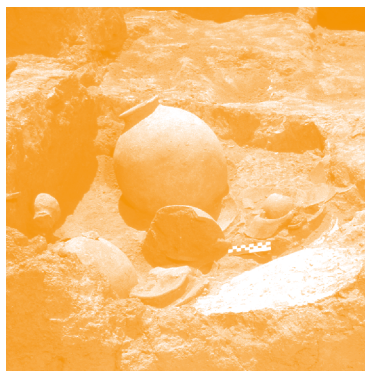


# White-plastered basins from Tell Djassa el-Gharbi in northeastern Syria and their possible functions



**Abstract:** A review of archival documentation from Tell Djassa el-Gharbi in northeastern Syria and comparative data from sites published in the last three decades have led to a reassessment of some features discovered at the site. This paper presents white-plastered basins uncovered in the topmost occupational stratum dated to the late phase of ED III/EJZ III or the beginning of the Akkadian period. The installations are divided into three general categories based on their morphology, associated features, and possible functions. Analogies to each category of basins are discussed. The Locus 1 installation is discussed in detail. Contents of a unique pottery deposit found inside this installation are described, and possible functions of this feature are proposed following analysis of the vessels and parallel finds.

**Keywords:** white-plastered basins, household installations, technological modifications of pottery, food production, beer production, seed oil production, 3rd millennium BC, Khabur Basin, Syria

## INTRODUCTION

The site of Tell Djassa el-Gharbi is located in the Khabur Basin (northeastern Syria), northwest of the city of Hassake [Fig. 1]. Three seasons of excavations were conducted on the site between 1988 and 1990 by a team from the Polish Centre of Mediterranean Archaeology, University of Warsaw

**Gawel Rzeźnik**

Independent researcher  
PCMA Associate

**Acknowledgments**

Access to archival documentation from fieldwork at Tell Djassa el-Gharbi was provided to me by courtesy of the Polish Centre of Mediterranean Archaeology, University of Warsaw. I would like to express my sincere gratitude to Professor Piotr Bieliński for providing invaluable information on the site and the installations found therein.

(PCMA UW), as part of the International Salvage Program of the Hassake Dams Area (Bieliński 1991: 94; Reiche 2006: 100).<sup>1</sup>

The tell is around 16 m high, with the top rising to 333.8 m above sea level. It is conical in shape, about 150 m in diameter, and covers an area of approximately 2 ha (Bieliński 1990: 17; Reiche 2006: 100).<sup>2</sup> Four occupational layers, all of them attributed to the Early Dynastic III or Akkadian periods, were distinguished in the course of excavations (Bieliński 1990: 17–21; 1991: 94–99).<sup>3</sup> The site functioned

as a small, possibly fortified rural settlement (Bieliński 1991: 96).

Among several intriguing features of the site are numerous white-plastered basins registered in the topmost occupational stratum designated as Layer I (Bieliński 1990: 19). The layer, over 1 m thick and consisting of three building levels, should be dated to the late phase of the ED III/EJZ III or the beginning of the Akkadian period (Bieliński 1990: 18–19).

