



HAL
open science

The Oxus civilization/BMAC and its interaction with the Arabian Gulf. A review of the evidences

Pierre Lombard

► **To cite this version:**

Pierre Lombard. The Oxus civilization/BMAC and its interaction with the Arabian Gulf. A review of the evidences. Bertille Lyonnet; Nadezdha Dubova. The World of the Oxus Civilization, Routledge, pp.607-634, 2020. halshs-02123710

HAL Id: halshs-02123710

<https://shs.hal.science/halshs-02123710>

Submitted on 8 May 2019

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.

To be published in: B. Lyonnet and N. Dubova (eds), *The World of the Oxus Civilization*. World Series, Abingdon/Oxford: Routledge (*under press*).

Chapter 22 — The Oxus civilization/BMAC and its interaction with the Arabian Gulf. A review of the evidences

Pierre Lombard
ORCID.org/0000-0002-8452-0630

Abstract

The question of the relations between the Arab-Persian Gulf region and the Oxus Civilization/BMAC at the end of the 3rd and in the first quarter of the 2nd millennium BC, is a recent and frequent topic in Gulf studies. Transfer of pottery, of metal artifacts, seals, soft-stone items, etc. via the Indus Civilization has been considered, though other roads may also have been used. The present archaeological evidence, enriched by new material from the UAE, Bahrain and Kuwait, rather favors a deeper network where visible technical and art influences between the two regions probably hide a transfer of goods that have now disappeared, and clearly demonstrates the integration of the Gulf into the cultural interaction sphere between Central Asia, Mesopotamia, Iran and the Indus.

Introduction

The relationship between the Arab-Persian Gulf cultures and the Oxus Civilization at the end of the 3rd and in the first quarter of the 2nd millennium BC is a recurring theme in the archaeology of the Arabian Peninsula¹.

As long known, the Gulf has played a major role in the circulation of different raw materials or goods that the Mesopotamians were searching for abroad (Oppenheim 1954; Leemans 1960). During the Akkadian period, the Gulf was the main artery for the earlier trade between Magan/Oman and Mesopotamia, which passed through Dilmun (Potts 1990; Begemann *et al.* 2010). It is also at that time that the first mentions are made in the cuneiform texts of Meluhha/the Indus area (see recently Laursen and Steinkeller 2017). Magan is usually considered as covering the actual territory of the United Arab Emirates and a large part of the Oman Sultanate, but several voices have also proposed that a portion of the Persian coast would be part of it (Possehl 2002; Potts 2016). The definition of Dilmun may have changed across time but, for the period of our concern, it included Bahrain together with a still poorly defined part of the eastern Arabian peninsula including the Tarut (Saudi Arabia) and Failaka (Kuwait) islands (**Fig. 22.1**)

At Dilmun or Magan, beside finds attributed with certainty to Mesopotamia or the Indus, a growing number of other discoveries presenting features foreign to them has led to consider that the Gulf was involved into a larger cultural sphere, that of Amiet's 1986 "Iran Extérieur" or of Possehl's 2002 "Middle Asian Interaction Sphere" which included Central Asia (see also the map in Possehl 2007: 41). These reflections were initiated in the 1970s, but they mostly developed during the 1980s together with the rise of excavations in the Gulf. They owe much to the work of E.C.L. (Inez) During Caspers (mostly 1989, 1992, 1994a, 1994b, 1994c, 1996) and many articles related to her work and to these questions have been published in a book dedicated to her memory (Olijdam and Spoor eds. 2008). Other specialists also occasionally participated in this discussion (Tosi 1974; Masson 1988; Potts 1983, 1993, 2008; Amiet 1986: 171-180; Olijdam 2008; Weeks 2016). This research focused mainly on the inventory of the artifacts potentially reflecting such interrelations, or concerned a particular case.

The debate is extensive, sometimes contradictory over time, and often stained with inaccuracies about the exact provenance or the precise dating of the discussed artifacts. Several recent discoveries give us an opportunity to reconsider and to question the exact nature of the interactions that existed between Central Asia and the Gulf.

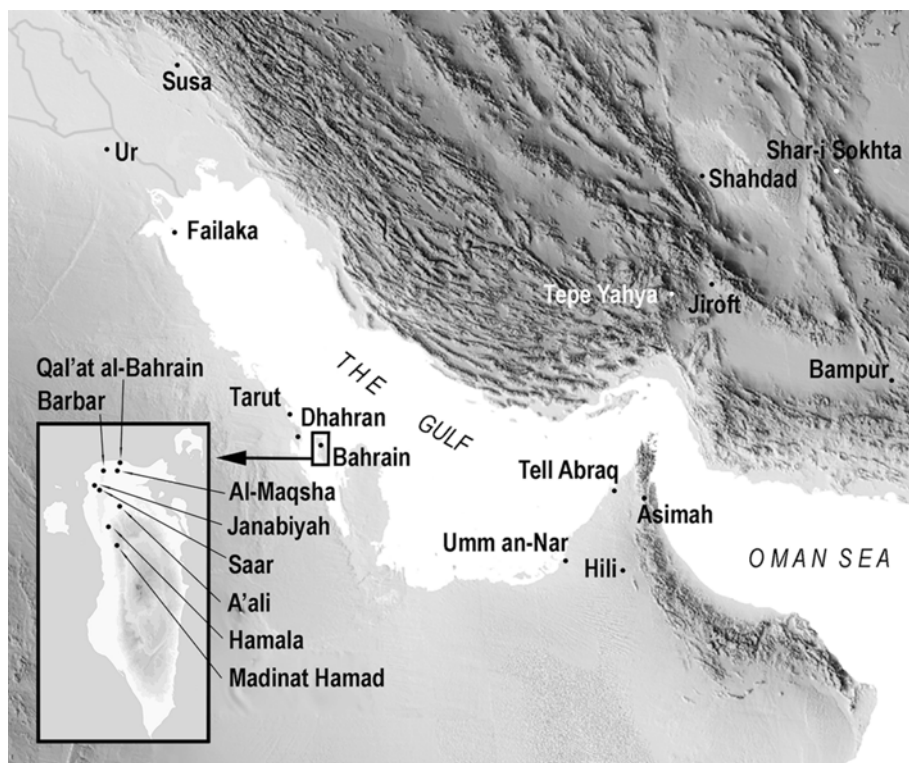


Fig. 22.1 — Map of the Arabian Gulf area, with archaeological sites mentioned in the text. (cartography UMR 5133-Archéorient, CNRS, Lyon/ P. Lombard).

1. A few direct relations

We have first to admit that, altogether, the artifacts testifying of connections between the Gulf and the Oxus area are rare though unquestionable and present in both areas. Moreover, as we will see, it is not always obvious to distinguish the items really foreign from those that were made locally but under a deep foreign influence.

Exports from the Gulf discovered in Central Asia

As far as we know, only two artifacts undoubtedly coming from the Gulf have been found in Central Asia. They are made of soft stone and illustrate the characteristic production of Dilmun and Magan.

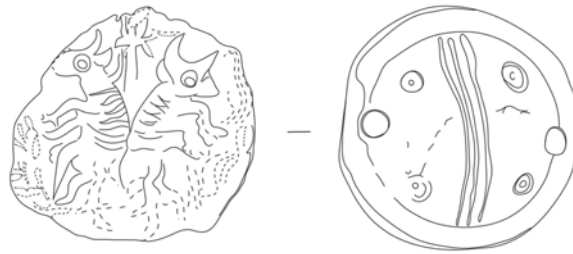


Fig. 22.2 — Dilmun stamp seal from unknown provenance, Afghanistan (?).
(Drawing : J. Marchand, after Sarianidi 1986: 231)

The first is a typical Dilmun stamp seal, as shown by its morphology, style of engraving and iconography (**Fig. 22.2**). Unfortunately, its provenance is uncertain. It was published laconically by Sarianidi (1986: 231, right margin), who said it was from Afghanistan without further precision. The rather early date of the publication shows that it was probably coming from the Kabul Bazar where, at that time, the material was mostly that from the looted graves in Bactria, but we have no way to prove it. Only a drawing and an imprint of his reverse side is published, revealing a rather complex iconography but the drawing is not totally clear. It represents two bovines in standing position, placed back-to-back, accompanied by symbols difficult to identify. This discovery has been re-examined later by E. Olijdam (2008: 282, Fig. 14), who compared it with a so-called “Dilmun” stamp seal from the now under water Harappan port of Dwarka (Gujarat), already noticed by H. Crawford (1998: 90-91, and Fig. 5.7). Though the motif on the Dwarka piece could effectively recall the Dilmun iconographic style, E. Olijdam’s view is quite surprising, as this latter seal, in our view, cannot be attributed to the Dilmun production because of its square shape which rather relates it with the Late Harappan one. Moreover, and as stressed by Olijdam, if double or multiple animal patterns

are present in the Dilmun iconographic repertoire, the disposition of animals back to back is unusual and the animals are more frequently represented with crossed bodies or necks (see for example Al-Sindi 1999: 262-264). Nevertheless, even if no clear *compendium* exists for this seal supposed to come from Afghanistan, its general style and the characteristic organization of its back – a wide perforated boss decorated with three parallel lines running at right angles to the perforation and with four dot-in-circle motifs placed on both sides of the lines – definitely points towards a chronological attribution to Qal’at al-Bahrain City IIb-c (ca. 1950-1800 BC²), i.e. a very intensive period of the Gulf trade.



Fig. 22.3 — Grave 3245 from the Gonur Royal Necropolis
(©Margiana Archaeological Expedition)

The second artifact has been discovered in a woman’s grave of the “Royal Necropolis” (grave 3245)³ at Gonur North⁴. This grave is a simple two-chambers tomb situated between the larger hypogea, and, by chance, was never looted (Sarianidi 2005: 253-4; Potts 2008; Salvatori 2010; for the Gonur Royal Necropolis see chap.10, this volume) (**Fig. 22.3**). The object is a more or less rectangular two compartments chlorite container decorated on the exterior long sides with two rows of incised double-dotted circles (**Fig. 22.4**) (Sarianidi *ibid.*: Fig. 103; Potts 2008, Fig. 20; Salvatori 2010: 247 and fig. 5). Together with it, in the smaller room dedicated to the offerings, were several other artifacts (**Fig. 22.5**): another chlorite larger casket with four compartments only decorated on its lid with rows of deep grooves along the sides and a serpent coiled at right angles in the center; a small cylindrical and undecorated chlorite container; four long jadeite pins or needles; a round fluted alabaster vessel ; a plain cylindrical alabaster vessel with flat horizontal rim; an ivory cosmetic palette representing a winged griffon swallowing a calf (see chap. 7: fig. 7.1, this volume) and other ivory items with incised dotted circles; part of an unworked elephant tusk; a painted inlay

representing a woman's face in profile; a large copper/bronze bowl and another deeper metal vessel with a wide horizontal rim; a triangular copper/bronze spatula with a coiled handle, and a marine shell belonging to the *Cardium* genus (Fig. 22.6). The woman in the larger room was wearing a faience bracelet at each arms and a necklace of tiny gold, lapis and other semi-precious stones. Several pottery vessels accompanied these offerings. (see Fig. 22.3).



