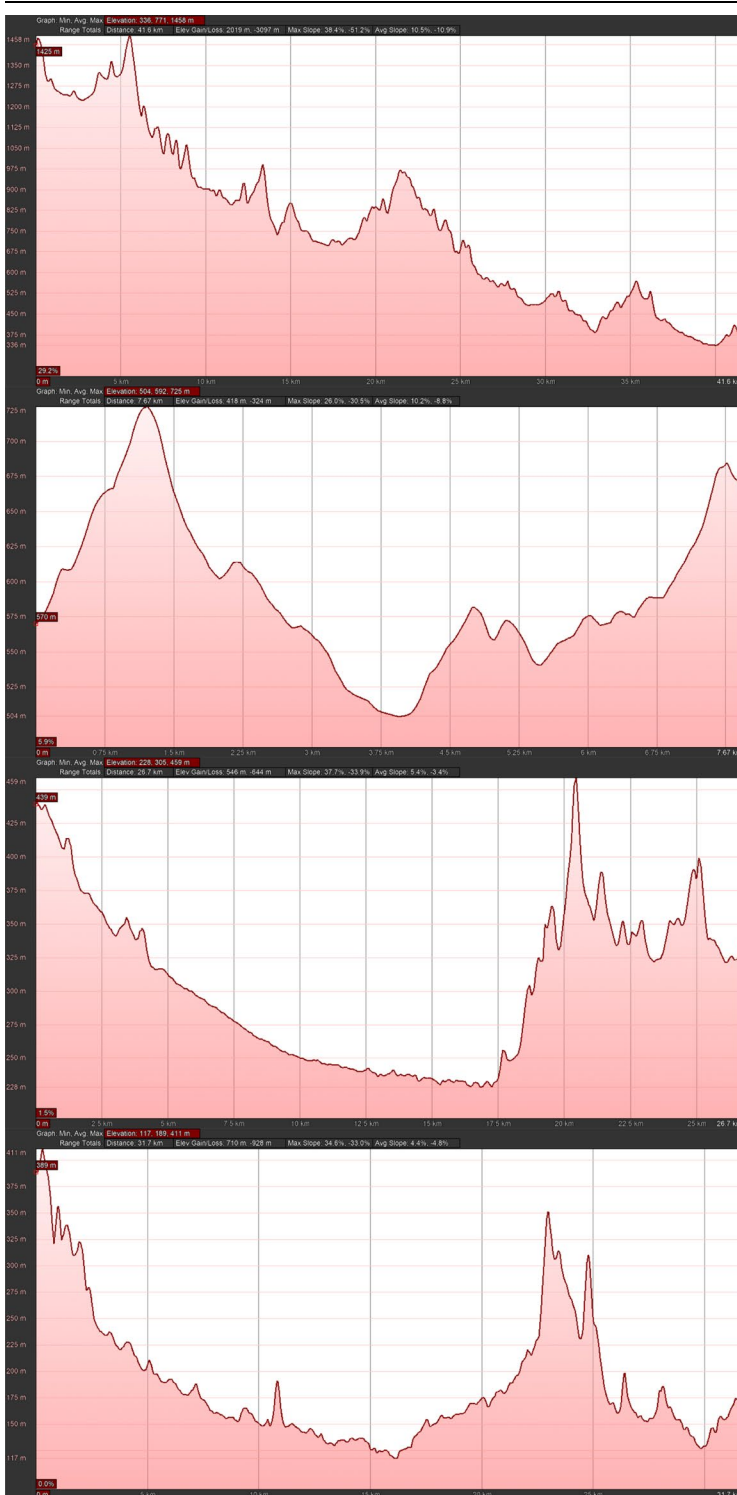
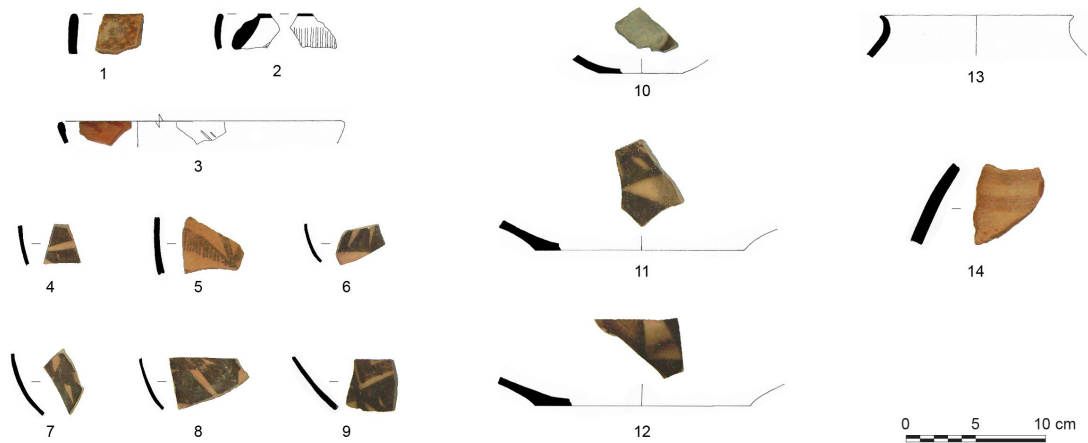


