Title: Pottery from Bahra 1 (Kuwait). New evidence for the presence of Ubaid culture in the Gulf

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Abstract: Excavations at the site of Bahra 1 in northern Kuwait have contributed new evidence of interactions between the Gulf and Mesopotamia in the Ubaid period. Two distinct groups of pottery have been recognized at the site: Ubaid pottery of Mesopotamian origin and a Coarse Red Ware made most probably in the Gulf area. The paper presents pottery types and technology, and discusses the chronology of both ceramic groups, as well as their function and provenance.

Keywords: Ubaid period, pottery, Bahra 1, Kuwait, Persian/Arabian Gulf
POTTERY FROM BAHRA 1 (KUWAIT)
NEW EVIDENCE FOR THE PRESENCE OF UBAID CULTURE IN THE GULF

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INTRODUCTION

Distinctive Ubaid pottery is found throughout a vast area of the ancient Near East. It spread from its homeland in southern Mesopotamia to the northern reaches of the region and beyond its borders to eastern Anatolia, northwestern Syria and western Iran. Ubaid influences can be found also in the south: over 60 Ubaid-related sites have been identified in the Gulf area (Carter 2006: 58). They are clustered in the central Gulf, where many sites with Ubaid pottery have been recorded (e.g., Dosariyah, Abu Khamis, Ain Qannas, Khursaniyah). Most of the pottery found at Gulf sites can be attributed to Ubaid 2/3 and Ubaid 3 periods, but Ubaid 4 pottery assemblages have also been encountered at some sites.¹ Ubaid 2 (or Hajji Muhammad) is the earliest phase of the Ubaid influence attested in the Gulf area, but since Ubaid 2 pottery is not an unequivocal chronological marker, its presence in this region cannot be precisely pinpointed.

In 2009 a Polish–Kuwaiti team directed by Prof. Piotr Bieliński from the Polish Centre of Mediterranean Archaeology, University of Warsaw, started investigations at Bahra 1, a site located in the

¹ The transition between Ubaid 2 and Ubaid 3 phases, when pottery of both styles co-occurs, is usually defined as “early Ubaid 3” or “Ubaid 2/3” (Oates 1983: 253).
As-Sabbiya region, in northern Kuwait. The first three seasons of excavations (Bieliński 2011) have proved it to be one of the largest Ubaid-related sites in the Gulf. It covers an area of at least 120 m by 35 m. Remains of a dwelling (House 1), covering nearly 100 m² (11.5 m by 8 m), are being explored with at least 12 rectangular units having been uncovered so far. The walls, raised of local sandstone, have survived in the lower courses. Stone slab paving has been recorded in some of the rooms.

Two pottery groups are represented at Bahra 1, just as at other Ubaid-related sites in the region. Next to Ubaid pottery there is a Coarse Red Ware that is believed to be of local manufacture. A comparative analysis of Ubaid pottery from Bahra 1 indicates that the site was occupied during Ubaid 2 and 3 periods, that is, in the last centuries of the 6th millennium BC. An important ceramic horizon appears in the transition between Ubaid 2 and 3 (Ubaid 2/3), with pottery of both phases being recorded. Ubaid pottery provides evidence of long-distance relations between Mesopotamia and the Gulf, although the character of this interaction has been debated extensively.

UBAID POTTERY

DECORATIVE MOTIFS AND TYPES

Ubaid pottery can be broken down into decorated and plain varieties. About 25% of the Ubaid pottery assemblage from Bahra 1 bears painted decoration [Fig. 1].

Vessels were also decorated with an unusual technique of incisions in reserve. Patterns were scratched in the dark paint to reveal the lighter surface of the vessel body underneath. Many vessels featured a distinctive Hajji Muhammad-style decoration that was also in reserve: almost the whole surface of the vessel was covered in paint, apart from the actual pattern which was left unpainted. The paint — colored from black through different shades of brown to reddish, olive and purple-black — was set against the greenish, buff or pinkish background of the vessel surface.

The most common motifs included dense oblique grids, triangles, date-pits, as well as horizontal, vertical and wavy lines,
zigzags, diagonal lines and denticulation [Fig. 2]. Ladders, hourglasses, intertwined loops, chevrons and checkers were also used, although much less frequently.