Fig. 22.4 — Compartmented chlorite vessel from Grave 3245, Gonur Royal Necropolis
(©Margiana Archaeological Expedition)



Fig. 22.5 — Some of the burial offerings from Tomb 3245, Gonur Royal Necropolis.
(©Margiana Archaeological Expedition)

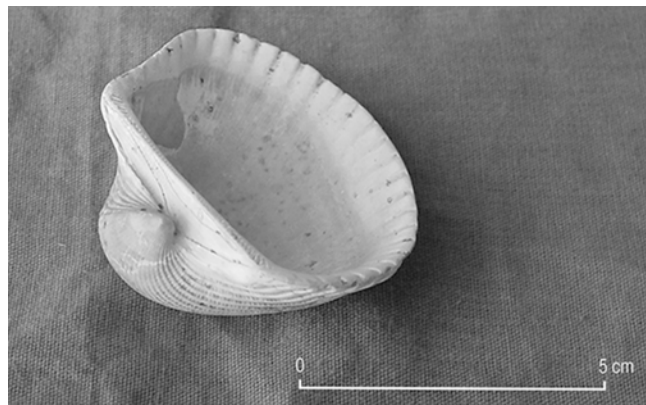


Fig. 22.6 — *Cardium* shell from Grave 3245, Gonur Royal Necropolis
(©Margiana Archaeological Expedition)

While several of these artifacts have close parallels with finds from the famous Quetta Hoard found by chance in Baluchistan and undoubtedly related to the BMAC (Jarrige and Hassan 1989), many of them also point at close connections with different southern areas; 1/ the Indus for the ivory items or the faience bracelets; 2/ SE Iran/Baluchistan (?) for the alabaster vessels, and the four-compartmented chlorite box with the snake motif on the lid; and 3/ the Gulf area for the marine shell and the two-compartmented container with incised dotted circles.

This last artifact can clearly be associated with the classical « *série récente* » of chlorite objects, first identified in Iran (at Susa and Tepe Yahya) but mainly produced in the Gulf (Vogt 1985: 31-32; David 1996: 34-38; see also chap. 9, this volume), notably during the Late Umm an-Nar period in the Oman Peninsula where this vessel was most probably made as shown by the presence of several similar items there. To the examples of Tell Abraq mentioned by Potts (2008: 174, Fig. 21, 175 and Figs. 22-25), one must add the five similarly compartmented specimens from Tomb A at Hili North (David 2002: 179, fig. 9: 1-6), and the eight specimens from Tomb N at Hili Garden (*ibid*: 182, Fig. 13: 1-3). D. Potts (2008: 176, fig. 29) also mentions only one such vessel from Saar at Bahrain, but many more such containers (with or without compartments) have actually been found in the cemeteries of this settlement. Beside the few specimens published by M. Ibrahim (1982: 154, figs. 3-4; 215, pl. 53: 3-4), at least four unpublished containers, found notably by a Jordanian expedition in the so-called “honeycomb cemetery” at Saar in 1998, are kept in the funds of the Bahrain National Museum. The average dates of the Late Umm an-Nar period, ca. 2300-1950 BC (Görsdorf and Vogt. 2001: 3-4) fit well with the occupation of Gonur North grave 3245 (2200-1957, 2 σ cal. BC) (see the Appendix at the end of the volume and Salvatori 2010: 248).

Imports from Central Asia found in the Gulf

The artifacts testifying of relations with the BMAC found in the Gulf are more numerous, but, as we said earlier, it is not always easy to separate those that are clear imports from those that are BMAC-related and could have been made locally.

- Seals and seal impressions

A clear import from the BMAC has been discovered in 1985 at the Madinat Hamad cemetery (sector BS2, tumulus 107) on Bahrain island (**Fig. 22.7**). It is a stone step-sided, perforated, square/rhomboidal stamp seal or amulette (BNM A21327). One side depicts a winged leaping

lion with a large opened maw and tail turned up on its rump. The other side shows two squatting (?) wolves placed top to tail one above the other with a horizontal line in between. On both sides, other elements (geometric designs or not surely identified animals – snake?) are visible (Crawford and Al-Sindi 1995:2, fig. 1-2; During Caspers 1994 a: 106-107, note 32; *id.* 1996: 52; Sarianidi 1998, fig. 941.1-2; Salvatori 2000: 130 (but listed with wrong provenance); Lombard and Boksmati-Fattouh 2017: 68).

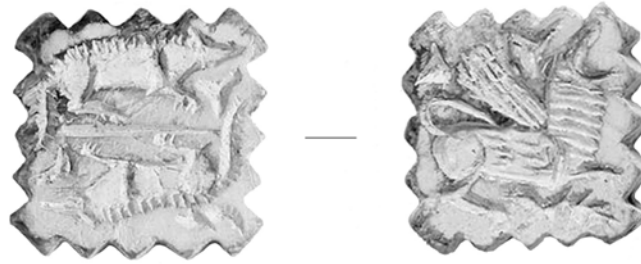


Fig. 22.7 — BMAC stamp seal or amulette from the Madinat Hamad cemetery (Bahrain)
(courtesy of the Bahrain National Museum)

This stamp-seal belongs to a type rather frequently found in the BMAC (type 19a in Salvatori 2000: 130-131). Most of known specimens unfortunately come from the antique market or are housed in private collections (Sarianidi 1981: 221-255; 1988: cat. 944, 947-957, 1518 for instance), but some come from Margiana where the localization is secure (mostly Gonur South, or Togolok 21, i.e. BMAC period 2) (Sarianidi 1998, cat. 1622-1631, 1784 etc.). The distinctive shape of the Bahrain stamp seal (Salvatori 2000's "stepped lozenge") is a recurrent one, either in soft stone (burnt steatite) or in copper (Ligabue and Salvatori 1988: fig. 18; Sarianidi 1998: 164-5, cat. 888, 890; *ibid.*:192-3, cat. 1014; *ibid.*: 296-7, cat 1635; Salvatori 2000: Figs. 14, 2 and 15, 4; Sarianidi 2002: 267; Vidale 2017: 85-6, figs. 68-71; see also chap.8, figs. 1, 5, 6). The winged lion with opened maw, frequently accompanied by snakes, is a traditional theme of the BMAC glyptic according to Sarianidi (1981: 250; 1998: 34-36) while the pattern of the opposite squatting wolves seems rather uncommon (cf. Sarianidi 1998: 71, cat. 107 for a different, but close representation). Up to now, such a find is unique in the Arabian Gulf and clearly an import.

A second stamp-seal comes from Tell F6 at Failaka (Kuwait) (Kjaerum 1983, n° 335) and could be related to type 19b in Salvatori (2000: 132). It is engraved on both sides and is badly eroded but the chest of a kneeling antelope is visible on one of them.

Still from Failaka, comes finally another testimony of the Gulf-BMAC interrelations that E. Olijdam's careful analysis (2008) makes particularly convincing, i.e. that of a cylinder seal

impression on a fragment of a thick-walled jar discovered in 1988, unfortunately in a disturbed context in the “Temple Tower” unearthed by the French mission on Tell F6 of the island (Pic 1990: 139, No. 26; Calvet 1996; Calvet 2005: 54) (**Fig. 22.8**).



Fig. 22.8 — Cylinder seal impression on a pottery jar fragment from Tell F6, Failaka, Kuwait
(Drawing : J. Marchand, after Calvet 1996: 60, fig. 3)

At first it was compared with the Late Mitanni glyptic and given a rather late date but M. Pic and Y. Calvet pointed out that seal impressions on jars before firing are very rare in the Gulf, and that the clay and temper of this fragment – buff with coarse mineral inclusions – excluded local or even regional production from the Gulf or Southern Mesopotamia (Calvet 1996: 59). Despite Olijdam's statement which could give the impression of a widespread practice in the BMAC area, the sealing on jars before firing is not very frequent in Central Asia, even more so with a cylinder-seal which is not a local type and started to develop only in the BMAC period 2 (Salvatori 2008: 80). Repertoried cases of cylinder-seal impressions (together with that of a stamp seal in one case) have been brought to light in Margiana at Gonur South (Hiebert 1994: 60-61) and at Taip Depe 1 (Kohl 1984, fig. 15c) on the shoulder of large storage jars ca. 1m in height and over 0.70m in diameter. In addition to these examples mentioned by Olijdam, we can add the more recent discovery of two large fragments of jars with seal impressions (though not from a cylinder seal) coming from northern Bactria, at the citadel of Dzharkutan, in an area interpreted as a possible storage building (Bendezu-Sarmiento and Mustafakulov 2013: 220). This last site has provided several other finds that also place it within the large exchange network including the Indus valley (*ibid.*). At Gonur, the southern part of the settlement is dated to period 2, as reminded by E. Olijdam (2008: 271) who reproduces this seal impression (*ibid.*: 272, fig 4a-b) as well as several fragments from Taip 1 (*ibid.*: 273-4, figs. 5a-c and figs 6-7). Their technical features are close to those of the Failaka sherd.

One of Olijdam's major argument in favor of a BMAC interrelation for the Failaka impression concerns its iconography (*ibid.*: 275-281) which he develops with much details.

The cylinder seal that was used is characterized by its large size (45mm high x15mm in diameter), rather exceptional when compared to the average dimensions of the few cylinder seals used in the Gulf (c. 17-31mm high x c. 10-14 mm in diameter). Its impression depicts a figurative scene where two birds of prey with the body in profile, outstretched wings and tails, seize in their talons the backs of long-tailed and squatting quadrupeds (calves?). Two additional motifs complete the field: a rosette and a crescent, as well as a coiled serpent with a triangular head which appear respectively between the wings of the two birds of prey. This scene is repeated twice, on 12.5 cm long. Such an iconographic theme is totally alien to Dilmun and, according to Olijdam (2008: 275-6), predatory birds with unfolded wings attacking an animal remain exceptional in late 3rd and 2nd millennium iconography in the whole Near East. Conversely, such a scene is frequent in the Oxus/BMAC repertoire, as well as the snake motif (associated or not with it). The detailed execution of some features of the birds of prey (eagles?), as the detailed anatomy of their unfolded wings, for example, strongly suggest a first-hand knowledge of these animals by the seal-cutter, an observation which could strengthen a Bactrian origin for the seal associated with the Failaka impression. More generally, such a scene where animals are engaged in an antagonist relationship could reflect the ideological hierarchical system which seems to characterize the BMAC iconography (Olijdam 2008: 276-7; cf. also Francfort 1994: 406ff; 413, Table 2).

- Soft stone containers

Several such chlorite artifacts, often small in size, discovered in the Gulf are clearly foreign to the local production and related to types produced by the Oxus civilization.