Figure 3: Elevation transects mapped on Figure 2. Transects 1 to 4 from top to bottom. On Transect 1 (north to south from left to right), the valley where site 26349 is located is between ca. km. 16 and km. 19. On Transect 2 (southwest to northeast from left to right), the Sarbaz Valley is between ca. km. 3.5 and km. 4.2. On Transect 3 (northwest to southeast from left to right), the sedimentary plain north of Pishin, including an alluvial cone in its northern periphery, is between ca. km. 4 and km. 17.5. On Transect 4 (northwest to southeast from left to right), the Keshari Plain is between ca. km. 14 and km. 18.5. (Transects created by B. Mutin using Google Earth, ©GoogleEarth).

Site 26520



Site 26495

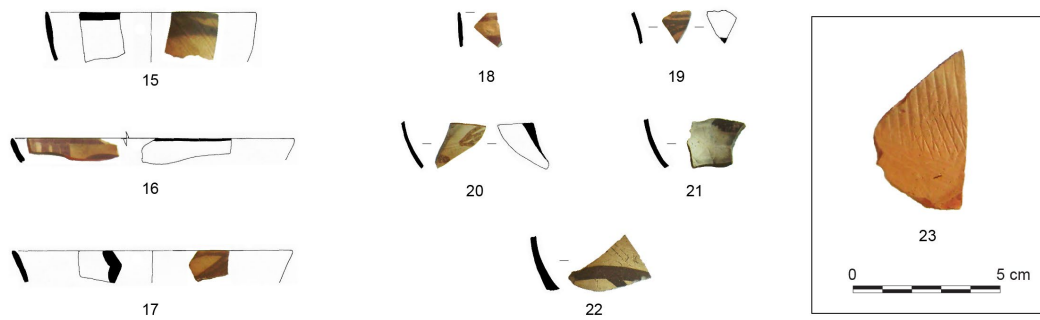
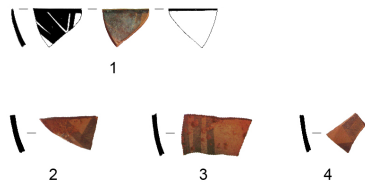
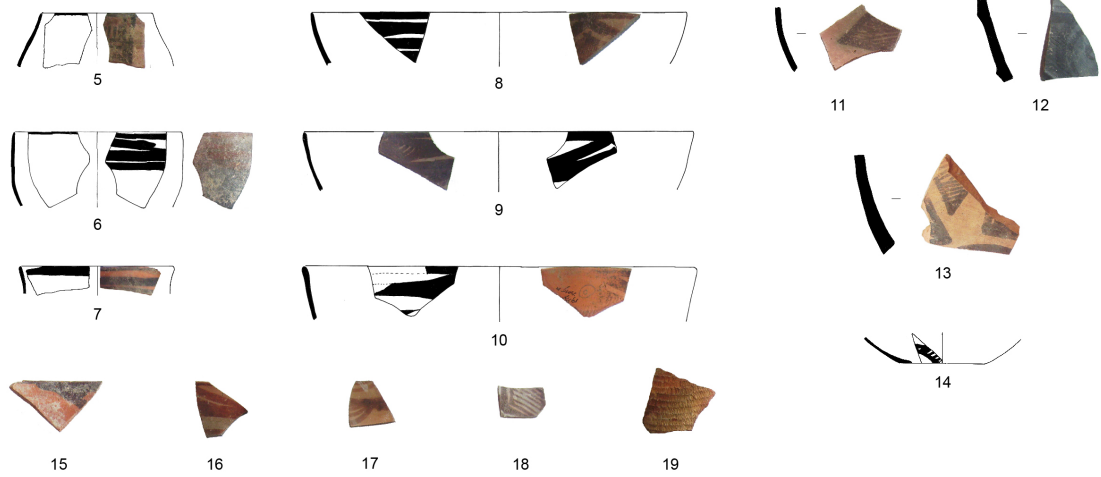