The most popular motif on Ubaid pottery at Bahra 1 was a dense, oblique grid leaving a delicate pattern of tiny squares in reserve [Fig. 2:1]. This pattern was found invariably on rims and walls of what were in all likelihood carinated bowls. Triangles were also a common motif, solid-painted with olive, olive-brown, or purplish-black paint [Fig. 2:3a,b]. A pattern of triangles is frequent at Hajji Muhammad (Ziegler 1953: PIs 4k, 14, 16:b, 33: top left) where, as at Bahra 1, triangles adorned the bottom of bowls. Zigzags in reserve were also very common in the Ubaid 2 period [Fig. 2:11], but were encountered also in Ubaid 2/3. This particular pattern can be found at Hajji Muhammad (Ziegler 1953: PIs 2:a, 34:p), Ras al-Amiya (Stronach 1961: PIs LVII:17, LVIII:21, LIX:2) and Eridu levels XII–VIII (Safar et alii 1981: Figs 83:4, 88:19). Several body sherds bore a motif of diagonal parallel lines arranged in horizontal bands [Fig. 2:8, 4:2]. Their juxtaposition side by side in the same or neighboring bands produced a chevron effect. Vertical zigzags were commonly arranged in horizontal bands [Fig. 2:9]. This motif had a long lifespan from Ubaid 1 through Ubaid 2 and Ubaid 2/3. It is associated

Legend:
1 – dense, oblique grid
2 – circle filled with dense grid
3 a, b – triangles
4 – line in reserve
5 – horizontal bands
6 a, b – denticulation
7 – date pit / cowry shell
8 – diagonal lines
9 – vertical zigzag
10 – horizontal chevrons
11 – zigzag in reserve
12 – wavy line between horizontal lines
13 a, b – wavy lines

Fig. 2. Decorative motifs on Ubaid pottery from the Bahra 1 assemblage
(Drawing A. Smogorzeewska)
both with bowls and, more frequently, with small jars and is known from Tell el-Oueili (Lebeau 1991a: Pl. VII:8; Calvet 1987: Pls XI:6, XII:1), Hajji Muhammad (Ziegler 1953: Pls 1:a,e, 3:a,i; 13, 21:c, 27:b,c), Ras al-Amiya (Stronach 1961: Pls LVIII:12, LIX:32, LIX:37), Tell Abada level II (Jasim 1985: Fig. 174:c), Tell Songor A (Fujji 1981: Fig. 35:4) and Eridu level XV (Safar et alii 1981: Fig. 93:1). One body sherd with horizontal chevrons ([Fig. 2:10, 3:7] belonged to a fine-ware, thin-walled vessel. The pattern is known from the Ubaid 2 and Ubaid 3 periods with parallels from Ras al-Amiya (Stronach 1961: Pls LIII: 9, LVIII: 10), Tell Abada levels II and I (Jasim 1985: Figs 168:a,f, 174:f, 181:e, 191:c), Tell Songor A (Fujji 1981: Fig. 35:3) and Tell Songor B (Fujji 1981: Fig. 46:4). Horizontal chevrons appeared most frequently on small jars (often with lugs).

Another extremely common motif on the pottery from Bahra 1 is a horizontal line painted at the rim. Such lines adorned bowls with simple and everted rims ([Fig. 4:7], like the parallels from Ras al-Amiya (Stronach 1961: Pl. LI:2–4), H3 (Carter, Crawford [eds] 2010: Figs 3.13:2, 5, 7; 3.15:2, 24, 29, 31, 33; 3.17:10–12, 26, 28), Hajji Muhammad (Ziegler 1953: Pl. 24:c), Tell Abada level I (Jasim 1985: Fig. 131). In several examples from Bahra 1 both the rim and the inside of a bowl were painted. Wavy lines “hanging” from a painted band on the rim adorned a bowl on the inside ([Fig. 3:5]. Comparable decoration can be found on vessels from Ras al-Amiya (Stronach 1961: Pls LVIII:13, L:3), Hajji Muhammad (Ziegler 1953: Pl. 13:n) and Tell el-Oueili (Lebeau 1991a: Pl. VI:6–10). In two examples, wavy lines were placed on the base of bowls, also inside ([Fig. 3:6]. Painted bands divided the base into four quarters, each filled with parallel, wavy lines. This pattern, also associated with bowls, is known from Ras al-Amiya (Stronach 1961: Pl. L:7,8), Tell el-Oueili Ubaid 1 (Calvet 1987: Pl. XI:7, 12); Hajji Muhammad (Ziegler 1953: Pls 5:e,i, 33:m,o,p,r), Tell Abada levels III–II (Jasim 1985: Figs 105:a, 106:d, 110:c, 154:c) and Eridu levels XVI–XIV (Safar et alii 1981: Figs 91:14, 96:15).