This is the case of a small squarish vial discovered in the 1960s on the site of Al-Rufay'a, Tarut island (Saudi Arabia) (**Fig. 22.9**). Though wrongly attributed to the Hellenistic phase in the original publication, its dating to the Bronze Age and its Central Asian origin does not make any doubt today (Zarins 1978: 70, no. 584; see also chap. 9, this volume). We owe its correct identification to S. Salvatori who convincingly related it to his own type E (2003: 724-725, Tab.1 – wrongly labeled “F”– and Fig. 1; 2008: 83, Table 6.1 and Fig. 6.2) while comparing this small container with examples from Bactria (see, for example, Pottier 1984: Fig. 20,152-3).

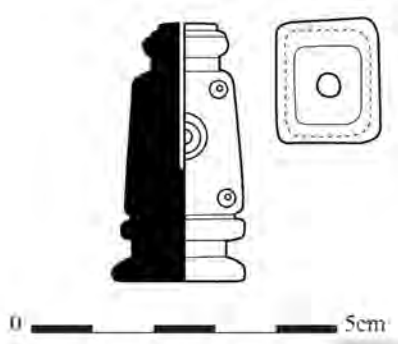


Fig. 22.9 — Cosmetic vial from Al-Rufay'a, Tarut island, Saudi Arabia
(Drawing : J. Marchand, after Zarins 1978: 70, no. 584)



Fig. 22.10 — Cubic shaped chlorite bottle/vial from Al-Maqsha (Bahrain)
(courtesy of the Bahrain National Museum)

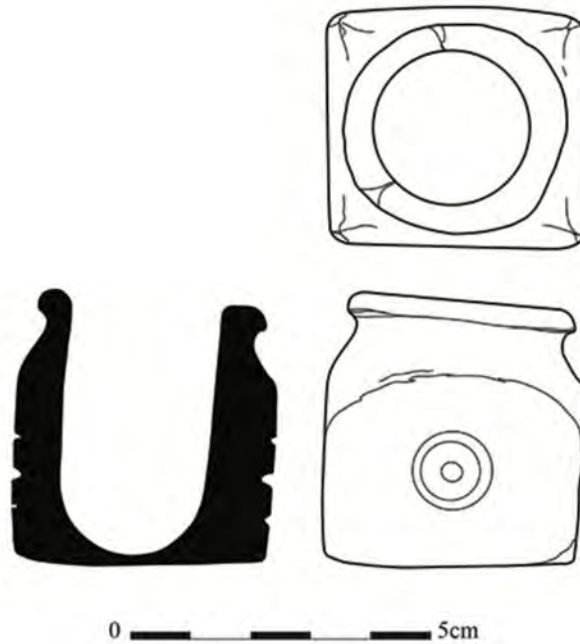


Fig. 22.11 — Cubic shaped chlorite bottle/vial from Hili North (Abu Dhabi, U.A.E.)
(Drawing : J. Marchand, after David 2002, Fig. 11, 7)

Two other stone vessels have been found at either end of the Gulf and may have been imported from Bactria. One was discovered in the northern part of Bahrain in an Early Dilmun grave at Al-Maqsha (Lombard ed. 1999: 97, no. 95; Potts 2008: 171, fig. 8). The other in the Al-Ain area (Abu Dhabi, United Arab Emirates) in Tomb A at Hili North (Cleuziou and Vogt 1985: fig. 4.5 ; Vogt 1985: Pl. 28, 11-12; During Caspers 1994b: 37, 41, Fig. 7; *id.* 1996: 49; David 2002: 181 and fig. 11; Potts 2008: 170-171, fig. 9-10). Both of

them belong to the same type, i.e. a small cosmetic (?) cubic-shape bottle, with a constricted circular rim (cf. Type B2 in Salvatori 2003: 724, Fig. 1; 2008: 83). The first specimen (**Fig. 22.10**) is decorated on its four sides with a combination of three incised dotted circles, while the second one (**Fig. 22.11**) displays a simpler pattern (a unique dotted circle on each side). These two miniature vials are clearly distinguishable from the usual production of chlorite vessels from the Oman Peninsula, sometimes exported to Bahrain. While the latter are generally characterized by very visible interior marks of carving and chiseling, these two cosmetic bottles reveal internal traces of drilling and lathe-turning. It is clear that these are alien to the Gulf sector and therefore imported. It is on this basis that S. Cleuziou and B. Vogt (1985: 255-7) first suggested an import from Central Asia, later validated by During Caspers (1996: 49; see also chap. 9).

- Ivory

The site of Tell Abraç in the United Arab Emirates has delivered several ivory combs, a rather rare artifact in the Middle East, most of them being discovered in the Indus Valley in Mature Harappan contexts and a few others in the BMAC area. Two of these artifacts were found in 1993 and 1998 in the Late Umm an-Nar collective tomb situated about ten meters West of the fortress (Potts 1993; 1994: 620-2, fig. 53.6-8 ; 2000: 126-7 ; During Caspers 1996: 51-2 and Pl. IV). They display a specific incised decoration that D. Potts clearly associates with the Central Asian iconography. The patterns consist of two long-stemmed flowers (interpreted as tulips), with three petals and wavy leaves; one may note that the petals of this flower are shown closed on the second specimen. On the most complete comb (**Fig. 22.12**), the composition also includes three dotted circles. This “tulip”-pattern observed at Tell Abraç never appears on the similar Indus combs. Potts (1994: 593) proposes to compare them with similar pair of long-stemmed flowers reproduced on a group of soft-stone vessels coming from the Kabul antique market and first published by M.-H. Pottier (1984: 84, pl. 20, 150) (see also chap. 9, this volume). The convergence noted by D. Potts is actually striking, and is also validated by Teufer (2007: 203) who devoted a thorough study on this particular iconographic theme. The flower species *Tulipa montana* Lindl., the natural range of which expands from South Turkmenistan to Iran – thus covering ancient Bactria and Margiana – could have directly inspired the decoration of the Tell Abraç combs.

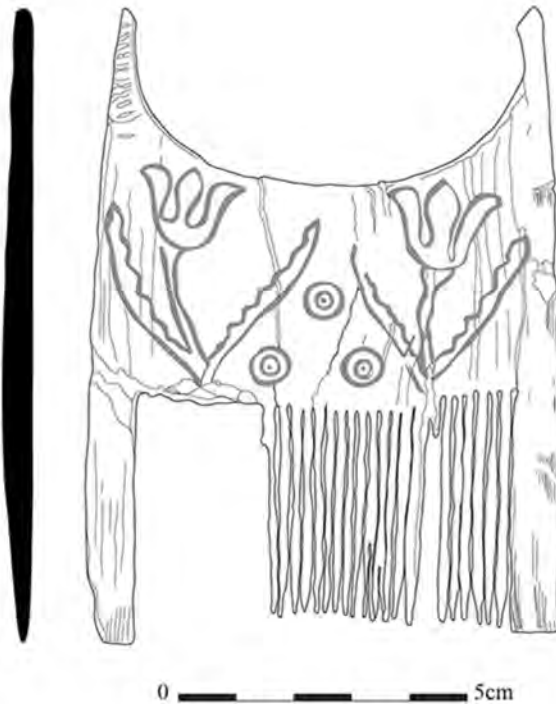


Fig. 22.12 — Ivory comb, with incised decoration from Tell Abraq (Sharjah, U.A.E.)
(Drawing : J. Marchand, after Potts 2008: 172, Fig. 13)

2. A disputed case: the deposits from the Barbar Temple II at Bahrain

Other artifacts have regularly entered the debate on the relationship between the Oxus and the Arabian Gulf region.

As is known, the Dilmun culture has mainly been characterized thanks to the emblematic excavations made at Bahrain on the Barbar Temple with its different phases: they have deeply marked the historiography of the regional research on this culture. The diggers have proposed to date this building between ca. 2100-2050 BC (Temple I), 2050-1900 BC (Temple II) and 1900-1800 BC (Temple III), but radiocarbon dates now rather push these dates several decades earlier⁵ (see the Appendix at the end of the volume).

This architectural complex, discovered and excavated between 1954 and 1961 by the Danish Moesgaard Museum Expedition, under the successive direction of P.V. Glob, P. Mortensen and H.H. Andersen, has been the subject of several stratigraphic re-interpretations and chronological revisions in the last thirty years. The comprehensive and final publication (Andersen and Højlund 2003a, 2003b) describes several phases of a building organized around a central elevated platform with two neighboring altars equipped with drains, and connected by a processional staircase to a (sacred?) pool built around a freshwater spring at

the West. This central structure is connected to the East to an oval-shaped courtyard, probably used as a place for slaughtering sacrificed animals. Both Temples I and II clearly illustrate this tripartite plan, which seems to evolve and become simpler in Temple III very poorly preserved, unfortunately. The various artifacts discussed further have all been found below the floor level of the Central Platform, some of them grouped together in a structure described as a “pit for offerings”. We will see how their connection with Central Asia proposed by several scholars has changed through time and now seems rather weak.

The copper bull's head

The Early Dilmun bull's head from Barbar has now become the most famous and iconic piece of the Dilmun material culture (**Fig. 22.13**). It was found c. 50 cm below the floor of the central, trapezoidal platform of Temple II, together with a deposit of rectangular copper plates inlaid with several rows of nails (Andersen and Højlund 2003a: 109; 268). This head, apparently molded in one piece, (*ibid.*: 265-266, fig. 698; cf. also Aruz and Wallenfels 2003: 311, cat. 206), is about 18,10 x 15 cm (max. height and width of the curved horns).



Fig. 22.13 — Copper bull's head from the Barbar Temple (Bahrain)
(courtesy of the Bahrain National Museum)

As early as 1974: 167, M. Tosi had proposed to compare this piece with another bull's head discovered by V.M. Masson in 1972 in the collective "priestly sepulcher" of Excavation 7 at Altyn Depe (Masson 1973: 114; 1976: 16-8 and pl. I, a; 1981: 64-71 and pl. XXIII; Kohl 1984: 130-1; cf. also Aruz and Wallenfels 2003: 356, cat. 249). In so doing he refuted Inez During Caspers' first studies (1971: 222) where she had proposed "a Sumerian ED I period prototype" for this representation. However his proposal has never really convinced us since these two animal heads differ so widely in many of their stylistic elements. Masson himself, in his final publication of Altyn Depe, if he does mention at length the Barbar's discovery, which he also considers to be the closest analogue to the Altyn Depe head (Masson 1988: 75-6), also highlights their differences. Indeed, they are significant. If the dimensions of the two artifacts are close, the materials differ: Altyn Depe's piece is in gold, with silver horns and with turquoise inlays for the eyes and on the front while the Barbar head is in copper. The points of stylistic convergence are also not as obvious as peremptory said by Tosi or more cautiously suggested by Masson. Moreover, the Barbar copper head presents very peculiar features which in no case appear on that of Altyn Depe. This concerns notably the shape of the horns, or that of the ears, and the place and way they are incorporated to the head: at Barbar they are molded in one piece with the support while at Altyn Depe they are attached on it. Barbar's depiction also has a kind of curly fringe on top of the animal head that is absent at Altyn Depe and it does not reproduce either the specific eyebrow treatment observed on the Margiana bull's head. The only common elements in the two pieces, which clearly distinguish them from Mesopotamian models, are the flatness of the animal's muzzle, the rendering of the nose ("as if it were a pig's snout" cf. During Caspers 1971: 222), as well as the specific frontal position of the eyes, most probably also inlaid at Barbar, while they are usually placed in lateral position on the Mesopotamian Early Dynastic examples.