Figure 4: Archaeological material collected on the surfaces of sites 26520 and 26495. (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

Site 26349



Site 26212



Site 26232

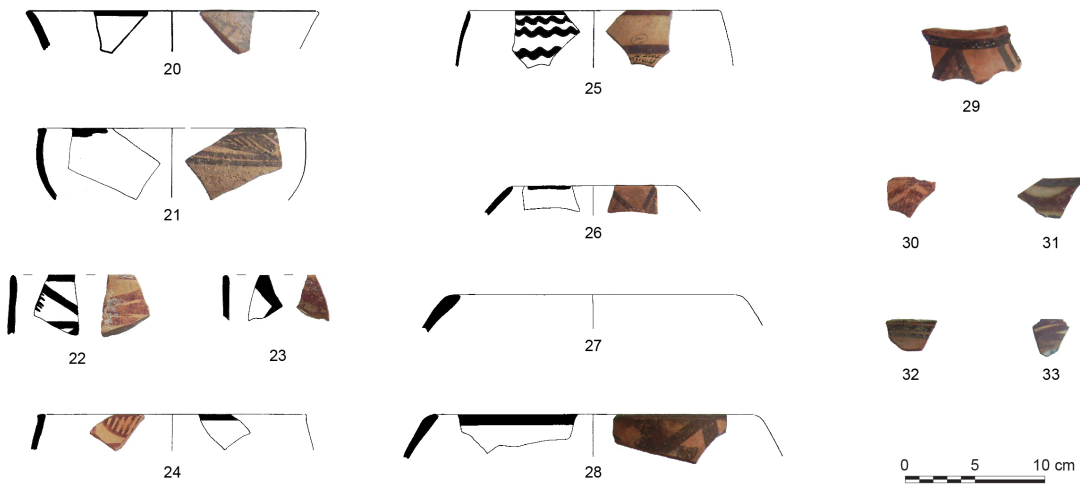
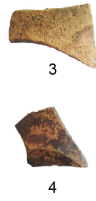
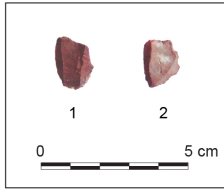


Figure 5: Archaeological material collected on the surfaces of sites 26349, 26212, and 26232. (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

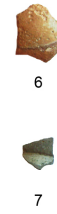
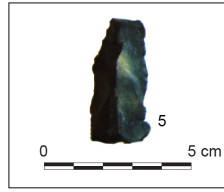


Figure 6: Satellite views (left) and ground-level views (right) of sites 26212, 26519, 25892, and 25887-25888. (Satellite images from Google Earth, ©GoogleEarth; photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