Most of the shapes (approximately 70% of all diagnostic sherds) in the Bahra 1 pottery assemblage represented open forms: bowls and beakers [see Fig. 1]. Closed shapes, such as jars, jugs and pots were much less numerous and accounted for approximately 30% of the assemblage.

Carinated bowls prevailed in the Ubaid pottery repertoire from Bahra 1. They were usually decorated in the Hajji Muhammad style, reserve decoration with a dense grid pattern, composition of triangles and single reserve line at the point of carination on the inside and reserve triangles usually on the outside ([Fig. 3:1]. Other common-ware decorated bowls were also recorded, including some (rim diameters 36–38 cm) with denticulation around the rim. The denticulation motif was composed either of triangles or of curvilinear denticles in negative ([Fig. 2:6a,b] (for parallels, see discussion below). Two of the bowls with a rim decorated with denticulation also featured reserve lines on the outside, while on the inside there was a solid-painted band below the rim ([Fig. 4:5]. Both the inner and outer surfaces of two further bowls were solid-painted. A big, common ware bowl (rim diameter 52 cm) was decorated with a pattern of dark brown, painted circles filled with a dense grid ([Figs 2:2, 4:8].
Fig. 3. Ubaid pottery with painted decoration: 1a,b – carinated bowl with inside and outside decoration; 2 – sherds decorated with triangles (not to scale); 3, 4 – bases decorated with triangles; 5, 6 – sherds decorated with wavy lines; 7–9 – fine ware sherds with diverse ornaments (All drawings U. Wicenciak and M. Żurek; digitizing M. Momot and A. Smogorzewska; all photos A. Smogorzewska)
Fig. 4. Ubaid common ware from Bahra 1: 1 – beaker decorated with wavy line between horizontal lines; 2 – body sherd decorated with diagonal parallel lines arranged in horizontal bands; 3 – jar with pierced ledge; 4 – fragments of vessel with oval base; 5 – bowl decorated with denticulation; 6 – bowl decorated with date-pit motif; 7 – bowl with horizontal band; 8 – bowl with circles filled with dense grid
Several examples of big common-ware bowls (rim diameters of c. 40 cm) feature a distinctive motif that resembles a date pit or cowry shell \([\text{Figs 2:7, 4:6}]\). The pattern of date-pit motifs in horizontal bands between thin lines is seldom encountered on Ubaid vessels from other sites. Single examples are known from Ras al-Amiya (Stronach 1961: Pl. LIX:25), Hajji Muhammad (Ziegler 1953: Pls 33:n, 37d:134), Ur (Woolley 1927: Pl. 46:49), Tell Abada level II (Jasim 1985: Fig. 168:d), Mandali (Oates 1968: Pl. IX:25) and H3 (Carter, Crawford [eds] 2010: Fig. 3.17:18) in Ubaid 2 and Ubaid 2/3 periods.

Open forms from Bahra 1 included beakers. One example with S-shaped body (height 8 cm, rim diameter 4 cm) had a wavy line between two parallel lines just below the rim \([\text{Fig. 4:1}]\). A single, painted band was also applied near its base. The beaker resembles “tall goblets” typical of the Ubaid 1 or Eridu phases (type 32) (Safar et alii 1981: 175), even in the decoration which is limited to the uppermost and bottom parts. Beakers of this type (some of them carinated) are known from, among others, Eridu level XVI (Safar et alii 1981: Fig. 96:20), Tell el-Oueili (Calvet 1987: Pls VI:4, XII:8, XIII:1), Tell Abada levels III and II (Jasim 1985: Figs 100:b–d, 103:b, 196:b, c) in the Ubaid 1, 2 and 3 periods.