Rather than a direct relationship between Turkmenistan and Bahrain in this particular case, it seems then wiser to consider that both pieces are the result of two local productions both influenced by their pertaining to a common Middle Asian Interaction Sphere network, an opinion already suggested by Inez During Caspers (1976: 32). The pair of gold pendants featuring bulls, found in a probable grave exposed during public works in Quetta (Pakistan) and associated with Mergharh VIII pottery (Jarrige ed. 1988: 124, cat. 153-154), could also belong to the same multicultural network at the beginning of the 2nd millennium BC. One will recall, finally, an earlier suggestion made by D. Barnett (1969: 101, footnote 23) who thought that the Barbar bull's head could have been fixed on the sound-box of a musical instrument, like the Ur Royal Cemetery famous lyres; if exact, this would strengthen the existence of

connections between the Barbar bull head and Mesopotamia where undoubtedly the best comparisons for the shape of its horns are to be found (Zettler and Horne 1998: 63, cat. 9). Metallographic analyses of this artifact do confirm a rather pure copper with a few other elements present as impurities, notably arsenic and nickel, which indicate a profile close to the Omani copper, generally imported as bun-shaped ingots to Dilmun (Andersen and Højlund 2003a: 282; 2003b: 19).

The “copper” mirror’s handle

Despite its laconic publication in H. Andersen and F. Højlund’s final monography of the Barbar Temples excavations (2003a: 262, 264 and Fig. 696), a male figurine, apparently made of copper, and found in the “Pit for offerings” in the Temple II platform floor has also been the topic of recurrent debates for many years (Glob 1954: 148, fig. 6; Rao 1970; During Caspers 1973; *id.* 1992: 10 and Pl. 7a-b; *id.* 1994: 43-4; *id.* 1996: 51; Potts 1983: 131-2; *id.* 1990: 205, note 84; *id.* 2008: 168; cf. also Aruz and Wallenfels 2003: 309, cat. 205).

The piece features a standing nude male character with shaved head, eyes staring forward, and two hands clasped at the breast in a traditional Mesopotamian attitude of worship (**Fig. 22.14**). Due to the particular device present below the feet of this male representation – a fan-shaped base cast in one piece with the figurine, with two rivets/holes – this piece has rightly been interpreted as a mirror’s handle by Rao (1970: 218), who compared it with a copper/bronze mirror from Mehi (Southern Baluchistan), discovered by Sir Aurel Stein in the late 1920s. We have to admit that Rao’s proposition, validated a few years later by During Caspers (1973) was not surprising in the general context of rarity of copper mirrors in the Ancient Near East (outside Egypt) at that time. Ten years later, while reviewing several aspects of the archaeological and historical researches on Barbar, D. Potts proposed another perspective (1983: 131-2). Taking into consideration the growing material evidence of mirrors with anthropomorphic handles found usually in burial contexts in the BMAC area, for instance at Sapallitepa in grave 41 (Askarov 1973: pl. 25,14 and pl. 32,14), or from looting in Bactria (Sarianidi 1977: 78-9 and fig. 40, 2⁶; Pottier 1984: 39-40 and figs. 268-273; Amiet 1977: 115-6, fig. 19; *id.* 1986: 195, 199, 201 and figs. 162-3; Kaniuth 2006: 66-68 and figs. 10-11; Sarianidi 2008, fig. 165 left; Benoit 2010, fig. 4), he suggested that this type of artifact probably originated in Bactria, and that a direct link could exist between this production and the Barbar specimen. Interestingly, at the time of the first discoveries, V. Sarianidi (*ibid.*) had considered that these handled mirrors may have originated in Iran since similar ones were known in Luristan. No such artifact has been found up to now in Margiana (N. Dubova

personal communication; cf. also Salvatori 2008: 81-2, for a general discussion about Bactrian mirrors).



Fig. 22.14 — Copper mirror's handle from the Barbar Temple (Bahrain)
(courtesy of the Bahrain National Museum)

If the Barbar piece effectively displays a certain stylistic convergence with the Bactrian examples, some important differences are also obvious. In the case of the Bactrian mirrors, the anthropomorphic handle generally reproduces a (very) stylized female silhouette whose head, absent, is in fact replaced by the functional, circular part of the mirror, reflecting the face of her user. The fact that the Barbar mirror's handle is actually arranged in the opposite position can no longer play the same role. Moreover, much more than a simple sketch of human representation as on the Bactrian pieces, this handle depicts a perfect figurine in the round, with careful modeling and precise iconographic details. Here we should recall During Caspers' first comments (1973: 129) where she highlighted the proximity of this figurine with the Sumerian stylistic canons of the Early Dynastic III and Early Akkadian statuary. As for the previous – and contemporaneous – bull's head discussed above, such a relationship still appears wiser today. The Barbar mirror handle should thus be considered, in our sense, as a new example of a typical “multicultural production” from Dilmun. However, we must notice that the metallographic analysis of this piece revealed an unusually high percentage of tin (over 10%), which would make it, in this case, a real “bronze” (Andersen and Højlund 2003a: 282). This composition, which remains exceptional for Bahrain's Early Dilmun phase, is

however strangely not confirmed in the table of metal analyzes reproduced in the volume of appendices of these same authors (Andersen and Højlund 2003b: 19).

The alabaster vessels

The last group of artifacts found in the same Central Platform of Bahrain Barbar Temple II worthy of discussion is a series of alabaster vases (four complete, and numerous fragments). They were discovered in a clearly disturbed context since fragments of one of them were lying in different sectors (Andersen and Højlund 2003a: 91-4 and 109, fig. 129) (**Fig. 22.15**). Analyses have since then pointed out that some of these vessels are not made of alabaster (gypsum), but of very pure calcite, as is the case for the majority of the so-called “alabaster” vessels from the Ancient Near-East (Casanova 1991: 15). The provenance of these containers, of various shapes, has been the subject of many comments: Egypt, Southern Babylonia, Eastern Iran (Glob 1954: 153, note 8; Glob 1959: Fig. 2-4; Mortensen 1971: 391, fig. 7, 394; Howard Carter 1972: 22, footnote 19; Casanova 1991: 34 and footnote 38; *ibid.* 44 and footnote 81; *ibid.* 72 and 88; *id.* 2003), as well as Central Asia. This last potential source was notably suggested by H. Crawford and Kh. Al-Sindi (1995: 3) but without convincing arguments and it has been reiterated more cautiously by D. Potts (1983: 129-131). As a matter of fact, Bahrain National Museum (BNM) items A19059 and A19057 (cf. Fig. 22.15, first and second from left) have their counterparts in Babylonia, mainly at Ur, as already mentioned a long time ago by P. Glob and P. Mortensen (*op. cit.*; see, for example, the proximity between BNM A19059/Danish ref. 517.YL and Woolley 1934: pl. 178c, pl. 241: 5) and as completed by T. Howard Carter (*op. cit.*). This kind of vessels actually seems to be quite frequent according to M. Casanova (1991, types IVa and IVc: 33-34, footnotes 37, 39; fig. 3/pl. 3: 41, 46 and fig. 4/pl.4: 48-9), especially in Egypt (Aston 1994: 80, fig.9) and in Iran. In this last region several specimens have been recovered from the clandestine digging at Jiroft (Majidzadeh 2003: 145, 146) and complete their well-known occurrence at Susa, Shahdad or Shahr-i Sokhta II-III. They are also known in Central Asia where M. Casanova however limits her comparisons to a few cases at Mundigak IV (Casal 1961, fig. 134: 22) and in Southern Bactria (Amiet 1977: fig. 7:1, 3; Pottier 1984: pl. LXIV: 356-357, LXV:361; LXVI: 369), mentioning also examples “from Ulug Depe and Altyn Depe” without more details (Casanova 2003: 284). We can add several additional cases coming from BMAC contexts: from the Quetta Hoard already mentioned (Jarrige and Hassan 1989, fig. 2, three different items); from the same Grave 3245 at Gonur “Royal Necropolis” discussed above where one of the alabaster vessels appears close to this type (see Fig. 22.5) and is moreover copied in

metal; or from recent Antique market finds (Vidale 2017: 60-1, fig. 52). These discoveries confirm that this shape was known both in Western and in Central Asia.



Fig. 22.15 — Alabaster/calcite vessels from the Barbar Temple (Bahrain)
(courtesy of the Bahrain National Museum)

The shape of the third Barbar vessel (alabaster *pyxis* BNM A19058/Danish ref. 517.BX, cf. Fig. 22.15, third from left) appears much more original and has no convincing parallels: the only comparison suggested by P.V. Glob (1954: note 9) with a lidded jar from Ur (Woolley 1934:100, pl. 250) appears inadequate today due to the external shape of the Ur piece and the attachment system of its lid, while another suggested by Casanova (2003: 284) with a pentagonal *pyxis* from Mundigak (cf. Casal 1961: 234, fig. 134,15) seems even less proper, in our view.

Nevertheless, if there is no doubt that these alabaster/calcite vessels are found within all this vast geographical area, we have no real clue, up to now, as to where they were actually produced, though eastern Iran/Baluchistan might be the best production center due to the abundance of finds there. The BMAC area hardly can be considered as another center of production: the alabaster containers found there are either limited in size (Amiet 1977: 97, fig. 7; Vidale *ibid.*), or have very specific shapes (Sarianidi 2005: 243, fig. 102; Jarrige and Hassan 1989, fig. 2; Bendezu-Sarmiento and Lhuillier 2016: 526, fig. 4-5; see also chap. 13, this volume, Fig. 13.8).

To sum up, as proposed by M. Casanova in her final study of the Barbar vases (2003: 288), an eastern Iranian origin is most likely for this material.

3. Clay and metal pedestaled goblets from the Gulf: a particular case

The last category of material to be discussed here has, since the early 1970s, first attracted the attention of Inez Doring Caspers and led her to more closely examine a possible Central Asian influence on the Gulf area.

Pedestaled goblets of various sizes and slightly different shapes, generally in clay but also in copper/bronze for a few examples, are regularly reported in old and ongoing excavations in the Gulf area, and more generally in the Eastern Arabian Peninsula. They have been discussed at several occasions by various scholars (Doring Caspers 1989: 19-20, 1992: 6-9, 1994b: 34-40, 1996: 49; Lombard ed. 1999: 96, 99; Potts 2000: 126-7; *id.* 2008: 169, 173-4; Aruz and Wallenfels 2003: 312).