Site 26475



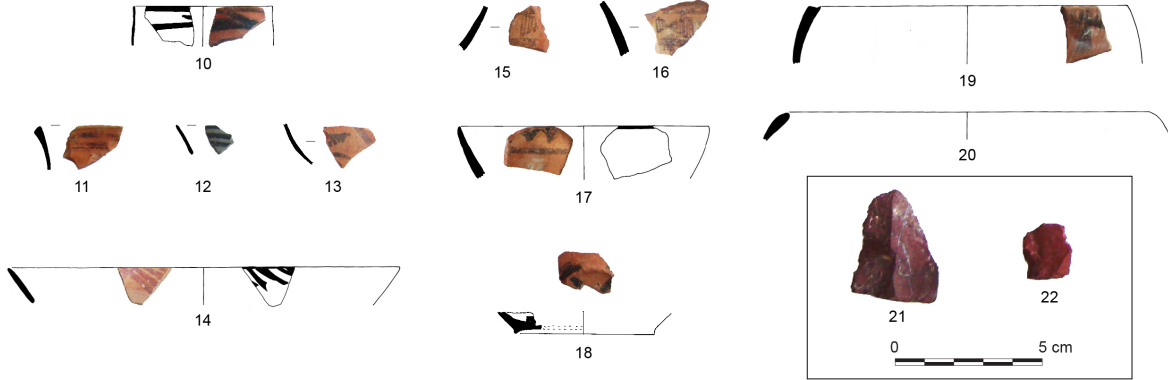
Site 26491



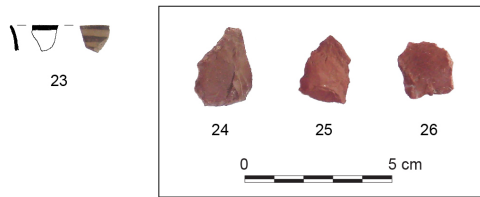
Site 26227



Site 26521



Site 26363

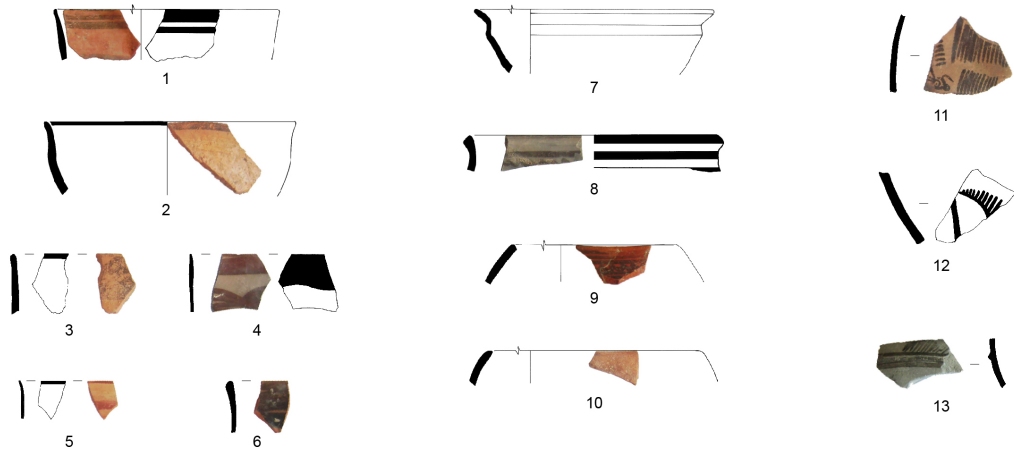


Site 26219

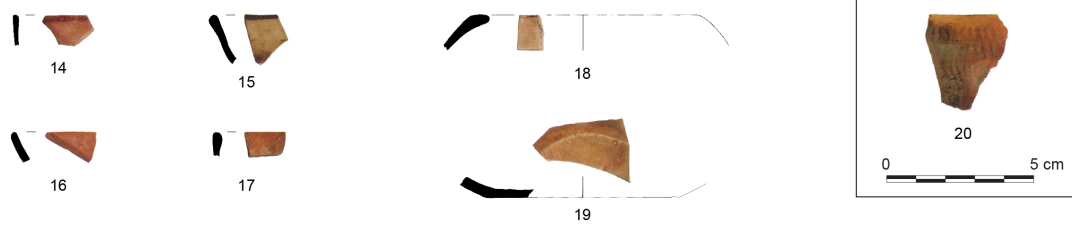


Figure 7: Archaeological material collected on the surfaces of sites 26475, 26491, 26227, 26521, 26363, and 26219. (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