All the basins were replastered and renewed multiple times, pointing to

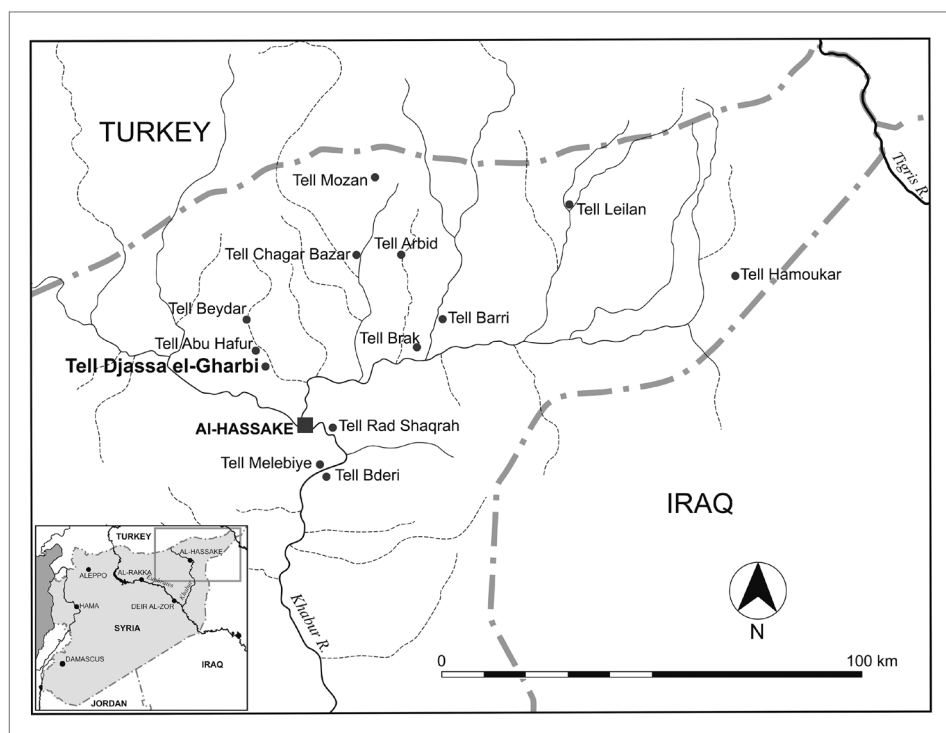


Fig. 1. Map of northeastern Syria (Base map by M. Momot, modified by G. Rzeźnik)

- 1 The 1988 season was supervised by Prof. Maria Krogulska, and the 1989–1990 seasons were directed by Prof. Piotr Bieliński.
- 2 For more details regarding the excavation methods and location of individual trenches, see Bieliński 1990: 17–18; 1991: 94–95.
- 3 Hellenistic potsherds were also found at the site (Reiche 2006: 100).

their significance and repeated usage. They have different shapes and sizes and can be divided into several broad categories on the basis of their dimensions, adjoining features/artifacts, and possible functions.<sup>4</sup> Each basin could have been used for multiple purposes, hence some of them can be assigned to more than one of the proposed categories. Unfortunately, nearly all of them were poorly preserved when excavated.

Most of these installations are presented here for the first time.<sup>5</sup> The author of this paper did not take part in the Tell Djassa el-Gharbi excavations, so all the research on the unpublished white-plastered basins, features and artifacts associated with them is based on archival documentation (i.e., photos, drawings, notes, excavation journal), as well as personal communication with the director of the 1989–1990 excavation seasons, Professor Piotr Bieliński.

## BASINS ACCOMPANIED BY FIRE INSTALLATIONS

Basins of the first group are relatively small, roughly oval in shape, and were

registered in the same rooms and levels as fire installations, i.e. fireplaces and *tannur*



Fig. 2. Sector A, Locus 3; remains of a *tannur* oven in the foreground; two badly preserved white-plastered basins in the background (PCMA UW | photo A. Reiche)

4 White-plastered basins have been documented on a number of other sites in northeastern Syria. For some examples and possible functions of these installations, see Pfälzner 2001: 167–169.

5 See Bieliński 1990: 19 for a previous report on the white-plastered basins at Tell Djassa el-Gharbi.

ovens. An example of such a set of installations was discovered in Locus 3, Sector A, in the lowest level of Layer I [Fig. 2]. In this room, two adjoining oval white-plastered basins were found together with a *tannur*. They were replastered multiple times, filled with brick fragments and raised along with the floor level.

A similar set of installations was discovered in Locus 31, Sector N, in the latest phase of Layer I. This room was part of a domestic unit fully uncovered during the 1990 season (Bieliński 1991: 96–98; Koliński 1996: 139). In it, an oval basin was found near a *tannur* oven and a fireplace [Fig. 3]. The basin is a later addition;

in an earlier phase of the room, the only installation was a *tannur* oven.

