

Hajji Muhammad Ware in the Gulf New Data from the Ubaid-Related Site Bahra 1 (Kuwait)

ANNA SMOGORZEWSKA

Abstract: This paper discusses Hajji Muhammad ware in the context of the Gulf, where Ubaid-related sites were identified. It focuses on new data concerning Hajji Muhammad ware provided from a recently excavated site Bahra 1 (Kuwait). Style, morphological types and decorative motifs of Hajji Muhammad ware from Bahra 1 are discussed in extent. Pottery evidence from Bahra 1 has been employed in this paper to discuss the validity of Hajji Muhammad ware as an chronological indicator and the function of this ware among Neolithic population in the Gulf.

Keywords: Hajji Muhammad, Bahra 1, pottery, Persian/Arabian Gulf, Ubaid

Anna Smogorzewska, Instytut Archeologii UW, Warszawa; asmog@wp.pl

The term ‘Hajji Muhammad’ is used in a dual sense: to define a distinctive pottery and to describe the second phase of Ubaid pottery development. Hajji Muhammad ware was first recognized in the course of excavations at Qalat Hajji Muhammad, a site located near Uruk, in southern Mesopotamia.¹ Upon analyzing Ubaid pottery, J. Oates demonstrated that the Hajji Muhammad (Ubaid 2) phase falls into a pottery tradition where it is preceded by the Eridu (or Ubaid 1) phase and is followed by the later Ubaid 3 and Ubaid 4 phases.² Hajji Muhammad pottery was found at sites throughout the alluvial Mesopotamian plain, up to the Hamrin region in the north and the shores of the Gulf in the south. It was most frequent at southern Mesopotamian sites, such as Hajji Muhammad itself, Eridu, Oueili, Ur and Ras al-Amiya, near Kish.³ Further north, Ubaid 2 pottery was recognized at Tell Abada and Tell Songor⁴ in the Hamrin region and Serik and Choga Mami near Mandali.⁵

¹ Ziegler 1953.

² Oates 1960; 1983.

³ Ziegler 1953; Safar, Lloyd 1981; Calvet 1987; Lebeau 1991a; 1991b; Woolley 1955; Stronach 1961.

⁴ Jasim 1985; Fujii *et al.* 1981.

⁵ Oates 1968.

Ubaid pottery has been attested, to date, on over 60 sites in the Gulf⁶ and it is the main evidence of interactions between Mesopotamian and the Gulf region in that period. Ubaid-related sites are, for the most part, distributed along the coastline, stretching from Kuwait to Oman, but being most frequent in the Central Gulf (Dosariyah, Abu Khamis, Khursaniyah, Ain Qannas, Ain as Sayh, Al-Da'asa and others). The earliest Ubaid pottery in the Gulf can be dated to the Ubaid 2, that is to the Hajji Muhammad phase. The majority of Ubaid-related sites in the Gulf reveal the presence of Ubaid 3 pottery, often combined with Ubaid 2 ware. In a few cases, Ubaid 4 pottery has been identified (Dosariyah, Abu Khamis, Dalma) with uncertain evidence of Ubaid 5 presence at the Gulf sites. Ubaid pottery is a foreign component in the material culture of what is called the Arabian Neolithic. Pottery provenance analyses performed in 1970s proved that Ubaid pottery found in the Gulf originated from southern Mesopotamia.⁷

A significant assemblage of Ubaid pottery rendered in the distinctive Hajji Muhammad style has been recently discovered at Bahra 1, a site located in the As-Sabiyah region, in northern Kuwait. The Kuwaiti-Polish Archaeological Mission, directed by P. Bieliński from the Polish Centre of Mediterranean Archaeology (University of Warsaw), has been working at the site since 2009.⁸ Bahra 1 is one of the largest Ubaid-related sites in the Gulf, covering an area of *c.* 120 x 35m with vestiges of several architectural units raised partly of local sandstone. An analysis of pottery from Bahra 1 indicates that the site was occupied during the Ubaid 2 (Hajji Muhammad) and the earlier part of Ubaid 3 periods. Ubaid 2/3 phase, where pottery types typical both for Ubaid 2 and Ubaid 3 co-occur, was recognized at the site. A large share of Hajji Muhammad ware in the Bahra 1 pottery assemblage, distinguishes it from other Ubaid-related sites in the Gulf. Considering its location and the early date of its foundation, Bahra 1 could have played an important role as a staging post in the initial phase of interaction between Mesopotamia and other Ubaid-related sites distributed throughout the Gulf region.

Besides Bahra 1, pottery in the Hajji Muhammad style was also recognized at other Gulf sites, including H3, in the vicinity of Bahra 1, and Central Gulf sites – Abu Khamis, Ain Qannas and Al-Da'asa, to name just a few, where it is accompanied by Ubaid 3 pottery.⁹

As far as Hajji Muhammad pottery is concerned, there are two major issues for discussion – its chronology and function. The validity of Hajji Muhammad ware as a precise chronological marker is questioned by some authors, as the ware's occurrence extends beyond the Ubaid 2 period. Pottery in the Hajji Muhammad style is usually considered to be a luxury ware of special function. However, its role in the Gulf region is open to discussion, as is the overall character of Mesopotamia-Gulf interaction in the Ubaid period.

⁶ Burkholder 1972; Masry 1997; Carter 2006.

⁷ Oates *et al.* 1977: 232.

⁸ Bieliński 2011.

⁹ Masry 1997: Figs 18, 90:1; Burkholder 1972: 267; Oates 1976; Carter, Crawford (Eds) 2010.

STYLE AND DECORATIVE MOTIFS

Hajji Muhammad ware is usually defined by its distinct style, which is characterized by closely painted motifs and reserved decoration. However, in the Hajji Muhammad phase, plainer types of pottery also occur, as does completely plain ware.