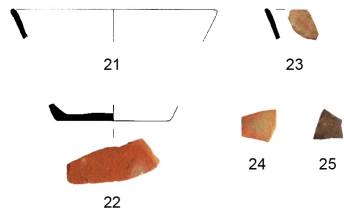
Site 26519



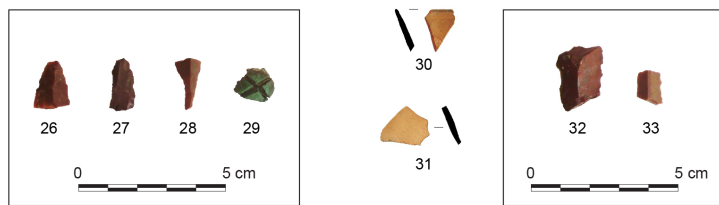
Site 26496



Site 26527



Site 26497



Site 26200



Figure 8: Archaeological material collected on the surfaces of sites 26519, 26496, 26527, 26497, and 26200. (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

Site 25892



Figure 9: Archaeological material collected on the surface of site 25892 (ceramics). (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

Site 25892

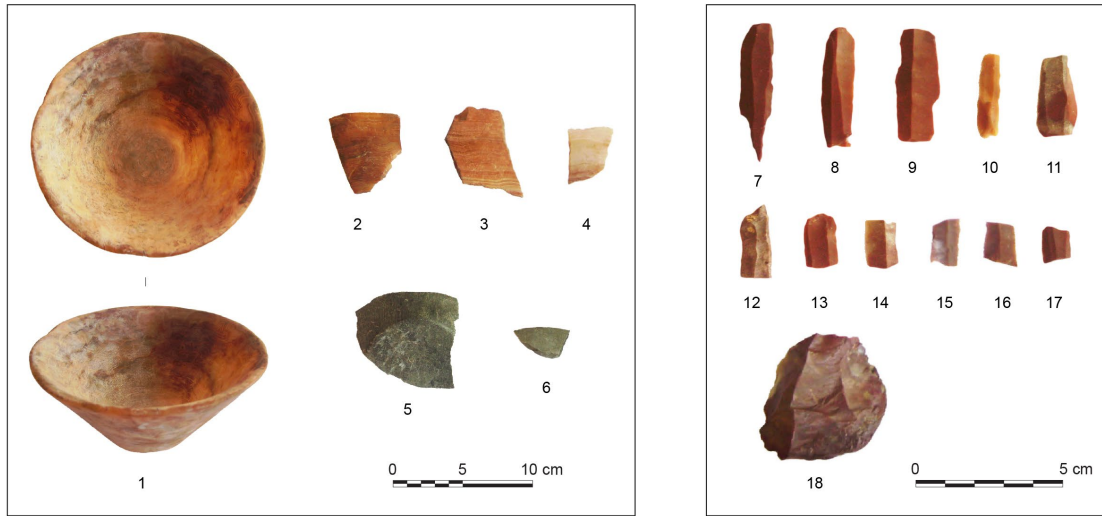
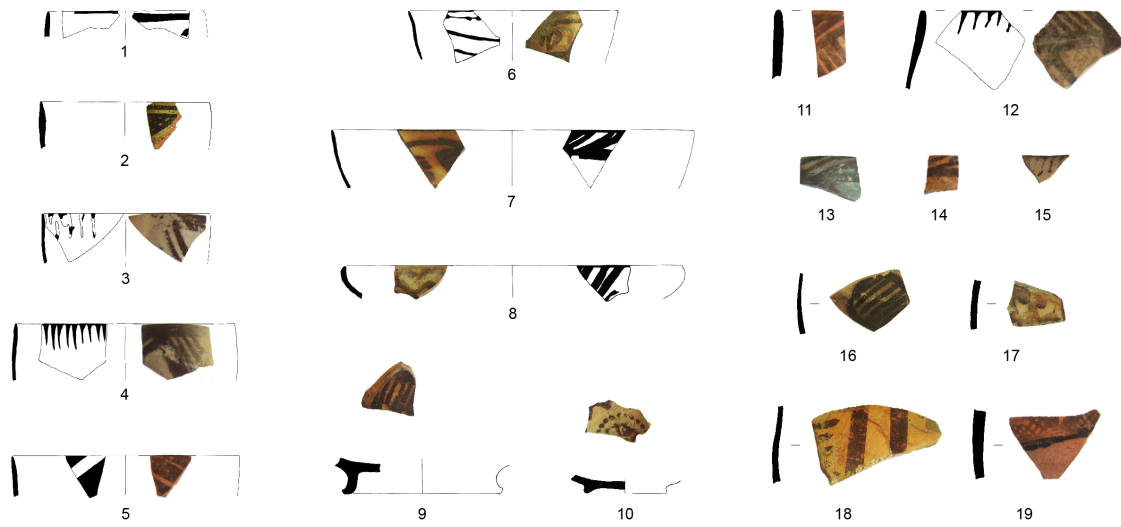