Clay pedestal-goblets

We will first focus here on the most distinctive of these goblets, i.e. the pottery ones. They are rather numerous on Bahrain island, where they have been discovered at A'ali in 1962 (Højlund 2007: 55-56, Figs. 69-71), Qal'at al-Bahrain during the late 60s (Højlund and Andersen 1994: 93, Figs. 194-196), Hamala North in 1968 (Doring Caspers 1972; 1972-1974; 1980, footnote 24; 1994b: 34-35 and fig. 2), Saar in 1978 (Ibrahim 1982: 32, Fig. 38: 1-3, Pl. 49: 1-3; Lombard ed. 1999: 64, cat. 36-36; 96, cat. 92), Janabiyah (2018 unpublished rescue excavation) and at a site without location (Doring Caspers 1994: 34 and Fig. 1, center – wrongly labeled as coming from Saar). All these vessels, recovered from the traditional burial mounds of the Early Dilmun phase of Bahrain are dated (still conventionally as mentioned in endnote 5) between ca. 1950 and 1800 BC.

In the Eastern Province of Saudi Arabia, three specimens come from the Dhahran tumuli attributed also to the Early Dilmun phase (Zarins 1989, fig. 13: 6, 12, 18) while one was recovered in 1998 from the Late Umm an-Nar grave at Tell Abraq, U.A.E. (Potts 2000: 127; 2008: 173-4, Figs. 17-18).

It is also possible, finally, that a few fragments from Failaka (Kuwait) belong to a similar type of vessel (Højlund 1987: 31-2, fig. 80).

When they are entirely preserved or give a complete profile, these pieces all display a similar overall shape, i.e. a round, ovoid or tulip-shaped goblet with a simple beaded rim on top of a small to medium height foot. The numerous specimens from Bahrain show that they were wheel-turned and made in a rather fine red-brick or grey ware, generally sand-tempered,

sometimes burnished on the surface. Their fabric, which sometimes slightly differs from one vase to the other, is unquestionably distinct from the usual local one, and points to their probable importation. Unfortunately, no clay analysis has ever been done on any of them to try to figure out where these vases could have been produced.

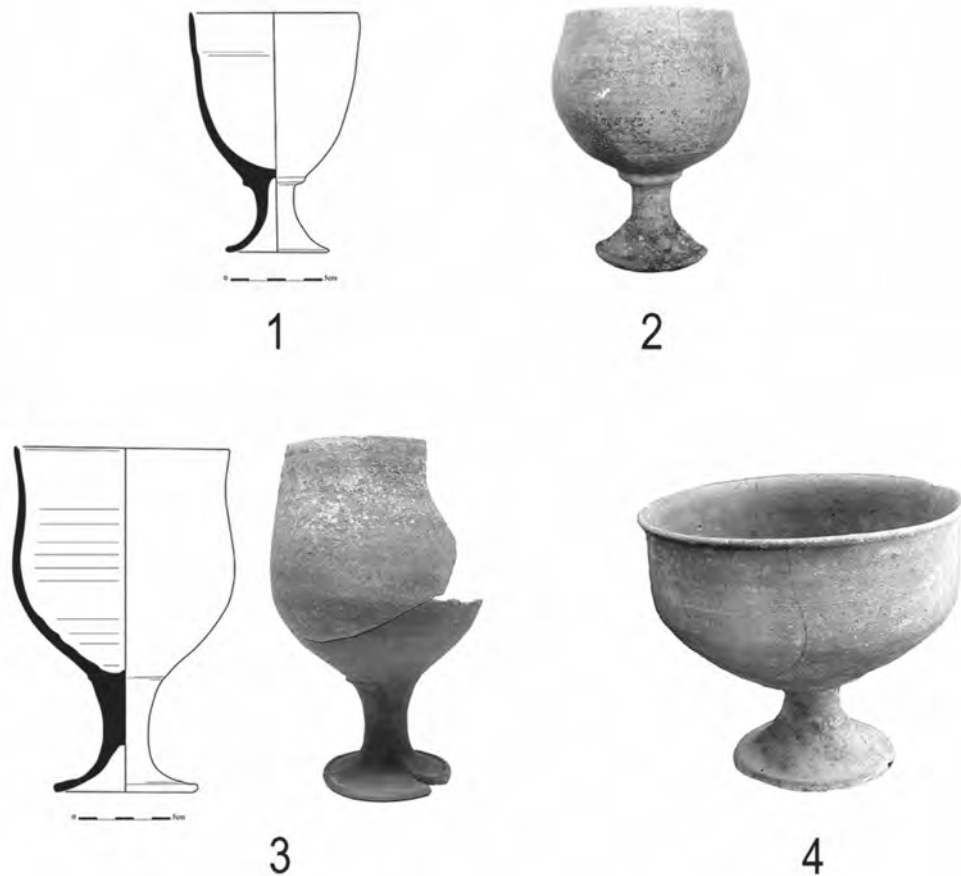


Fig. 22.16 — Unpainted pedestal-pottery vessels from the Arabian Gulf :
1: Saar (Bahrain) (*drawing J. Marchand, after Ibrahim 1982, Fig. 38, 3*); **2:** unlocated site (Bahrain); **3:** Janabiyah (Bahrain) (*courtesy of the Bahrain National Museum*); **4:** Tell Abraç (Sharjah, U.A.E.) (*from Potts 2008: fig. 18*).

A comparison of their shape with the productions from Central Asia shows obvious parallels and can easily explain During Caspers' first analyses. This is for instance the case for the goblet in fine grey ware from Saar tumulus S100 (Ibrahim 1982, fig. 38: 3), with its characteristic ring in relief at the junction between its hollow pedestal and the container (**Fig. 22.16, 1**), which has a similar shape as vases from the cenotaphs of Sibri/Mehrgarh VIII, long ago recognized as connected with the Oxus/BMAC civilization (Santoni 1984: 52-4, fig. 8: 1; Jarrige ed. 1988: cat. 131; Jarrige *et al.* 1995: 356, fig. 7:27) or at Nindowari III (a site related to the contemporary Kulli B culture (Jarrige *et al.* 2011, fig. 11, 18). Another quite large

specimen from Bahrain (height ca. 17.3 cm), found in 2018 in a still unpublished tumulus at the Janabiyah site, is made in a red fine fabric alien to Bahrain (**Fig. 22.16, 3**), and can be confidently compared to quite similar shapes from Togolok 21 (Pyankova 1989: fig. 6), Gonur 1 (Sarianidi 1990: pl. XIII: 7; Sarianidi 2007: 58, type 3.8 according to Udeumurov), Dashly 1 and 3 (Sarianidi 1976: fig. 18, 4; fig. 33, 9; fig. 34, 23; 1977: 64, fig. 26,1) or Sapallitepe (Askarov 1973, tab. 15, 5, 10-12; tab. 16, 2, 3, 9-10, 12-13). Such *comparenda* also convincingly apply to a last Bahraini goblet, from an unlocated Early Dilmun burial mound (**Fig. 22.16, 2**). The large “chalice” from Tell Abraq in the U.A.E. (**Fig. 22.16, 4**) has a different profile (Potts 2008: figs. 17-18), but is nevertheless also close to examples from Bactrian sites (Sarianidi 1976: fig. 25, 1) and more so to a shape from Tepe Yahya VIB4-2 (Potts 2001, fig. 3.19 bottom left).

Though their shape makes them rather fragile, we cannot exclude that such undecorated pieces constituted true imports from the BMAC or BMAC-related region. However, this kind of vessel is not limited to Central Asia, though far less represented: they are present for instance at Tepe Yahya in level IVB6 (Potts 2001, fig. 3.14, i-j) and IVB4-2 (*ibid.* fig. 3.19) and also known made of soft stone in the Jiroft area (Perrot and Madjidzadeh 2005: 126, fig. 3e, 127, pl. 1: a-e).

Beside the plain pottery vessels discussed above, several of the goblets discovered in the Dilmun area display a painted geometric or naturalistic decoration (usually black or dark red, either on a red or yellow slip or directly on the red clay). It goes from simple groups of vertical and horizontal lines (Dhahran tumuli, **Fig. 22.17, 1-3**), herringbone or cross-hatched linear patterns (Saar, **Fig. 22.17, 5-6**), cross-hatched upturned triangles (A’ali, **Fig. 22.17, 7-8**) to cross-hatched “butterflies” associated with clusters of geometrical leaves (Hamala North, **Fig. 22.17, 4**), or frieze of caprids associated with hatched bands and triangles (Qal’at al-Bahrain, **Fig. 22.17, 9**, and possibly Failaka). Painted decoration is extremely rare on the overall Bactria or Margiana pottery production, and only represented by simple horizontal dark bands on a red background probably under the influence of the Indus Civilization. On the opposite, painted pottery vessels are quite frequent in the Dilmun material culture, either imported from the East (Baluchistan, South-Eastern Iran or Indus) or locally made, and sometimes illustrate similar patterns. It can thus be proposed that these goblets are hybrid productions where a Central Asian shape is painted in the local fashion.