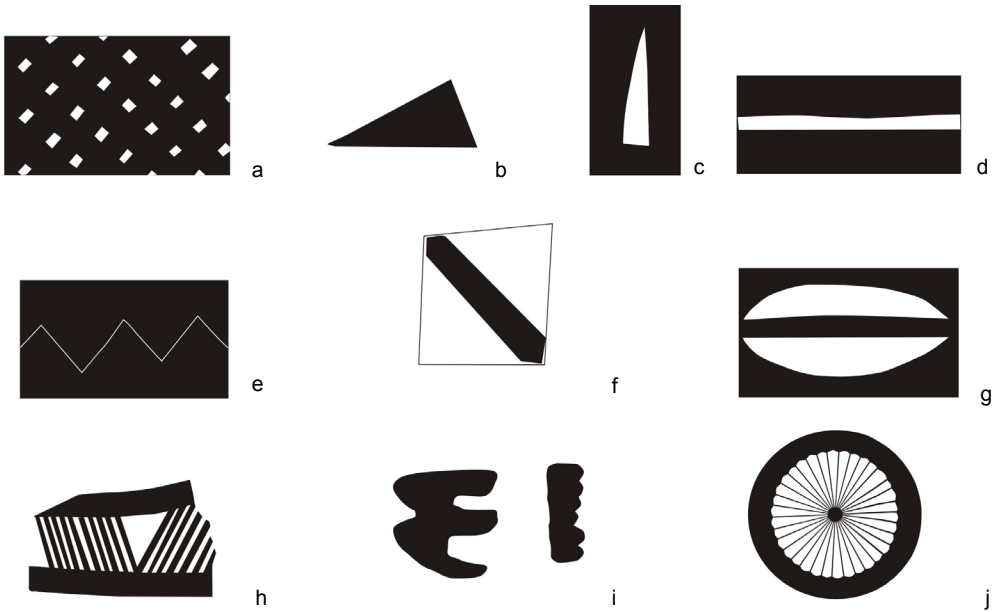
Reserved decoration (or decoration in negative) was obtained by covering almost the entire surface of a vessel in paint, so as the unpainted parts, which retained the color of the body or slip, formed the desired decorative motifs. Decorative motifs in the reserve style could also be obtained by scratching off the dark paint to reveal the light surface of the body, but this technique is less frequent, and limited to the zigzag motif. The pottery of the Hajji Muhammad phase, like the earlier Eridu ware, is densely painted compared to the more sparsely decorated vessels of later Ubaid phases (Ubaid 3–5). The decoration of the early Ubaid tradition (that is the Eridu and Hajji Muhammad wares) is usually associated with open forms and appears on the inside of vessels, while Ubaid 3–5 decorative motifs can be more commonly encountered on the vessels' outside walls.

A large variety of colors is also characteristic for the Hajji Muhammad style. The paint – colored from olive (being the most common color at Bahra 1), through different shades of brown, to reddish, and purple-black – was set against a background of greenish, buff or pinkish surface of the vessels. The final color effect is affected by the chemical composition of the paint combined with firing conditions. It also depends on the paint coat thickness. As evidenced by examples from the Bahra 1 pottery assemblage, different hues could be obtained using the same paint, depending on the thickness of the coat. For example a thin, single coat can be olive in color, while a thicker or multiple coat of the same paint after firing can become dark brown, almost black.

Some decorative motifs seem to have been characteristic of the Hajji Muhammad style, although they usually have a longer life-span than the Ubaid 2 phase and thus, when considered separately, are not precise chronological markers. Among the many motifs used in the decoration of the Hajji Muhammad pottery from Bahra 1 there are some that seem most closely associated with the Hajji Muhammad style, judging by their frequency of appearance and conjunction with vessel forms typical for the Hajji Muhammad phase (see below); they include: dense oblique grid, triangles and triangles in reserve, reserve lines and zigzags, diagonal lines, multiple zigzags, sunbursts, date-pits, and squares with diagonals (**Fig. 1**).

The dense oblique grid, leaving a delicate pattern of tiny, reserve squares, is the commonest pattern among the Ubaid pottery from Bahra 1. This pattern is usually associated with carinated bowls (**Figs 2a, d-e; 3c**). It is characteristic for Ubaid 2, but it is also known in early Ubaid 3 period. The most numerous analogies can be found at Hajji Muhammad,¹⁰

¹⁰ Ziegler 1953: Pls 2e, 3a, d, 4a, 6e, 9h, 11a, h, s, t, 14, 32.



1. Decorative motifs of the Hajji Muhammad ware from Bahra 1: (a) dense grid, (b) triangle, (c) triangle in reserve, (d) reserve line, (e) zigzags in reserve, (f) square with diagonal, (g) date-pit, (h) diagonal lines, (i) multiple zigzags, (j) sunburst (Drawing: A. Smogorzewska).

but also at Ras al-Amiya,¹¹ Tell Abada levels III and II,¹² Tell Songor B,¹³ Oueili,¹⁴ Eridu levels XIV, XII, X–VIII¹⁵ and H3.¹⁶

Triangles on the inside of bowls are another of the most common Hajji Muhammad style motifs at Bahra 1. In most cases, they adorn carinated bowls (**Figs 2e; 3c**). The majority of analogies to triangles pattern can be found at Hajji Muhammad site.¹⁷ Single examples were also recorded at Tell Abada (level III)¹⁸ and Oueili (Ubaid 2 layers).¹⁹ At these sites, as at Bahra 1, the triangles adorn the bowls' bases on their inside.

While triangles are usually found on the inside of bowls, reserve oblong triangles have been encountered on the exterior of carinated bowls. At Bahra 1, several examples

¹¹ Stronach 1961: Pl. XLIX:2.

¹² Jasim 1985: Figs 110d, 153a.

¹³ Fujii *et al.* 1981: Fig. 46:7.

¹⁴ Lebeau 1991b: Pl. I:2, 4, 8–11.