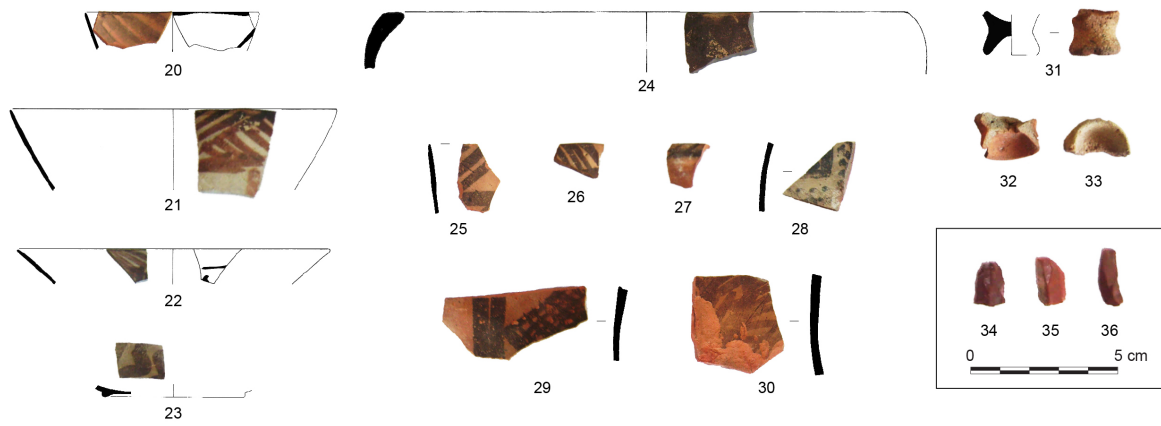
Figure 10: Archaeological material collected on the surface of site 25892 (stone vessels and lithics). (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).



Site 25887



Site 25888



Site 26477

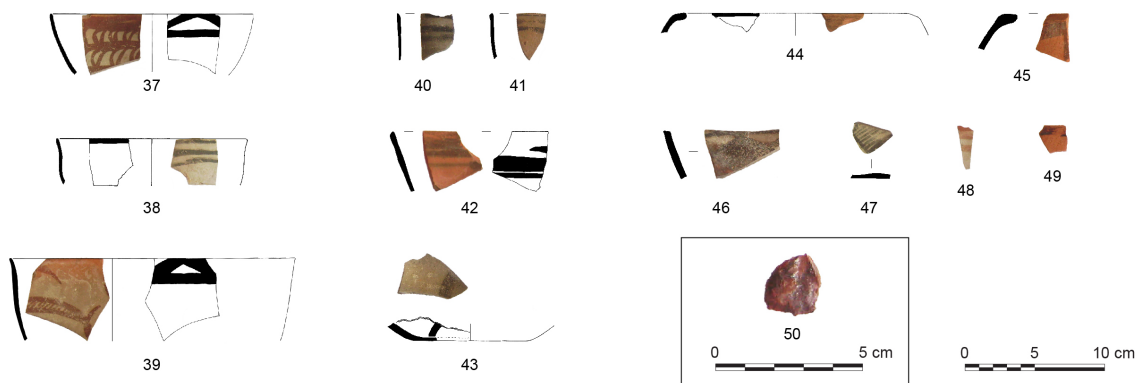


Figure 11: Archaeological material collected on the surfaces of sites 25887, 25888, and 26477. (Drawings and photographs by H. Moradi and H. Sarhaddi-Dadian; plate composition by B. Mutin).