A vessel with a flat oval base resembling “boat-type” pottery has no parallels in the
Bahra 1 repertoire so far [Fig. 4:4]. The vessel is preserved in two fragments. Its decoration consists of bands with zigzags in reserve (the zigzags were obtained by scratching the dark grey surface of the vessel), painted vertical zigzags and “date-pit” patterns in reserve. It finds analogies among vessels from Tell Songor B (Fujii 1981: Fig. 46:1) and Ras al-Amiya (Stronach 1961: Pl. LII:13).

Fig. 6. Vessels from Locus 16, House 1: 1, 2 – jars with cylindrical neck and globular body, pinkish and light-greenish ware respectively; 3 a, b – decorated bowl missing base; 4 – fragment of body of large jar decorated with applied knobs
A jar with pierced ledge inside the rim, one example of which has been recorded at Bahra 1, has painted decoration resembling an *oeil-de-boeuf* motif [Fig. 4:3]. Similar designs can be found on a bowl and jar with a lug from Abada levels II and I (Jasim 1985: Figs 160:b, 168:j).

Four big vessels uncovered undisturbed in one of the rooms (Locus 16) of House 1 at Bahra 1 [Fig. 5] included a big bottomless bowl (rim diameter 30 cm) standing upside down on the rim. It was decorated with a wavy line between two horizontal lines [Fig. 6:3a,b]. Similar bowls were quite numerous at Tell Songor B level I (Fujji 1981: Fig. 46:10) and were also found at Ras al-Amiya (Stronach 1961: Pl. L1:8,10,11) and Hajji Muhammad (Ziegler 1953: Pl. 23:b), among others, where they were dated to the Ubaid 2 and 2/3 phases. The other three vessels were big jars, all crushed into small pieces. One was light greenish, the second pinkish, both globular in shape with a cylindrical neck, the first 38 cm high and 18 cm in rim diameter [Fig. 6:1], the latter 40 cm high and 14 cm in diameter [Fig. 6:2]. The third jar could be restored only in part as its rim, neck and base were missing, but it must have been over 60 cm high. It was made of greenish-grey clay tempered with chaff. The body was adorned with a plastic decoration unusual for Ubaid pottery, that is, applied round knobs, arranged in four horizontal rows on the vessel shoulder [Fig. 6:4].

TECHNOLOGY

Ubaid vessels were made by hand, using coiling or slab techniques. The introduction of a tournette or slow wheel in the Ubaid period speeded up pottery production. Scraping marks and other secondary forming methods used mostly in handmade vessels can be seen on some of the Bahra 1 potsherds, usually on the inner walls of vessels, which suggests a modeling and thinning of the walls with a tool, probably made of shell, flaked stone or pottery. In rare examples of particularly carelessly made vessels, it is possible to see the joining between individual coils of clay. As for surface treatment, many vessels were wet-smoothed and some revealed traces of brushing. Many of the Ubaid vessels were also slipped. Single examples were burnished and their glossy surface distinguished them. Most of the Ubaid vessels were fired at medium temperature, but some could have been fired at high temperature, as indicated by the olive color of the ware and dense fabric.

Ubaid pottery from Bahra 1 represents three main technological groups: fine, common and coarse ware. Fine ware is characterized by well-levigated clay with no visible inclusions. Vessels are usually thin-walled (0.2–0.5 cm thick), undecorated, with a smooth surface. The most frequent technological group among Ubaid pottery from Bahra 1 are common-ware pots. This ware is distinguished by a mineral temper present in the clay body in various quantities. Voids are often visible on the surface of the vessels. It is the technological group with the highest percentage of painted vessels. As for coarse ware, it is characterized by heavy chaff temper and by thick-walled vessels (sometimes exceeding 2 cm in thickness).

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2 The vessels were restored by Ewa Parandowska.
COARSE RED WARE

Coarse Red Ware (also called Arabian Coarse Ware) is the earliest pottery made locally in the Gulf area. It occurs solely in context with Ubaid pottery, so the introduction of an Arabian ceramic tradition may have actually been inspired by Ubaid ceramics. At Bahra 1 Coarse Red Ware made for approximately 35% of the collected pottery [Fig. 1].

Coarse Red Ware vessels are distinguished by their red, less often light-brownish or grayish, color [Figs 7, 8]. The clay used for the ceramic paste of the vessels was tempered with chaff, sand and other inclusions. The vessels were fired at low temperatures, probably on open fires. This gave a soft and brittle ware with grey cores in the break.