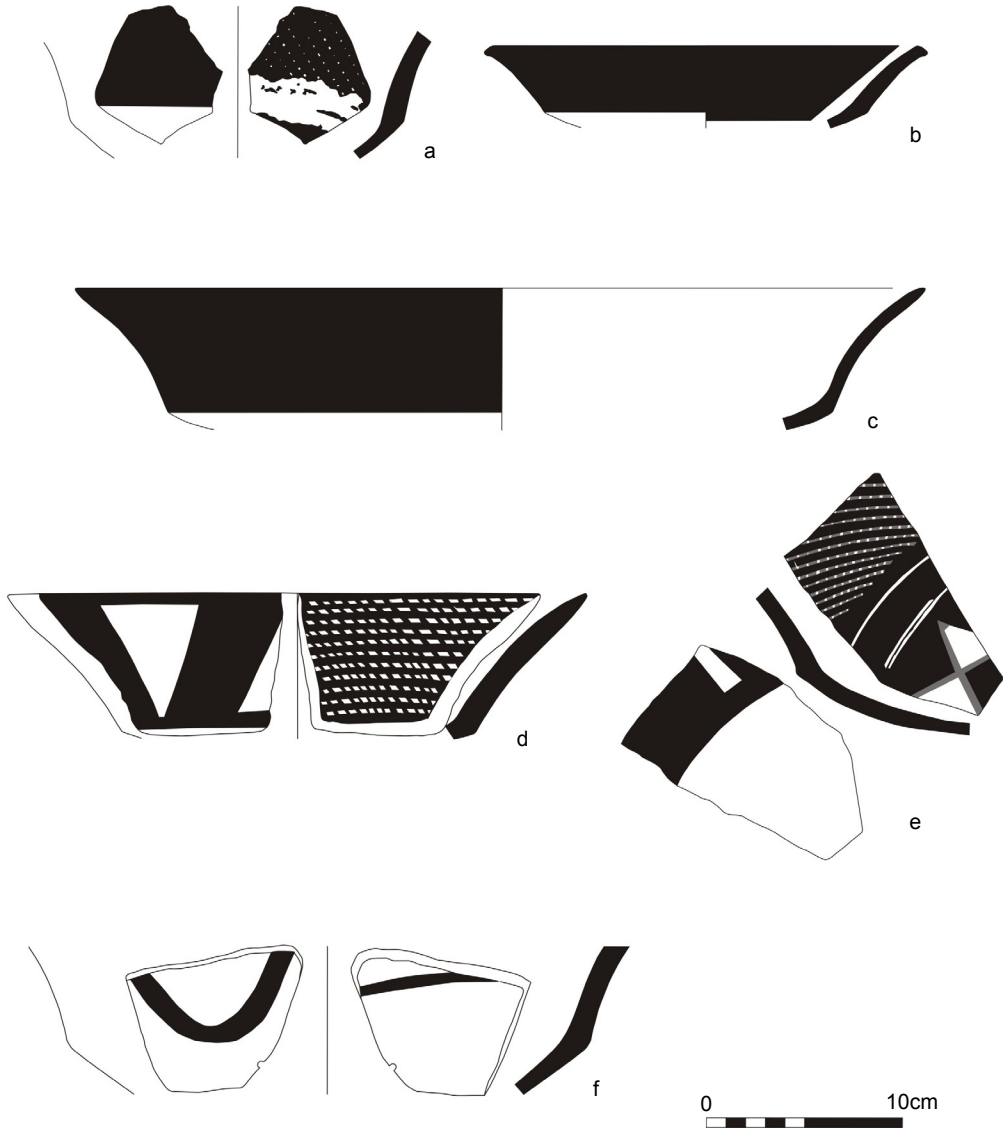
¹⁵ Safar, Lloyd 1981: Figs 83:9, 85:13, 86:26, 30, 88:22, 90:3–5.

¹⁶ Carter, Crawford (Eds) 2010: motif 6. In the Eridu phase, a vertical, dense grid can be found inside bowls. Examples are known from Oueili (Calvet 1983: Pls VIII:1, 2, IX:7; Lebeau 1991a: Pl. II:1–6) and Eridu (Safar, Lloyd 1981: Figs 96:4, 99:15)

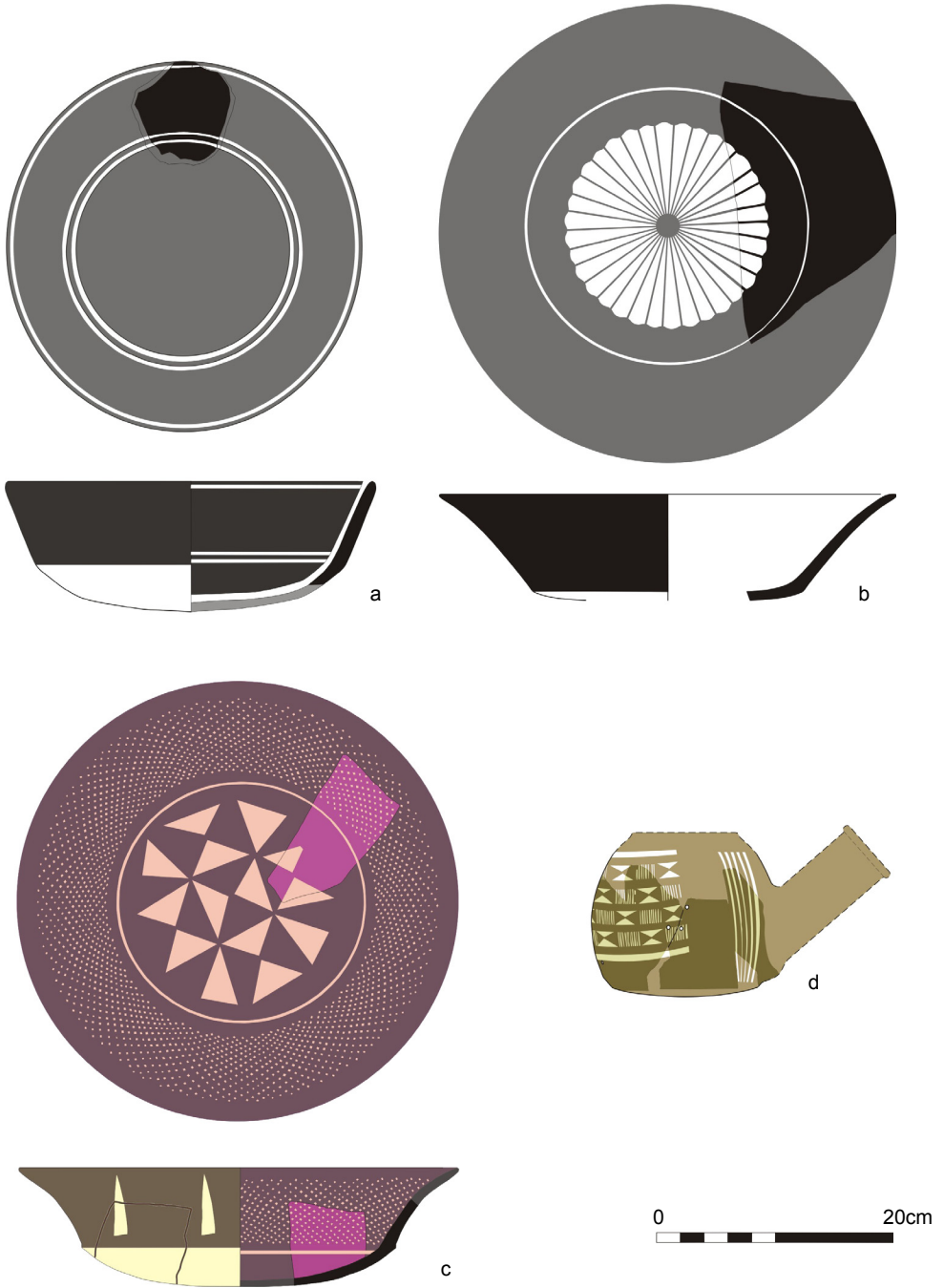
¹⁷ Ziegler 1953: Pls 4k, 14, 16b, 33: top left.