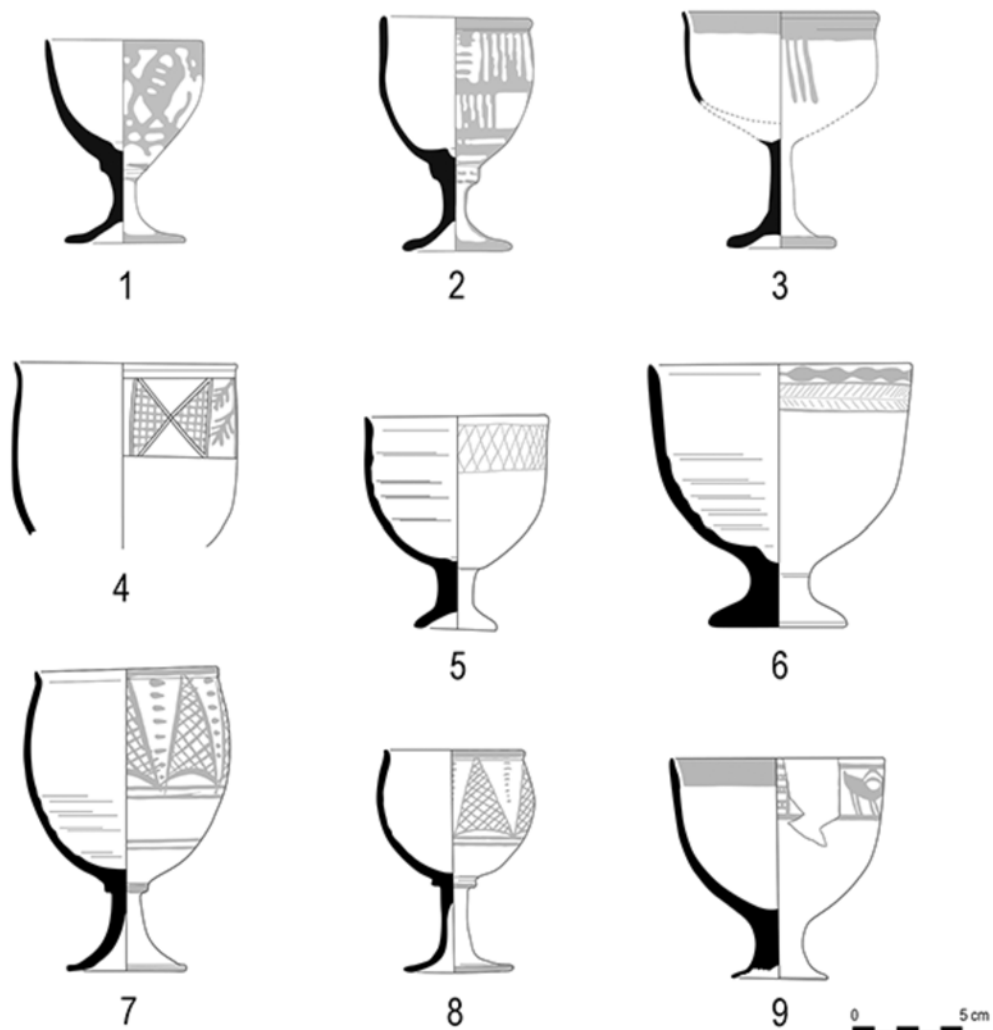


Fig. 22.17 — Painted pedestal- pottery vessels from the Arabian Gulf :
1-3: Dhahran (Saudi Arabia); **4:** Hamala North (Bahrain); **5-6:** Saar (Bahrain); **7-8:** A 'ali (Bahrain); **9:** Qal'at al-Bahrain.
*(Drawing J. Marchand, after Zarins 1989, fig. 13, 6, 12, 18 ; During-Caspers 1994b, fig. 2 ; Ibrahim 1982, Fig. 38, 1, 2);
Højlund 2007, Fig. 70-71); Højlund and Andersen 1994: Figs. 194-196).*

Finally, a unique vase from Bahrain, discovered during the 1988 season of excavations at Saar (tumulus 140, cf. Lombard ed. 1999: 99, cat. 98; Aruz and Wallenfels 2003: 312, cat. 207) deserves attention. This masterpiece from the Bahrain National Museum (A7050) belongs to the same type of goblets discussed above but is characterized by a very fine red clay, a concave strongly carinated shape – ending with a flat bottom – of the upper bowl, as well as by a peculiar geometric bichrome painted decoration (**Fig. 22.18**). The profile of this vase does recall types from several BMAC sites like Dashly 3 (Sarianidi 1976, fig. 37, 4-9; fig. 40, 13) or the Large Gonur necropolis (Sarianidi 2007: 65, fig. 29, top right), or from related sites like Khurab in Baluchistan (Stein 1937, pl. XXXII, 19) though all these vases have a less

pronounced carination at the base of the container. Its painted decoration, nevertheless, prohibits considering any import from Central Asia and points rather at a production from Baluchistan where such dense and bichrome motifs are frequent in the Kulli B culture (Jarrige *et al.* 2011, fig. 30 for instance). Actually, the closer contemporary parallels to our vase are alabaster vessels found also in BMAC funerary contexts at the Gonur Necropolis (Sarianidi 2007: 112, fig. 196), at Ulug Depe (Bendezu-Sarmiento and Lhuillier 2016: 526, fig. 4, 5-7), in the Quetta Hoard (Jarrige and Hassan 1989, fig. 2), or in the looted graves from Bactria (Pottier 1984, fig. 29, 217, 218). Another close shape also coming from a Gonur grave is made of chlorite and heavily decorated, but the bowl is not as deep as in our case (Sarianidi 2007: 112, fig. 198).



Fig. 22.18 — Painted pedestal- pottery vessel from Saar (Bahrain)
(courtesy of the Bahrain National Museum)

We also have to mention here that, beside comparisons with BMAC or related sites, our vessel also finds parallels with earlier pedestalled vases like the chalice found at Mehrgarh VII in grey ware with a red slip considered to be a possible import from North-Eastern Iran (Jarrige ed. 1988: 108, fig. 115), or a similar other grey one coming from a grave at Parkhai 2 in the Sumbar Valley (Khlopin 2002: 303, 11) contemporary with the Namazga IV period (ca. 2500 BC). These last examples are however much too early for the Gulf vessels.

Copper/bronze pedestal goblets

Interestingly, pedestal-goblets are also attested in copper/bronze and a few of these were also found in the Arabian Gulf. Most of them come from Bahrain. They are also known in rich graves of the BMAC area, usually in silver (Sarianidi 2008: 271). Their shape is very similar to the pottery ones and we do not know which copied the other.

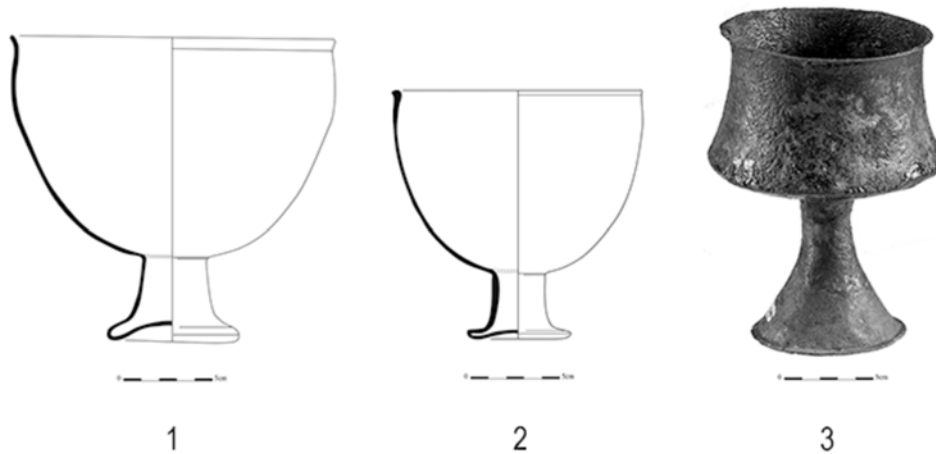


Fig. 22.19 — Copper pedestal-vessels from the Arabian Gulf :
1: Hamalah North (Bahrain); 2: Asimah (Ras al-Khaimah, U.A.E.). (*Drawing J. Marchand, after During Caspers 1992: Fig. 3b; Vogt 1994, Fig. 54, 3*). 3: Madinat Hamad (Bahrain) (*courtesy of the Bahrain National Museum*).

At Bahrain, the largest one (H: ca. 18 cm, and diameter ca. 21 cm) was found during amateur excavations in the tumulus of Hamala North in 1968 (During Caspers 1992: 8-9, and fig. 3b): it has a globular bowl with slightly everted rim, and a large hollow pedestal (**Fig. 22.19, 1**). A quite similar vessel but of smaller size (**Fig. 22.19, 2**) was recovered from the “Alignment A” Grave 2 at Asimah, Ras al-Khaimah Emirate; its excavator does not exclude an eventual importation from Central Asia, and validates During Caspers’ analysis of the Hamala North specimen (Vogt 1994: 129, fig. 54, 3, pl. 18c). The last vessel worth of mention here is a very close metal version of the pedestalled beaker A7050 from Bahrain National Museum, discussed above (A 21213 found in Madinat Hamad, **Fig. 22.19, 3**); both pieces could thus share the same provenance. Unfortunately no metallographic analyses were carried out on these copper/bronze items up to now.

Conclusion

This short study underlines a rather limited manifestation of a direct circulation of artifacts between the BMAC and the Gulf. Nevertheless, this observation should not underestimate the existence of more or less regular but indirect contacts between these two regions during the first quarter of the 2nd millennium BC. If most of the BMAC-related artifacts come from graves, none of them contains exclusively this material as is the case in several tombs of eastern Iran or Baluchistan (see chaps. 19 and 20). In the Gulf, these Central Asia products are always mixed with local ones and we can therefore dismiss the idea of the presence there of a BMAC group of people. Artifacts, techniques or artistic traditions peculiar to each of the two areas have been pointed out. In the Gulf, this is especially visible in the introduction of some of the new pottery shapes. Most of the time, however, real imports seem exceptional and we are mostly dealing with hybrid products where a strong assimilation of the foreign tradition leads to a local production with adapted features.

Some artifacts certainly came through the Indus Valley (cf Pott's 2008 the "Meluhhan trajectory") which was related with the BMAC at one end and had developed special maritime connections of long duration with the Gulf at the other. Goods may also have come from Southeastern Iran or Baluchistan/Magan, i.e. on a longer pedestrian road, but little is known of the Iranian coast except for the port of Liyan/Bushir. It is highly probable that these artifacts hide a far more important circulation of other goods that have now disappeared, spices, textiles, semi-precious stones, metals among which tin, etc. (cf notably Kohl and Lyonnet 2008: 37-40, or Kaniuth 2010).

The great number of new excavations in the Gulf, now all precisely dated and associated with analyses of all kinds should help in bringing other data based on firmer ground to answer these questions.

References

- Al-Sindi, K. 1999. *Dilmun Seals*, Part One. Bahrain: Ministry of Cabinet Affairs and Information & Bahrain National Museum.
- Amiet, P. 1977. "La Bactriane proto-historique". *Syria* 54: 89-121.
- Amiet, P. 1986. *L'âge des échanges inter-iraniens, 3500-1700 avant J.-C.* Paris: Réunion des musées nationaux.
- Andersen, H.H. and F. Højlund 2003a. *The Barbar Temples*. Højbjerg: Jutland Archaeological society.
- Andersen, H.H. and F. Højlund 2003b. *The Barbar Temples. Appendices*. Højbjerg: Jutland Archaeological society.