Zone	Site #	Length (m)	Width (m)	Area (ha)	Archaeological deposits height (m)	Period, with reference to Kech-Makran sequence (KM) when possible
Zone 1	26495	80	50	0.4	0.1	KM Late IIIa and IIIb
Zone 1	26520	300	100	3	0.7	KM II, IIIb, and possibly IIIc
Zone 2	26212	100	100	1	3	KM Late IIIa and IIIb
Zone 2	26219	50	30	0.15	0.5	Late Chalcolithic, possibly more specifically KM II
Zone 2	26227	30	30	0.09	0.3	Late Chalcolithic/Early Bronze Age
Zone 2	26232	300	100	3	1	KM Late IIIa, IIIb, and possibly II and Early IIIa
Zone 2	26349	60	20	0.12	0.3	KM II
Zone 2	26363	50	50	0.25	1.7	KM IIIb and possibly IIIc
Zone 2	26475	100	50	0.5	0.7	Late Chalcolithic/Early Bronze Age
Zone 2	26491	50	50	0.25	0.5	Late Chalcolithic/Early Bronze Age
Zone 2	26521	200	100	2	1	KM II, Early IIIa, Late IIIa, and IIIb
Zone 3	25887	50	50	0.25	4	KM Early IIIa
Zone 3	25888	100	40	0.4	3	KM Early IIIa
Zone 3	25892	300	100	3	3	KM II
Zone 3	26200	100	70	0.7	3	Late Chalcolithic/Early Bronze Age
Zone 3	26477	30	30	0.09	0.5	KM Late IIIa and IIIb
Zone 3	26496	30	20	0.06	0.5	Late Chalcolithic/Early Bronze Age, possibly more specifically KM II
Zone 3	26497	30	30	0.09	1	Late Chalcolithic
Zone 3	26519	50	50	0.25	6	KM Late IIIa, IIIb, and possibly IIIc
Zone 3	26527	100	30	0.3	1	Late Chalcolithic, possibly more specifically KM II

Zone 1 average area (ha.) and height (m.) 1.70 0.40  
Zone 2 average area (ha.) and height (m.) 0.82 1.00  
Zone 3 average area (ha.) and height (m.) 0.57 2.44

Table 1: List of the Late Chalcolithic and Early Bronze Age sites recorded in the Sarbaz Valley and adjacent areas, with indication of their occupation periods based on surface material and with reference to Kech-Makran chronological sequence when possible.

Period	Period, with reference to Kech-Makran sequence (KM) when possible	Number of sites	Total Late Chalcolithic	Total Late Chalcolithic (confirmed KM II + KM IIIa)	Total Early Bronze Age (confirmed KM Late IIIa + KM IIIb + KM IIIc on KM Late IIIa-IIIb sites)	Total Late Chalcolithic/Early Bronze Age (undefined)
Late Chalcolithic	KM II	4	13	7		
	Early KM IIIa	3				
	Possible KM II	2				
	Possibly Early KM IIIa	2				
	Undefined	1				
Late Chalcolithic/Early Bronze Age	Possibly KM II	1	17 incl. undefined		12 incl. undefined	4
	Undefined	4				
Early Bronze Age	KM Late IIIa-IIIb	6			8	
	KM IIIb	2				
	Possibly KM IIIc	3				

Table 2: Quantities of Late Chalcolithic and Early Bronze Age sites recorded in the Sarbaz Valley and adjacent areas sorted by their occupation periods.

Dates BCE	Kech-Makran	Bampur Valley	Tepe Yahya
2000			
2500	IV IIIb-IIIc	Bampur Tepe I-VI	IVB Hiatus
3000	IIIa		IVC
3500	II	Sites with Aliabad ware	Hiatus Aliabad Period
4000			
4500	I	Chah Husaini	V

Table 3: Simplified comparative chronology of Kech-Makran in Pakistan, the Bampur Valley in Iranian Baluchestan, and Tepe Yahya in Kerman. Note that the dating of Bampur Tepe, Tepe Yahya IVB and their relationship to the chronological sequence established in Kech-Makran are the topic of disagreement. We adapt here Didier 2013: 37 Tab. 1 for this part of the sequence. Also, there is no radiocarbon dates available from Chah Husaini, but this site yielded ceramics similar to those found at Tepe Yahya V. The sites with Aliabad ware in the Bampur Valley mentioned in this table are those reported in Mutin *et al.*, "New Discoveries."