¹⁸ Jasim 1985: Fig. 110i.

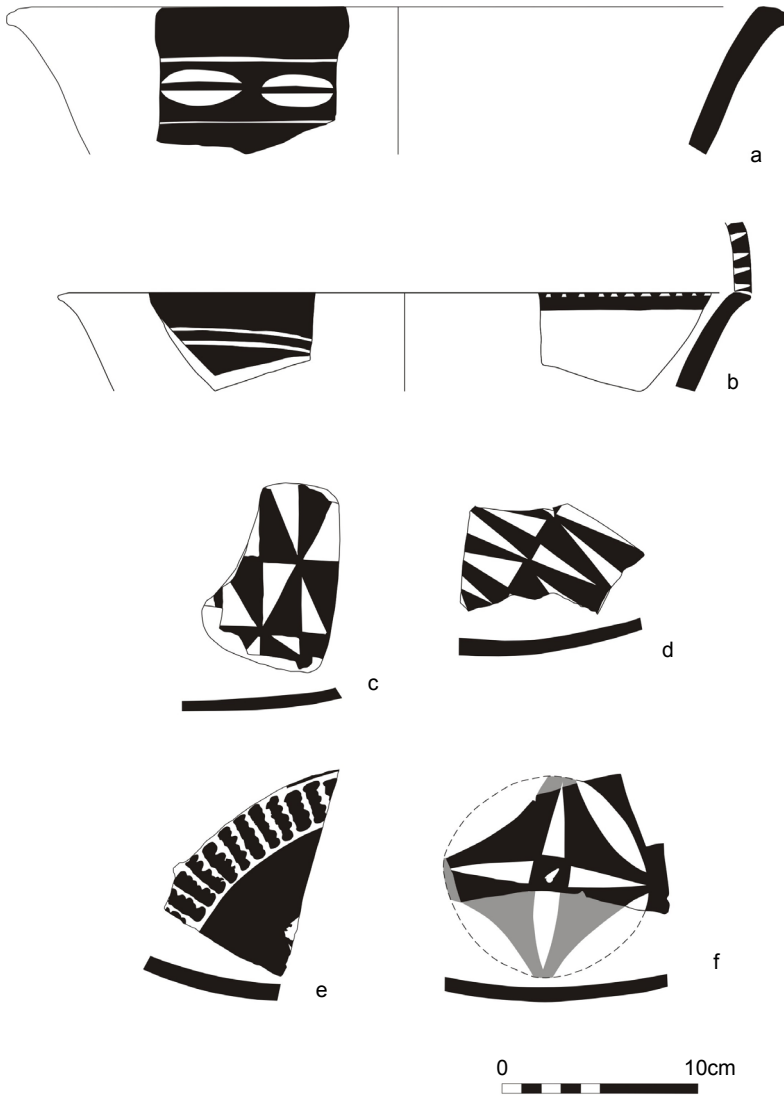
¹⁹ Lebeau 1991b: Pl. III:2.



2. Carinated bowls in Hajji Muhammad style, Bahra 1 (Drawing: E. Hander, M. Žurek, U. Wicenciak; digitizing: A. Smogorzewska).



3. Reconstructed carinated bowls (a-c) and tortoise vase (d) in Hajji Muhammad style, Bahra 1 (Drawing: E. Hander, M. Momot; digitizing and reconstruction: A. Smogorzewska).



4. Hajji Muhammad ware, Bahra 1: common ware bowls (a-b), bases of bowls (c-f) (Drawing: E. Hander, M. Žurek; digitizing: A. Smogorzewska).

have been recorded so far. Analogies can be observed on carinated bowls from Hajji Muhammad,²⁰ Ras al-Amiya,²¹ Oueili (Ubaid 2 layers)²² and Tell Abada.²³

At Bahra 1, painted triangles are also associated with flat, shallow vessels (most probably plates). Olive-painted triangles arranged in various patterns were applied on the pinkish inner surface of one plate, while another features dark brown triangles painted on the cream surface (**Fig. 4c, d**).

Reserve lines are associated with various types of vessels. They are often placed on the vessel walls so as to emphasizing their shape. Reserve lines can be commonly found on the inside of carinated bowls in the Hajji Muhammad style (**Figs 2e; 3a-c**). A single encircling reserve line was usually traced at the point of carination, on the inside of a bowl. Numerous comparisons are to be found at Hajji Muhammad,²⁴ and also at Ras al-Amiya,²⁵ Tell Songor A,²⁶ Tell Abada,²⁷ Oueili (Ubaid 2 layers),²⁸ Eridu²⁹ and H3.³⁰

Several examples of a zigzag pattern in reserve have been recorded at Bahra 1; all were executed by scratching. One features on a thin-walled sherd with dark grey burnished surface (**Fig. 5g**). Zigzags in reserve are highly characteristic of the Ubaid 2 phase. However, they are also associated with Ubaid 2/3. This pattern is found at Hajji Muhammad,³¹ Ras al-Amiya,³² Eridu levels XII, IX–VIII³³ and H3.³⁴

At Bahra 1 several body sherds and some small jars bear a motif of diagonal parallel lines arranged in horizontal bands (**Fig. 5d**). This motif, although seemingly typical for the Hajji Muhammad phase, has a longer life-span; it can be encountered also in the Ubaid 1, 3 and 4 phases. This pattern has many analogies at Hajji Muhammad.³⁵ It can be also found at Tell Abada level III³⁶ and Ras al-Amiya.³⁷ At Eridu this pattern is mostly associated with the Hajji Muhammad style but appears from the Ubaid 1 to Ubaid 3 phases (levels XVII, XV, XIV, XII, X–VIII).³⁸ At Oueili it is encountered both in Ubaid 1³⁹ and

²⁰ Ziegler 1953: Pls 2k, 11b, c, d, k, 14, 15c, 32.