Fig. 7. Coarse Red Ware from Bahra 1: 1–5 – shallow bowls; 6–8 – pots with lugs; 9–10 – bases of beakers
The repertoire of Coarse Red Ware shapes is limited [Figs 7, 8]. Forms typical of the Bahra 1 settlement included shallow bowls, high, straight-walled goblets and pots with lug handles. Single, fragmentarily preserved examples represent jars with everted rims.

Coarse Red Ware cooking vessels were often equipped with plug-in lugs that were handy for moving the pots, placing them on a fire and taking them off again. Coarse Red Ware vessels were handmade, using the coiling or slab-building techniques. The outer surface of many of the vessel bases preserved an impression of the mat upon which they had stood during the formation process. Two kinds of impressions can be recognized, presumably grass or palm-leaf mats as suggested by preliminary archaeobotanical analyses.

**DISCUSSION**

**CHRONOLOGY AND AFFILIATIONS**

Based on pottery parallels from many sites in Mesopotamia (among others, Hajji Muhammad, Ras al-Amiya, Eridu, Tell el-Oueili, Tell Abada and Tell Songor), the pottery assemblage from Bahra 1 can be dated to the Ubaid 2 and 2/3 phases. Forms and motifs common in Ubaid 3 were also encountered in the Bahra 1 assemblage, but they were less numerous and some of them were known as early as Ubaid 2 (e.g., denticulation around the rim or jar with inner pierced lugs). Denticulation around the rim can be encountered in Tell el-Oueili in the Ubaid 3 period (Calvet 1987: Pls III:2,3, VII:2, XXII:1,2,4, XXI:4; Lebeau 1991b: Pls VII:7–14, VIII:8–17), Ras al-Amiya in Ubaid 2/3 levels (Stronach 1961: Pl. XLV:3), Tell Abada level I (Jasim 1985: Fig. 132) and Eridu, in Ubaid 2/3 (levels XIII–X) (Safar et alii 1981: Figs 86:44, 88:15, 89:2) as well as in Hajji Muhammad (Ziegler 1953: Pls 2:h, 10:r; 11:r, 12:l). Jars with inner pierced lugs were also common in the Ubaid 2/3 and 3 periods, among others at Tell el-Oueili (Calvet 1987: Pl. II:6; Lebeau 1991b: Pl. X:10–11), Eridu (type 23) (Safar et alii 1981: Figs 84:16, 87:2, 10, 88:2, 89:5,6), Ras al-Amiya (Stronach 1961: Pls LIII:2, LIV:3), although they are known in the Ubaid 2 period as well, among others at Hajji Muhammad (Ziegler 1953: Pls 29:a, 31:a) and Tell Abada level II (Jasim 1985: Figs 174:c,e, 175:a).

Many vessels from Bahra 1 resembled those of the Hajji Muhammad style. However, this distinctive pottery style is not a precise chronological marker. Traits
characteristic of the Hajji Muhammad style, such as a dense oblique grid, triangles in reserve, zigzags and lines in reserve, are among the most frequent decorative motifs recorded in the assemblage at Bahra 1. They are common at Hajji Muhammad, Eridu, Ras al-Amiya, Tell Abada II, Tell Songor B, and Tell el-Oueili in Ubaid 2 levels, but they also appear in the Ubaid 2/3 period, when many survivals of the Hajji Muhammad style can be found. At Eridu, Hajji Muhammad pottery started in level XV, was found in quantity in levels XIV–X, but occurred as late as levels IX–VIII (Oates 1960: 36).

Diagonal parallel lines are also a diagnostic motif for the Hajji Muhammad phase. However, it, too, has a long lifespan. It was encountered in Ubaid 1–4 phases at Hajji Muhammad itself (Ziegler 1953: Pls 1:f,g,k,l, 3:a,c, 21:b,c, 22:d; 27:a,b, 34:e–i), Tell Abada, level III (Jasim 1985: Fig. 110:a) and Ras al-Amiya (Stronach 1961: Pl. LIX:15). At Eridu, this pattern was associated mostly with the Hajji Muhammad style and appeared from Ubaid 1 to 3 (levels XVII–VIII) (Safar et alii 1981: Figs 83:14–15, 85:2, 8, 86:23, 88:21, 90:6, 8, 93:10, 98:34).