- Askarov, A. 1973. *Sapallitepa*. Tashkent: Fan.
- Aston, B.G. 1994. *Ancient Egyptian Stone Vessels. Materials and Forms*. Studien zur Archäologie und Geschichte Altägyptens, Band 5. Heidelberg: Heidelberg Orientverlag.
- Aruz, J. and R. Wallenfels (eds.) 2003. *Art of the First Cities: The Third Millennium BC from the Mediterranean to the Indus*. New York: Metropolitan Museum of Art.
- Barnett, R.D. 1969. "New facts about musical instruments from Ur". *Iraq* 31(2): 96-103.
- Begemann, F., A. Hauptmann, S. Schmitt-Stecker and G. Weisgerber 2010. "Lead isotope and chemical signature of copper from Oman and its occurrence in Mesopotamia and sites on the Arabian Gulf coast". *Arabian Archaeology and Epigraphy* 21: 135-169.
- Bendezu-Sarmiento, J. and J. Lhuillier 2016. "Some more exceptional discoveries at Ulug-depe". In *Trudy Margianskoj Arkheologicheskoy Ekspeditsii*, 6, ed. N. Dubova. Moscow: Saryj sad, pp. 522-528.
- Bendezu-Sarmiento, J. and S. Mustafakulov 2013. "Le site proto-urbain de Dzharkutan Durant les âges du bronze et du fer. Recherches de la mission archéologique franco-ouzbèke-Protohistoire". *Cahiers d'Asie Centrale* 21/22: 207-236.
- Benoit, A. 2010. "Some thoughts on the cosmetology of the Near East during the Third Millennium B.C.: containers and contents". In *Trudy Margianskoj Arkheologicheskoy Ekspeditsii*, 3, eds. P.M. Kozhin, M.F. Kosarev and N.A. Dubova. Sankt-Peterburg: Aletejja, pp. 312-322.
- Calvet, Y. 1996. "Une empreinte de cylindre-sceau de Failaka (Koweït)". In *Collectanea Orientalia: Histoire, arts de l'espace et industrie de la terre. Études offertes en hommage à Agnès Spycket*, eds. H. Gasche and B. Hrouda. Neuchâtel-Paris: Recherches et Publications, pp. 57-64.
- Calvet, Y. 2005. "Agarum, une île de la civilisation de Dilmoun". In *L'île de Failaka. Archéologie du Koweït*, ed. G. Galliano. Lyon: Musée des Beaux-Arts, pp. 41-61.
- Casal, J.-M. 1961. *Fouilles de Mundigak*, 2 vol. Mémoires de la Délégation Archéologique Française en Afghanistan, t. XVII. Paris: Klincksieck.
- Casanova, M. 1991. *La vaisselle d'albâtre de Mésopotamie, d'Iran et d'Asie centrale aux IIIe et IIe millénaires av. J.-C.* Paris: Éditions Recherche sur les Civilisations.
- Casanova, M. 2003. "Alabaster and Calcite Vessels". In *The Barbar Temples. Appendices*. eds. H.H. Andersen and F. Højlund. Højbjerg: Jutland Archaeological society.
- Cleuziou, S. and B. Vogt 1985. "Tomb A at Hili North (United Arab Emirates) and its Material Connections to Southeast Iran and the Greater Indus Valley". In *South Asian Archaeology 1983*, eds. J. Schotsmans and M. Taddei. Naples: Istituto Universitario Orientale, pp. 255-257.
- Crawford, H. 1998. *Dilmun and its Gulf neighbours*. Cambridge: Cambridge University Press.
- Crawford, H. and K. Al-Sindi 1995. "A seal in the collections of the National Museum, Bahrain". *Arabian Archaeology and Epigraphy* 6: 1-4.
- David, H. 1996. "Styles and Evolution: Soft stone vessels during the Bronze Age in the Oman Peninsula". *Proceedings of the Seminar for Arabian Studies* 26: 31-46.
- David, H. 2002. "Soft stone vessels from Umm an-Nar tombs at Hili (UAE): a comparison". *Proceedings of the Seminar for Arabian Studies* 32: 175-185.
- During Caspers, E.C.L. 1971. "The Bull's Head from Barbar Temple II, Bahrain: A Contact with Early Dynastic Sumer". *East and West* 21: 217-223.

- During Caspers, E.C.L. 1972. "The Bahrain tumuli". *Proceedings of the Fifth Seminar for Arabian studies*: 9-19.
- During Caspers, E.C.L. 1972-1974. "The Bahrain tumuli". *Persica* VI: 131-156.
- During Caspers, E.C.L. 1973. "Sumer and Kulli meet at Dilmun in the Arabian Gulf". *Archiv für Orientforschung* 24: 128-132.
- During Caspers, E.C.L. 1976. "Cultural Concepts in the Arabian Gulf and the Indian Ocean. Transmissions in the Third Millennium and their Significance". *Proceedings of the Seminar for Arabian Studies* 6: 8-39.
- During Caspers, E.C.L., 1980. *The Bahrain Tumuli. A Catalogue of Two Important Collections*. Leiden: Nederland Historisch-Archeologisch Instituut te Istanbul.
- During Caspers, E.C.L. 1989. "Some remarks on Oman". *Proceedings of the Seminar for Arabian Studies* 19: 13-31.
- During Caspers, E.C.L. 1992. "Intercultural/mercantile contacts between the Arabian Gulf and South Asia at the close of the third millennium BC". *Proceedings of the Seminar for Arabian Studies* 22: 3-28.
- During Caspers, E.C.L. 1994a. "Triangular stamps seals from the Arabian Gulf, once again". *Proceedings of the Seminar for Arabian Studies* 24: 97-114.
- During Caspers, E.C.L. 1994b. "Further Evidence for 'Central Asian' materials from the Arabian Gulf". *Journal of the Economic and Social History of the Orient* 37: 33-53.
- During Caspers, E.C.L. 1994c. "Non-Indus Glyptics in a Harappan Context". *Iranica Antiqua* 29: 83-106.
- During Caspers, E.C.L. 1996. "Local MBAC materials in the Arabian Gulf and their manufacturers". *Proceedings of the Seminar for Arabian Studies* 26: 47-64.
- Francfort, H.-P. 1994. "The Central Asian Dimension of the Symbolic System in Bactria and Margiana". *Antiquity* 68(259): 406-418.
- Glob, P.V. 1954. "Temples at Barbar". *Kuml* 1954: 142-153.
- Glob, P.V. 1959. "Alabaster Vases from the Bahrain Temple". *Kuml* 1958: 138-145.
- Görsdorf, J. and B. Vogt. 2001. "Asimah: Neue ¹⁴C-Datierung zum späten 3. vorchristlichen Jahrtausend auf der Halbinsel Oman". *Arabian Archaeology and Epigraphy* 12: 1-9.
- Hiebert, F.T. 1994. *Origins of the Bronze Age Oasis Civilization in Central Asia*. American School of Prehistoric Research, Bulletin 42. Cambridge (MA): Peabody Museum of Archaeology and Ethnology, Harvard University.
- Højlund, F. 1987. *Failaka/Dilmun - The Second Millennium Settlements, Volume 2: The Bronze Age Pottery*. Jutland Archaeological Society Publications XVII. 2. Højbjerg: Jutland Archaeological Society.
- Højlund, F. 2007. *The Burial Mounds of Bahrain. Social Complexity in Early Dilmun*. Højbjerg: Jutland Archaeological Society.
- Højlund, F. and Andersen, H.H. 1994. *Qal'at al-Bahrain, Volume 1. The Northern City Wall and the Ismaic fortress*. Højbjerg: Jutland Archaeological Society.
- Howard Carter, T. 1972. "The Johns Hopkins University Reconnaissance Expedition to the Arab-Iranian Gulf". *Bulletin of the American Schools of Oriental Research* 207: 6-40.
- Ibrahim, M. 1982. *Excavations of the Arab Expedition at Saar el-Jisr, Bahrain*. Bahrain: Ministry of Information.
- Jarrige, J.-F. ed. 1988. *Les cités oubliées de l'Indus. Archéologie du Pakistan*. Paris: Association française d'action artistique.

- Jarrige, J.-F. and M.U. Hassan 1989. "Funerary complexes in Baluchistan at the end of the third millennium in the light of recent discoveries at Mehrgarh and Quetta". In *South Asian Archaeology 1985*, eds. K. Frifelt and P. Sorensen. Copenhagen: Curzon Press, pp. 150-166.
- Jarrige, J.-F., C. Jarrige, R. Meadow and G. Quivron 1995. *Mehrgarh, Field Reports 1974-1985 from Neolithic Times to the Indus Civilization. The reports of eleven seasons of excavations in Kachi District, Balochistan, by the French Archaeological Mission to Pakistan*. Karachi: Department of Culture and Tourism.
- Jarrige, J.-F., G. Quivron and C. Jarrige 2011. *Nindowari, Pakistan. La culture de Kulli. Ses origines et ses relations avec la Civilisation de l'Indus*. Paris: Gingko.
- Kaniuth, K. 2006. *Metallobjekte der Bronzezeit aus Nordbaktrien*. Archäologie in Iran und Turan, 6. Mainz: Philipp von Zabern.
- Kaniuth, K. 2010. "Long distance imports in the Bronze Age of Southern Central Asia: Recent finds and their implications for chronology and trade". *Archäologische Mitteilungen aus Iran und Turan* 42: 3-22.
- Khlopin, I.N. 2002. *Epokha Bronzy Jugo-Zapadnogo Turkmenistana*. Sankt-Peterburg: Institut Istorii Material'noj Kul'tury.
- Kjærum, P. 1983. *Failaka/Dilmun. The Second Millennium Settlements*. Vol. 1: *The Stamp and Cylinder Seals*. JASP XVII. Aarhus: Jutland Archaeological Society.
- Kohl, P.L. 1984. *Central Asia, Palaeolithic Beginnings to the Iron Age*. Paris: Recherche sur les Civilisations.
- Kohl, P.L. and B. Lyonnet 2008. "By Land and By Sea: The Circulation of Materials and Peoples, ca. 3500-1800 BC". In *Intercultural relations between South and Southwest Asia. Studies in commemoration of E.C.L. During Caspers (1934-1996)*, eds. E. Olijdam & R.H. Spoor. BAR International Series 1826. Oxford: Archaeopress, pp. 29-42
- Laursen, S. 2017. *The Royal Mounds of A'ali in Bahrain. The Emergence of Kingship in Early Dilmun*. Aarhus: Jurland Archaeological Society.
- Laursen, S. and P. Steinkeller 2017. *Babylonia, the Gulf Region, and the Indus. Archaeological and Textual Evidence for Contact in the Third and Early Second Millennia B.C.* Mesopotamian Civilization 21. Winona Lake: Eisenbrauns.
- Leemans, W.F. 1960. *Foreign Trade in the Old Babylonian Period*. Leiden: Brill.
- Ligabue, G. and S. Salvatori 1988. *Battriana, una antica civiltà delle oasi dalle sabbie dell'Afghanistan*. Venezia: Erizzo.
- Lombard, P. (ed.) 1999. *Bahrain, the Civilisation of the Two Seas: From Dilmun to Tylos*. Paris and Gent: Institut du Monde Arabe and Snoek-Ducaju & Zoon.
- Lombard, P. and N. Boksmati-Fattouh 2017. "Dilmun i gorizonty mezhdunarodnoj trgovli / [The Power of Trade]". In N. Koslova (ed.) *In the Land of Dilmun where the sun rises. Archaeological Treasures from the Bahrain National Museum (3rd – 1st Millenia B.C.)*. Saint-Petersburg: The State Hermitage Publishers, pp. 56-67.
- Majidzadeh, Y. 2003. *Jiroft. The Earliest Oriental Civilization*. Teheran: Ministry of Culture and Islamic Guidance.
- Masson, V.M. 1973. "Raskopki zhretseskej grobnitsy v Turkmenii". *Priroda* 3: 114.
- Masson, V.M. 1976. "Altin-Depe and the Bull Cult". *Antiquity* 50: 14-19.