²¹ Stronach 1961: Pl. XLVIII:2.

²² Lebeau 1991b: Pl. I:8, 10, 11.

²³ Jasim 1985: Figs 110d, 152b.

²⁴ Ziegler 1953: Pls 2a, 3d, 4a, 6e, 11a, h, i, n, o, p, q, s, t, 34n-p, 14, 15b, c, 34n, o, p.

²⁵ Stronach 1961: Pls XLVIII:2, XLIX:2.

²⁶ Fujii *et al.* 1981: Figs 35:8, 46:7.

²⁷ Jasim 1985: Fig. 152.

²⁸ Lebeau 1991b: Pl. I:6–11.

²⁹ Safar, Lloyd 1981: Fig. 90:3.

³⁰ Carter, Crawford (Eds) 2010: motif 7.

³¹ Ziegler 1953: Pls 2a, 34p.

³² Stronach 1961: Pls LVII:17, LVIII:21, LIX:2.

³³ Safar, Lloyd 1981: Figs 83:4, 84:8, 88:19.

³⁴ Carter, Crawford (Eds) 2010: Fig. 58:10.

³⁵ Ziegler 1953: Pls 1f, g, k, l, 3a, c, n, 13, 21b, c, 22d, 34e-i.

³⁶ Jasim 1985: Fig. 110a.

³⁷ Stronach 1961: Pl. LIX:15.

³⁸ Safar, Lloyd 1981: Figs 83:14–15, 85:2, 8, 86:23, 31, 88:21, 90:6, 8, 93:10, 98:34.

³⁹ Calvet 1987: Pl. XII:4; Lebeau 1991a: Pl. I:5.



5. Hajji Muhammad ware, Bahra 1: jars (a-d) and fine ware potsherds (e-g) (Drawing: E. Hander, M. Momot, M. Žurek; digitizing: A. Smogorzewska).

Ubaid 4 phases.⁴⁰ In general, in the earlier phases (Ubaid 1 and 2), diagonal lines are usually rendered in reserve.

Vertical multiple zigzags are another ornamental element encountered on vessels in the Hajji Muhammad style. At Bahra 1 they are associated with various shapes – a small bowl with everted rim decorated with denticulation as well as a small jar. Carinated small jars from Tell Songor A⁴¹ and Ur⁴² feature a similar pattern combined with other motifs. Multiple zigzags can be also found on the inside of a medium-sized bowl, the base of which seems to have been solid painted on the inside (Fig. 4e). A similar pattern can be traced inside a bowl from Eridu, level XII,⁴³ which is dated to the Ubaid 2 phase. Vertical multiple zigzags can also be found on pottery from Hajji Muhammad,⁴⁴ Ras el-Amiya,⁴⁵

⁴⁰ Lebeau 1983: Pl. XX:3.

⁴¹ Fujii *et al.* 1981: Fig. 35:4.

⁴² Woolley 1955: Pl. 46:18.

⁴³ Safar, Lloyd 1981: Fig. 88:7.

⁴⁴ Ziegler 1953: Pls 3k, q, 10i, 27e, 29e.

⁴⁵ Stronach 1961: Pls XLVII:5, XLVI:3, LIV:8, 9, jars.

Oueili (Ubaid 1 layers),⁴⁶ sites from the Mandali region⁴⁷ and Abada level II.⁴⁸ At all these sites vessels decorated in this manner are dated to the Ubaid 2 and Ubaid 2/3 periods.

The date-pit motif, usually rendered in negative, was found on some vessels from Bahra 1, mainly on large, straight-sided bowls (**Fig. 4a**). The pattern is rarely encountered on Ubaid vessels at other sites. Single examples appear at Ras al-Amiya,⁴⁹ Hajji Muhammad,⁵⁰ Ur,⁵¹ Tell Abada level II,⁵² sites near Mandali⁵³ and H3⁵⁴ in Ubaid 2 and Ubaid 2/3 phases.

Three examples of the sunburst motif were recognized at Bahra 1. They are associated with carinated bowls (**Fig. 3b**). This centrifugal pattern perfectly fits the inside of the bowls' bases. The sunburst motif can be dated to Ubaid 2 and Ubaid 2/3 period, although it could have appeared as early as Ubaid 1. This motif is known from Hajji Muhammad,⁵⁵ Tell Abada, levels III and II,⁵⁶ Tell Songor A,⁵⁷ Ras al-Amiya,⁵⁸ Eridu, levels XVI and XIV⁵⁹ and H3,⁶⁰ where it also adorns carinated bowls. Pottery sherds with this motif, that could also have belonged to carinated bowls, were registered at sites near Mandali.⁶¹

Six body sherds and one small jar bear a motif composed of small squares, each crossed with a line along a diagonal (**Fig. 5a**). A similar pattern was featured at Hajji Muhammad,⁶² Eridu, levels XVIII–XVI and XIV,⁶³ Tell Abada, level III,⁶⁴ Ras al-Amiya⁶⁵ and Tell Songor B;⁶⁶ at the latter site, it is associated with Halaf pottery (level III). The motif seems to have been most popular in earlier phases of Ubaid pottery, namely Ubaid 1–2, with some survivals in Ubaid 2/3.

There are also some rare patterns in the decoration of the Hajji Muhammad ware from Bahra 1. The inside of a bowl's base was green-olive painted in reserve, leaving a rosette-like motif with four sharp-pointed petals (**Fig. 4f**). The motif has parallels at Hajji Muhammad.⁶⁷

⁴⁶ Lebeau 1991a: Pl. VIII:4; Calvet 1987: Pl. XIV:1.

⁴⁷ Oates 1968: Pl. IX:25.

⁴⁸ Jasim 1985: Fig. 175e.

⁴⁹ Stronach 1961: Pl. LIX:25.

⁵⁰ Ziegler 1953: Pls 33n, 37d:134.

⁵¹ Woolley 1955: Pl. 46:49.

⁵² Jasim 1985: Fig. 168d.

⁵³ Oates 1968: Pl. IX:25.

⁵⁴ Carter, Crawford (Eds) 2010: Fig. 3.17:18.

⁵⁵ Ziegler 1953: Pls 6s, 10p, 33i.

⁵⁶ Jasim 1985: Fig. 110j, 52b.

⁵⁷ Fujii *et al.* 1981: Fig. 35:8.

⁵⁸ Stronach 1961: Pls XLVIII:2, XLIX:1, 2.