Carinated bowls, a favorite shape of the Hajji Muhammad style and also the most popular vessel shape at Bahra 1, were particularly associated with the Ubaid 2 and early Ubaid 3 periods. This type of bowl was extremely popular at the site of Hajji Muhammad (Ziegler 1953: Pls 11, 14, 15, 16:a), but was also encountered at Ras al-Amiya (Stronach 1961: Pls XLVIII:2, XLIX:1–2), Abada level II (Jasim 1985: Fig. 152), Tell Songor A (Fujji 1981: Fig. 35:8), Tell Songor B (Fujji 1981: Fig. 46:7) and Tell el-Oueili in the Ubaid 2 level (Lebeau 1991b: Pl. I:6–11). At Eridu, the carinated bowl (Type 24) was the most popular shape in levels XIV to XII (Ubaid 2), but it continued to occur into level VIII, covering the Ubaid 2 and 3 phases (Safar et alii 1981: 148; Fig. 90:3,5).

The chronology and pottery repertoire of Bahra 1 is generally comparable to that from other Ubaid-related sites in the Gulf region. Most of the sites can be dated to Ubaid 2/3 and/or Ubaid 3 phases. Some sites (e.g., Dosariyah and Abu Khamis) also yielded some quantities of Ubaid 4 pottery, which seems to be absent from Bahra 1. The large number of potsherds associated in shape and style with the Ubaid 2 (or Hajji Muhammad) phase is notable compared to other Ubaid-related sites in the Gulf.

FUNCTION

The two groups of pottery from Bahra 1 served different purposes. Coarse Red Ware most probably served practical ends: the lugged pots were used for cooking and the goblets as drinking vessels. However, the function of Ubaid vessels among the Neolithic Gulf population is a moot point. Ubaid pottery was a foreign element, while other components of Neolithic material culture in the Gulf were local. According to some authors, there is no evidence for extensive trade in pottery at this time (Oates et alii 1977: 232–233). Ubaid vessels were brought to the Gulf by Mesopotamian inhabitants who travelled carrying their pottery with them. On the other hand, Carter (2006: 58–59) argues that the pottery was an item of trade and played an active role among the inhabitants of the Gulf. In his opinion it was incorporated into their local material culture and became part of their symbolic vocabulary.

Most of the Ubaid pottery from Bahra 1 can be considered as luxury tableware, used for serving food and drink. Of sig-
nificance is the considerable number of bowls or plates which could have been used for serving food, judging by the fact that most have rim diameters of 40–50 cm. Cups and goblets, used for drinking, are also present, although not in big numbers. Closed forms, such as jars and jugs, that could have been used for serving or storing, are less numerous. Bahra 1 also yielded big Ubaid vessels of common and coarse ware (e.g., jars and big bowls), which were usually undecorated and seem to have been meant for everyday household activities, such as the storage or processing of various products.

Apart from practical uses, vessels in prehistoric societies may have played a symbolic role, becoming emblems of social status, manifestations of their owners’ sex or profession. The characteristic ornaments or forms of the vessels may have been communicators conveying their users’ social, religious or tribal affiliations. It can thus be argued that the lavishly decorated bowls may have been used by the inhabitants of Bahra 1 and other Ubaid-related settlements for serving food during festive gatherings or celebrations. As prestigious goods, the vessels may have also been important items in ceremonial gifts’ exchange and an essential element of display (Crawford 2010: 166).

PROVENIENCE
Ubaid ware and Coarse Red Ware differ in almost all aspects: repertoire of shapes, technology as well as chemical composition of clay. Provenance analyses performed in the 1970s proved that Ubaid-style pottery found in the Gulf originated from southern Mesopotamia (Oates et alii 1977: 232). Coarse Red Ware was most probably produced locally in the Gulf region. At some Central Gulf sites, Coarse Red Ware amounts up to 60–70% of the pottery assemblages (Oates et alii 1977: 222). Some evidence of local pottery production, such as kiln wasters, has been reported from Dosariyah (Masry 1974: 169). Precise characteristics of the two pottery groups from Bahra 1 and their provenancing will be tested in laboratory analyses, which are planned for the future. Their results should help in clarifying the character of the interaction between Mesopotamia and the Gulf region in the Ubaid period.

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