- Masson, V.M. 1988. *Altyn-Depe*. University Museum Monograph, 55. Philadelphia : University Museum, University of Pennsylvania.
- Mortensen, P. 1971. "On the date of the temple at Barbar in Bahrain". *Kuml* 1970: 385-398.
- Olijdam, E. 2008. "A Possible Central Asian Origin for the Seal-Imprinted Jar from the 'Temple Tower' at Failaka". In *Intercultural relations between South and Southwest Asia. Studies in commemoration of E.C.L. During Caspers (1934-1996)*, eds. E. Olijdam & R.H. Spoor. BAR International Series 1826. Oxford: Archaeopress, pp. 268-287.
- Olijdam, E. and R.H. Spoor (eds.) 2008. *Intercultural relations between South and Southwest Asia. Studies in commemoration of E.C.L. During Caspers (1934-1996)*. BAR International Series 1826. Oxford: Archaeopress.
- Oppenheim, A.L. 1954. "Seafaring merchants of Ur". *Journal of American Oriental Society* 74: 6-17.
- Perrot, J. and Y. Madjidzadeh 2005. "L'iconographie des vases et objets en chlorite de Jiroft (Iran)". *Paléorient* 31(2): 23-152.
- Pic, M. 1990. "Quelques éléments de glyptique". In *Failaka. Fouilles Françaises 1986-1988*, eds. Y. Calvet and J. Gachet. TMO 18. Lyon: Maison de l'Orient, pp. 125-140.
- Possehl, G.L. 2002. *The Indus Civilization. A Contemporary Perspective*. Walnut Creek: Altamira.
- Possehl, G.L. 2007. "The Middle Asian Interaction Sphere. Trade and Contact in the 3rd Millennium BC". *Expedition* 49(1): 40-42.
- Pottier, M.-H. 1984. *Matériel funéraire de la Bactriane méridionale de l'Age du Bronze*. Paris: Recherche sur les Civilisations.
- Potts, D.T. 1983. "Barbar miscellanies". In *Dilmun. New Studies in the Archaeology and Early History of Bahrain*, ed. D.T. Potts. Berliner Beiträge zum Vorderen Orient, Bd. 2. Berlin: Dietrich Reimer, pp. 127-129.
- Potts, D.T. 1990. *The Arabian Gulf in Antiquity. I. From Prehistory to the Fall of the Achaemenid Empire*. Oxford: Clarendon Press.
- Potts, D.T. 1993. "A new Bactrian find from southeastern Arabia". *Antiquity* 67: 591-596.
- Potts, D.T. 1994. "South and Central Asian elements at Tell Abraq (Emirate of Umm al-Qaiwain, United Arab Emirates), c. 2200 BC–AD 400". In *South Asian Archaeology 1993*, eds. A. Parpola and P. Koskikallio. Helsinki: Suomalainen Tiedekatemia, pp. 615-628.
- Potts, D.T. 2000. *Ancient Magan: The secrets of Tell Abraq*. London: Trident.
- Potts, D.T. 2001. *Excavations at Tepe Yahya, Iran, 1967-1975. The Third Millennium*, ed. C.C. Lamberg-Karlovsky. American School of Prehistoric Research, Bulletin 45. Boston: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Potts, D.T. 2008. "An Umm an-Nar-type compartmented soft-stone vessel from Gonur Depe, Turkmenistan". *Arabian Archaeology and Epigraphy* 18: 167-180.
- Potts, D.T. 2016. *People of the Lower Sea. Magan and its Neighbours. The Archaeological Heritage of Oman*, vol. 3. Mascate: Ministry of Heritage and Culture, Sultanate of Oman.
- Pyankova, L. 1989. "Pottery Complexes of Bronze-Age Margiana (Gonur and Togolok 21)". *International Association for the Study of the Cultures of Central Asia Information Bulletin* 16: 27-54.

- Rao, M.S.N. 1970. "A bronze mirror handle from the Barbar temple, Bahrain: A further link with the Kulli Culture - south Baluchistan". *Kuml 1969*: 218–220.
- Salvatori, S. 2000. "Bactria and Margiana Seals: A New Assessment of Their Chronological Position and a Typological Survey". *East and West* 50: 97-145.
- Salvatori, S. 2003. "Spunti per una definizione dei sistemi di relazione tra l'Iran orientale e l'Asia Centrale meridionale. I flaconi per cosmetici clorite: Distribuzione e variabilità". In *Studi in onore di Umberto Scerrato per il suo settantacinquesimo compleanno*, eds. M.V. Fontana and B. Genito. Naples: Università degli Studi di Napoli 'L'Orientale', pp. 721-734.
- Salvatori, S. 2008. "Cultural Variability in the Bronze Age Oxus Civilisation and its Relations with the Surrounding Regions of Central Asia and Iran". In *The Archaeological Map of the Murghab Delta II. The Bronze Age and Early Iron Age in the Margiana Lowlands: Facts and Methodological Proposal for a Redefinition of the Research Strategies*, eds. S. Salvatori and M. Tosi. BAR International Series 1806. Oxford: Archaeopress, pp. 75-98.
- Salvatori, S. 2010. "Thinking around Grave 3245 in the 'Royal Graveyard' of Gonur (Murghab Delta, Turkmenistan)". In *Na puti otkrytija tsivilizatsii. [On the Track of Uncovering a Civilization]. Trudy Margianskoj Arkheologicheskoy Ekspeditsii*, 3, eds. P.M. Kozhin, M.F. Kosarev and N.A. Dubova. Sankt-Petersburg: Aletejja, pp. 244-257.
- Santoni, M. 1984. "Sibri and the south Cemetery of Mehrgarh: third millennium connections between the northern Kachi Plain (Pakistan) and Central Asia". In *South Asian Archaeology 1981*, ed. B. Allchin. Cambridge: Cambridge University Press, pp. 52-60.
- Sarianidi, V.I. 1976. "Issledovanie pamjatnikov Dašlinskogo oazica". *Drevnaja Baktrija I* : 21-86.
- Sarianidi, V.I. 1977. *Drevnij zemledel'ci Afganistana*. Moscow: Nauka.
- Sarianidi V.I. 1981. "Seal-amulets of the Murghab style". In *The Bronze Age civilization of Central Asia*, ed. P. Kohl. New York: M.E. Sharpe, pp. 221-255.
- Sarianidi, V.I. 1986. *Die Kunst des Alten Afghanistan. Architektur, Keramik, Siegel, Kunstwerke aus Stein und Metall*. Leipzig : E.A. Seemann.
- Sarianidi, V.I. 1990. *Drevnosti Strany Margush*. Ashkhabad: Akademija Nauk Turkmenskoj SSR.
- Sarianidi, V. 1998. *Myths of Ancient Bactria and Margiana on its seals and amulets*. Moscow: Pentagaphic Ltd.
- Sarianidi W. 2002. *Margush. Ancient Oriental Kingdom in the Old Delta of the Murghab River*. Ashgabat: Türkmen döwlet habarlary.
- Sarianidi, W. 2005. *Gonurdepe, Turkmenistan. City of Kings and Gods*. Aşgabat: Miras.
- Sarianidi, V. 2007. *Necropolis of Gonur*. Athens: Kapon Editions.
- Sarianidi, W. 2008. *Margush, Turkmenistan. Mystery and True of the Great Culture*. Aşgabat: Türkmen döwlet neşirýat gullugy.
- Stein, A. 1937. *Archaeological Reconnaissances in North-Western India and South-Eastern Īrān*. London: Macmillan.
- Teufer, M. 2007. "Zu bronzzeitlichen Tulpendarstellungen in Zentralasien und im Iran". In *Scripta Praehistorica in honorem Biba Teržan*, eds. M. Blečić, M. Črešnar, B. Hänsel et al. Ljubljana: Narodni muzej Slovenije, pp. 183-207.

- Tosi, M. 1974. "Some data for the study of prehistoric cultural areas on the Persian Gulf". *Proceedings of the Seminar for Arabian Studies* 4: 145-171.
- Vidale, M. 2017. *Treasures from the Oxus. The Art and Civilization of Central Asia*. London : I.B. Tauris and Co. Ltd.
- Vogt B. 1985. "The Umm an-Nar Tomb A at Hili North: A preliminary report on three seasons of excavation, 1982-1984". *Archaeology in the United Arab Emirates* IV: 20-37.
- Vogt, B. 1994. *Asimah. An Account of a Two Months Rescue Excavation in the Mountains of Ras al-Khaimah, United Arab Emirates*. Ras al-Khaimah : Department of Antiquities and Museums.
- Weeks, L. 2016. "Iran and the Bronze Age Metals Trade in the Persian Gulf". *International Journal of the Society of Iranian Archaeologists* 2(3): 13-25.
- Woolley, C.L. 1934. *Ur Excavations II. The Royal Cemetery*. London and Philadelphia : Trustees of the Two Museums.
- Zarins, J. 1978. "Steatite vessels in the Riyadh Museum". *Atlat* 2: 65-93.
- Zarins, J. 1989. "Eastern Saudi Arabia and External Relations: selected ceramic, steatite and textual evidence: 3500-1900 B.C.". In *South Asian Archaeology 1985*, eds. K. Frifelt and P. Sørensen. Scandinavian Institute of Asian Studies, Occasional Papers 4. London : Curzon Press, pp. 74-103.
- Zettler, R.L. and L. Horne (eds.) 1998. *Treasures from the Royal Tombs of Ur*. Philadelphia : University of Pennsylvania Museum of Archaeology and Anthropology.

Notes

¹ I wish to express my deepest gratitude to both editors for their patience and support. I especially warmly thank Bertille Lyonnet for her wise advises, corrections and constant help in finding the necessary Central Asia references I was lacking, and for her encouragement when needed.

² The terminal date proposed here is later than that from the radiocarbon dates (see Appendix at the end of the volume), but these are still scarce and many other arguments that we cannot develop here speak in favor of such a later date.

³ I am extremely grateful to N. Dubova for her very generous lending of the pictures of all the artifacts found in this grave.

⁴ This location is confirmed *contra* Potts 2008: 176 who had expressed some reservation about it.

⁵ Only two radiocarbon dates are available for the the same level at the Barbar Temple (see the Appendix at the end of this volume), and the chronology of this building, drastically revised in 1983, still mainly relies on the ceramic sequence which was established only by comparing selected stratified assemblages from the site with sequences from Danish excavations at Qal'at al-Bahrain and on Tell F3 and F6 at Failaka in Kuwait. The final publication of the Barbar Temple (Andersen and Højlund 2003a, b) remains quite silent on the detailed chronology of each of its architectural stages, and recent, average dates curiously appear only on two synthetic chronological tables which are considered as the main references today (Højlund 2007: 12, fig. 3 and Laursen 2017: 382-383, fig. 511).

⁶ There is probably an error in the legend of fig. 40 where it is said that the mirror comes from Dashly 3, while the text mentions that it comes from plundered graves and was found in the Kabul bazar.