⁵⁹ Safar, Lloyd 1981: Figs 96:11, 91:7, 9.

⁶⁰ Carter, Crawford (Eds) 2010: Fig. 3.8:9.

⁶¹ Oates 1968: Pls VI, IX:12, 15.

⁶² Ziegler 1953: Pls 5m, 9c, 13h.

⁶³ Safar, Lloyd 1981: Figs 91:19, 95:15, 97:6, 98:30, 99:13.

⁶⁴ Jasim 1985: Fig. 108d.

⁶⁵ Stronach 1961: Pl. LVI:3.

⁶⁶ Fujii *et al.* 1981: Fig. 48:1.

⁶⁷ Ziegler 1953: Pls 5g, h, k, 18.

MORPHOLOGICAL TYPES

The Hajji Muhammad ware is related with some morphological types, mainly open shapes which prevail in early Ubaid pottery tradition. Carinated bowls are the most characteristic shape of the Hajji Muhammad ware, usually attested at sites with Ubaid 2 pottery (Hajji Muhammad, Eridu, Ras al-Amiya, Oueili, Tell Abada, Tell Songor A and B, H3).⁶⁸ At Eridu, besides carinated bowls (type 24), two other pottery types are considered to have been distinctive for the Hajji Muhammad ware: a wide-mouthed, tall-sided bowl with low carination (type 25), and simple bowls (type 26).⁶⁹

At Bahra 1, as at other Ubaid sites, the Hajji Muhammad style is mainly associated with bowls. They represent different morphological types, technology and size, and include carinated bowls, deep, straight-sided bowls and fine ware small bowls of various types. The style can be also encountered among small and medium-sized jars and some special types including an oval vessel and a tortoise vase.

Carinated bowls are the most popular form in the Ubaid pottery repertoire from Bahra 1 (**Figs 2; 3a-c**). They make up *c.* 20% of the bowl assemblage from the site. Nearly 30 examples have been registered so far. However, they may have been even more numerous if we take into account body sherds that bear decorative motifs typical for carinated bowls. Such bowls are shallow vessels (they have a height to rim diameter ratio of 1:4 or 1:3) and they are large in size, with typical rim diameters of 30–50cm. At Bahra 1, the carinated bowls' rim diameters usually measure *c.* 40cm, but there are also some smaller bowls with rim diameters of *c.* 20–30cm and one bowl with rim diameter of just 14cm. Carinated bowls from Bahra 1 were manufactured in a common ware technology, with fine sand as mineral temper and usually greenish/buff color of the ware.

Carinated bowls were usually decorated with patterns rendered in reserve, with the dense grid motif applied on their inner sides, and compositions of triangles and a single reserve line at the point of carination on their inside. More modest decoration can be encountered on the outer surface of the bowls. It is covered with paint in the upper part, down to the carination line, or – more commonly – with a reserve triangle pattern (**Figs 2a-e; 3a-c**).

One of the carinated bowls was decorated by a composition of wide, painted lines leaving a pattern of triangles in reserve on the outside. The inside of the bowl was adorned with thin diagonal lines in reserve instead of the more usual dense grid pattern.

One of the best-preserved carinated bowls was decorated with the sunburst motif painted on its bottom, on the inside, while above, from the point of carination, its walls were solid painted in dark brown. A line in reserve is traced on the inside, at the carination (**Fig. 3b**).

Some of the carinated bowls bear a less elaborate decoration. They are solid painted inside and outside, in the latter part down to the line of carination (**Fig. 2b**). In one case a carinated bowl is painted just on the outside, down to the point of carination (**Fig. 2c**). In the case of another bowl, the decoration consists of two encircling lines in reserve in a dark

⁶⁸ Oates 1960: 35.

⁶⁹ Safar, Lloyd 1981: 177.

brown field which covers the entire inner surface, while the outer surface is solid painted from the rim down to the point of carination (**Fig. 3a**). Carinated bowls with a similar decoration of the inside can be found in Oueili (Ubaid 2 layers).⁷⁰ Carinated bowls with plainer decoration can also be encountered at Bahra 1, including a bowl covered with light slip with a brown horizontal line painted on the inside and a wavy line painted on the outer surface (**Fig. 2f**). It finds analogies among bowls from Hajji Muhammad.⁷¹

Carinated bowls in the Hajji Muhammad style were extremely popular at the site of Hajji Muhammad itself⁷² and at Ras al-Amiya,⁷³ but some were also encountered at Abada level II,⁷⁴ Tell Songor A,⁷⁵ Tell Songor B⁷⁶ and Oueili⁷⁷ in Ubaid 2 and 2/3 contexts. Carinated bowls with the dense grid pattern are also known from the Central Gulf (Ain Qannas)⁷⁸ and H3.⁷⁹

Deep, straight-sided bowls with simple or everted rims constitute a distinct group of pottery vessels at Bahra 1. They have rim diameters of 30–40cm. Some were decorated in the reserve technique although, compared with carinated bowls, their decoration was less elaborate. The most popular decoration in this category of vessels was the date-pit motif in reserve (**Fig. 4a**). The bowls' outer surface was usually covered with light brown paint, except for negative date-pit patterns revealing a light color of the slip. Other large bowls decorated in the reserve technique were adorned with denticulation at the rim. Two such bowls bear reserve lines on the outside, while inside there is a solid painted band below the rim (**Fig. 4b**). Both inner and outer surfaces of two other bowls were solid painted. One of the bowls, with missing base, was decorated with a wavy line between two horizontal lines. Similar bowls can be found at i.a. Tell Songor B level I⁸⁰ where vessels of this kind have been found in quantity, and at Ras al-Amiya⁸¹ and Hajji Muhammad.⁸² Such bowls, decorated with a wavy line between parallel lines, are dated at these sites to the Ubaid 2 and 2/3 phases.

Also some small, fine-ware bowls from Bahra 1 have been rendered in the Hajji Muhammad style. They usually belong to thin-walled bowls with simple, open rims, made of well-levigated clay. These bowls were decorated with a dense grid and horizontal lines in reserve (**Fig. 5e-f**). Some thin-walled bowls from Ras al-Amiya are decorated in a similar manner.⁸³

⁷⁰ Lebeau 1991b: Pl. I:6, 7.

⁷¹ Ziegler 1953: Pl. 15e.

⁷² Ziegler 1953: Pls 11, 14, 15, 16a.

⁷³ Stronach 1961: Pls XLVIII:2, XLIX:1–2.

⁷⁴ Jasim 1985: Fig. 152.

⁷⁵ Fujii *et al.* 1981: Fig. 35:8.

⁷⁶ Fujii *et al.* 1981: Fig. 46:7.

⁷⁷ Lebeau 1991b: Pl. I:6–11.

⁷⁸ Masry 1997: Figs 12, 18; Burkholder 1972: 267.

⁷⁹ Carter, Crawford (Eds) 2010.

⁸⁰ Fujii *et al.* 1981: Fig. 46:10.

⁸¹ Stronach 1961: Pl. LI:8, 10, 11.

⁸² Ziegler 1953: Pl. 23b.

⁸³ Stronach 1961: Pls LVIII:3, 6, 18; XLVII:1, 2.



6. A vessel with oval base in Hajji Muhammad style, Bahra 1 (Phot. A. Smogorzewska).

Jars in Hajji Muhammad ware comprise several morphological types. The most common are jars with high, cylindrical, slightly curved necks and globular or ovoid bodies. Neckless jars as well as jars with straight, cylindrical or short curved necks were also recorded. Unlike the large bowls, large jars in the Hajji Muhammad phase are usually plain, with but a few rare examples covered with painted decoration. Small and medium-sized jars were more often decorated in the Hajji Muhammad style. Some of them are elaborately decorated in the reserve technique, with horizontal chevrons or squares with diagonals combined with horizontal lines in reserve (**Fig. 5a**). One of the jars was red painted, leaving horizontal chevrons in reserve separated by thin horizontal lines in reserve (**Fig. 5c**). Similar chevrons adorn a small painted jar from Ras al-Amiya.⁸⁴ Another small jar was purple painted in diagonal parallel lines set in horizontal bands and separated by painted horizontal bands (**Fig. 5d**). Upper part of the jar is solid painted, with a thin line in reserve. Some jars were solid painted, with just a line in reserve accentuating the juncture of the neck with shoulders.

An oval vessel in the reserve style, with a flat base is unique among the Bahra 1 pottery assemblage (**Fig. 6**). Its decoration consists of bands with zigzags in reserve (the zigzags were obtained by scratching off the dark grey paint on the surface of the vessel), painted vertical zigzags and date-pit patterns in reserve. The shape of the vessel finds analogies from Tell Songor B⁸⁵ and Ras al-Amiya.⁸⁶

⁸⁴ Stronach 1961: Pl. LIII:9.

⁸⁵ Fujii *et al.* 1981: Fig. 46:1.

⁸⁶ Stronach 1961: Pl. LI:13.

A tortoise vase decorated in reserve was also part of the Bahra 1 pottery assemblage (Fig. 3d). It is an example of a characteristic Ubaid 3 pottery type associated with Ubaid 2 decoration in the Hajji Muhammad style. The tortoise vase from Bahra 1 was olive painted in reserve, with hourglasses and vertical strokes set alternately in horizontal bands. Vertical lines were also used in the composition. The decorative patterns and the base of the vessel preserved the original very pale greenish color of the clay. Vertical lines and reserve decoration are associated with some other tortoise vases, as can be exemplified by the vessels from Ras al-Amiya⁸⁷ and Tell Abada level II.⁸⁸

HAJJI MUHAMMAD WARE – STYLE AND PERIOD

While the distinct character of the Hajji Muhammad ware is not questioned, some doubts have been raised about the usefulness of Hajji Muhammad ware as an indicator of period.⁸⁹ That is because pottery types and characteristic traits of style that are generally assumed to be diagnostic of the Hajji Muhammad phase, are also encountered beyond the Ubaid 2 phase. Features characteristic for the Hajji Muhammad phase began to appear already by the end of the Eridu phase but are also associated with the earlier part of Ubaid 3. Some authors define the Hajji Muhammad ware as belonging to a transitional period covering the later part of Ubaid 1 and early Ubaid 3 period.⁹⁰ The presence of identical forms and decorative motifs in Ubaid 1 and Ubaid 2 on the one hand, and Ubaid 2 and Ubaid 3 on the other attests to a considerable continuation of the pottery tradition. Ubaid 2/3 phase, where pottery types characteristic both for Ubaid 2 and Ubaid 3 co-occur, was recognized at Bahra 1 and many other Ubaid sites. There are also some pottery data suggesting the existence of a Ubaid 1/2 pottery horizon at Bahra 1, showing that also these phases of Ubaid pottery traditions overlapped to some extent. It must be kept in mind, that not just the mere presence of diagnostic pottery types and decorative motifs, but also their frequency of appearance is crucial in defining chronological phases. Therefore, the Hajji Muhammad *phase* can be recognized when the Hajji Muhammad *style* pottery becomes predominant in a pottery assemblage.

Despite the doubts concerning the chronological value of the Hajji Muhammad ware as a precise chronological marker, the frequent occurrence of Hajji Muhammad pottery at Bahra 1 can be taken as an argument in favor of an early date of the site's foundation. Traits characteristic for Hajji Muhammad style decoration, such as the dense oblique grid, triangles in reserve, zigzags and lines in reserve, diagonal lines and vertical multiple zigzags are among the most frequent motifs of decorated Ubaid pottery at Bahra 1. They are common at Hajji Muhammad, Eridu, Ras al-Amiya, Tell Abada levels II/III, Tell Songor B

⁸⁷ Stronach 1961: Pl. LVI:3.

⁸⁸ Jasim 1985: Fig. 192b.

⁸⁹ Crawford 2010: 163.

⁹⁰ Crawford 2010: 166. Also Safar and Lloyd define the Hajji Muhammad phase as transitional between Eridu and Ubaid 3 (Safar, Lloyd 1981: 176). Some doubts about the Hajji Muhammad phase were raised by J. Oates, as the Hajji Muhammad ware often appears alongside Ubaid 3 pottery (Oates 1976: 22).

and Oueili in Ubaid 2 levels, but also in the Ubaid 2/3 levels, when many survivals of the Hajji Muhammad style can be found. At Eridu, the Hajji Muhammad ware is characteristic of levels XIV–XII.⁹¹ At this site, Hajji Muhammad pottery starts in level XVII, when the characteristic parallel lines pattern appeared on tall-sided bowls.⁹² Some Hajji Muhammad features, such as diagonal lines, squares with diagonals, a line in reserve, a sunburst motif, vertical zigzags or carinated bowls appear at Eridu as early as Ubaid 1.⁹³ Hajji Muhammad ware is found in quantity in levels XIV–X and occurs as late as levels IX–VIII, where pottery decorated with dense grid, zigzags in reserve as well as tall-sided bowls with diagonal lines can still be encountered.

Carinated bowls rendered in reserve style can be regarded as an ‘index fossil’ type for the Hajji Muhammad phase.⁹⁴ They are especially diagnostic for Ubaid 2 and 2/3 phases. At Eridu, carinated bowl (type 24) is the most popular shape in levels XIV to XII (Ubaid 2),⁹⁵ but it occurs also in levels X–VIII (rim fragments with dense grid pattern),⁹⁶ which belong to the Ubaid 3 phase. In Eridu and Oueili, the carinated bowl form could have appeared as early as Ubaid 1.⁹⁷

The pottery assemblage in the Hajji Muhammad style from Bahra 1 represents a variety of forms and decorative motifs, comparable with South-Mesopotamian sites. Strikingly numerous features – morphological types and decorative motifs – of the pottery from Bahra 1 (carinated bowls with dense grid and triangles, triangles motifs, diagonal parallel lines, big bowls decorated with wavy line between parallel lines, squares with diagonals, multiple zigzags, the rosette-like motif, to name but a few) have parallels at Hajji Muhammad, located, as the crow flies, about 280km from Bahra 1. These parallels may be interpreted as indication that the same chronological period is represented at both sites. They may also point to direct contacts of inhabitants of Bahra 1 with that South-Mesopotamian site.

UTILITARIAN AND SYMBOLIC ASPECTS

Hajji Muhammad ware is usually considered a special-purpose pottery, which implies ceremonial or display character of pottery vessels.⁹⁸ Its function must have been more varied, however, as is attested by the Bahra 1 pottery assemblage, which represents a wide array of pottery types. In the Gulf, Ubaid pottery is usually assumed to have been used for serving and display and as important element in ceremonial gifts’ exchange.⁹⁹ Taking into account all the pottery types from the Hajji Muhammad phase from Bahra 1,

⁹¹ Oates 1960: 33.

⁹² Safar, Lloyd 1981: 177.

⁹³ Safar, Lloyd 1981: Figs 99:13, 98:34, 96:11, 95:15, 93:10.

⁹⁴ Oates 1960: 35.

⁹⁵ Safar, Lloyd 1981: Fig. 90:3–5.

⁹⁶ Safar, Lloyd 1981: Figs 83:9, 85:13, 86:30, 87:21.

⁹⁷ Calvet 1983: Pl. IV:3, 4; Safar, Lloyd 1981: Figs 92:15, 96:2, 8.

⁹⁸ Crawford 2010: 166.

⁹⁹ Carter 2006; Carter, Crawford (Eds) 2010; Crawford 2010: 166.

luxury tableware that could have been used for serving and display constitutes a significant group. It is, however, accompanied by Ubaid vessels used in household activities for storing and processing various products, which are usually rather rare findings at other Gulf sites.¹⁰⁰

In general, Hajji Muhammad pottery is mainly represented by open forms. At Bahra 1 they make up *c.* 66% of the pottery assemblage, whereas at nearby H3, dated to the Ubaid 2/3 phase, they account for 81% of the Ubaid pottery assemblage represented at the site.¹⁰¹ Of significance among them is the considerable number of open bowls. Carinated bowls, most commonly associated with the Hajji Muhammad style, could have been used for serving food. They vary in size, but most common are large bowls with rim diameters of 30–40cm (some up to 50cm at the rim). The carinated bowls and plates usually were family-sized vessels – an indication that communal consumption from large bowls could have been practiced at Bahra 1 and other Ubaid settlements. Beakers or cups, used for drinking, are rare in the Hajji Muhammad pottery repertoire.¹⁰² The role of drinking vessels could have been played by bowls of smaller dimensions which were encountered at Bahra 1.

Large, straight-sided bowls could have been used for storing or processing food products. Compared with carinated bowls, they are much deeper, with capacities reaching 8 litres (as can be estimated judging by some better-preserved examples from Bahra 1). The presence of painted decoration, although less elaborate compared to carinated bowls, suggests that esthetic value had been attached to them and apart from having a functional purpose, they could have also been put on display while presenting food.

Closed forms, such as jars and jugs, are less numerous among the Hajji Muhammad vessels. At Bahra 1 closed forms make up *c.* 34% of the Ubaid pottery assemblage, which is a higher value compared with other Ubaid sites, including H3 where these vessels account only for 16% of Ubaid pottery.¹⁰³ Among the closed forms, the Hajji Muhammad style is usually associated with small and medium-sized jars which could have been used for serving or storing small quantities of food or valuable substances. Large jars are usually undecorated. They could have been used for storing or transporting various products. An extra large jar, reaching *c.* 90cm in height, with applied knobs and painted decoration covering its upper part, is an exceptional finding among the storage vessels from Bahra 1.

As mentioned above, both utilitarian and symbolic aspects of Hajji Muhammad pottery should be considered when analyzing the function of the pottery. Apart from their practical uses, vessels 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 pots may have been communicators conveying their users' social, religious or tribal

¹⁰⁰ Ubaid pottery is accompanied at Bahra 1 and other Ubaid-related sites in the Gulf by Coarse Red Ware. It was mainly used in domestic context for cooking and processing of various products.

¹⁰¹ Carter 2006: 59.

¹⁰² At the Hajji Muhammad site, only two potsherds might have come from beakers (Ziegler 1953). One beaker was found at Ras al-Amiya (Stronach 1961: Pl. LVII:1). Also at Bahra 1 just one beaker was registered. Some examples were recognized in Oueili in Ubaid 2 layers (Lebeau 1991b: Pl. II:5–7).

¹⁰³ Carter 2006: 59.

affiliations. Interpretations of Ubaid pottery discovered on Gulf sites focus on the vessels' symbolic function as a major conveyor of social status and elements of display – an important factor in the community's social life.¹⁰⁴ The use of the lavishly decorated Ubaid vessels is often envisaged in context of festivals and social gatherings, during which they were used for serving and displaying food.¹⁰⁵ However, the pottery evidence from Bahra 1 reveals a more varied character of the Hajji Muhammad ware, adding an utilitarian aspect to its special-purpose function.

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¹⁰⁴ Carter 2006: 58–59.

¹⁰⁵ Karsgaard 2010: 54; Crawford 2010: 166.

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