Sets comprising basins and fire installations from levels dating to the 3rd millennium BC were discovered at numerous sites in northeastern Syria. Among them are other tells excavated by the same PCMA team as part of salvage operations in the Hassake dams area [see Fig. 1], including Tell Abu Hafur, located just 2.5 km north of Tell Djassa el-Gharbi (Locus 20; Koliński and Ławecka 1992: 188–189), and Tell Rad Shaqrah (e.g. Locus 47;<sup>6</sup> Bieliński 2005: 34–35).<sup>7</sup> Other examples were found at Tell Beydar (Lebeau and Suleiman 2008: 11), Tell Melebiye (Lebeau



Fig. 3. Sector N, Locus 31; a white-plastered basin on the left; a *tannur* oven in the center; a fireplace on the right (PCMA UW | photo A. Reiche)

6 Apart from the mud-plastered oval basin, one other “basin” was found in this room. It was rectangular and constructed of mudbricks placed on edge (Bieliński 2005: 35), and it differs significantly from the installations which are the subject of this paper. However, it could be a part of a flour grinding installation, similar to “grinding tables” found at other sites in the Khabur Basin (Pfälzner 2001: 139–146).

7 Although those basins are mud-plastered rather than white-plastered, their function could have been the same.

1996: 134), Tell Gudeda (Fortin 1990: 572), and Tell Chuera (Pfälzner 2011: 159).

Basins found in close proximity to fire installations are usually interpreted as surfaces for use in food production, i.e. flour preparation and dough mixing/

kneading (Fortin 1990: 572; Rova 2014: 139). Dough for bread or cake prepared in a basin could be quickly and efficiently transported to a nearby oven or fireplace used to make food for a given household or institution.

## LARGE AND IRREGULAR BASINS

The second type of white-plastered basins found at Tell Djassa el-Gharbi is installations characterized by larger sizes and irregular shapes. Examples of such features were discovered in Sectors A and B [Fig. 4] in the topmost level of Layer I (Bielinski 1990: 18–19).

In Sector A, two basins were found, one on top of the other. The earlier one was smaller and roughly angular in shape, whereas the later one was larger and oval [see Fig. 4]. Apart from pottery finds, no additional features or installations pointing to their functions were reported from the context associated with these basins. Both were repeatedly replastered.

The basin from the border between Sectors A and B is the largest one found at the site, measuring 2.5 m × 1.8 m (Bielinski 1990: 19). It is also poorly preserved, with most of the walls missing. The associated features include a plastered inlet channel [see Figs 4, 6] located at the southern edge of the basin, a bitumen floor to the southwest, and a large saddle quern to the northwest of the basin [see Figs 4, 5].

Frequently renewed white-plastered basins characterized by large dimensions

and association with querns or a grinding installation were discovered on a number of other sites in northeastern Syria, often in contexts suggesting large-scale food production.

Several *tannur* ovens, three white-plastered basins and over 40 basalt grinders and grinding stones were found at Tell Gudeda, in a sector devoted to “industrial” scale food processing (Fortin 1990: 572–573). One of the basins, measuring 1.40 m × 1.80 m, had a depression in the center (Fortin 1990: 572), which could facilitate collection of the ground flour. A roughly comparable feature was found in Room 1 in the TC area building at Tell Brak, where a white-plastered sloping surface with a small jar set into the floor was located beneath flour grinding installations (Emberling et al. 1999: 9–12).<sup>8</sup>

At Tell Beydar, a significant concentration of large white-plastered basins was uncovered alongside *tannur* ovens, grinders and grinding stones in the so-called “Northern Building”, which was dated to the EJZ IIIa period and interpreted as a possible centralized bread production area (Rova 2014: 138–139). The basins could

8 Sometimes this kind of sloping surface was used instead of white-plastered basins for facilitating the collection of flour, e.g. in the “Northern Building” at Tell Beydar, where in fact both types of features may have been used (Rova 2014: 139–140). This might raise a question whether different types of flour grinding installations could correspond to the preparation of different products (e.g. types of flour) or stages of food production.

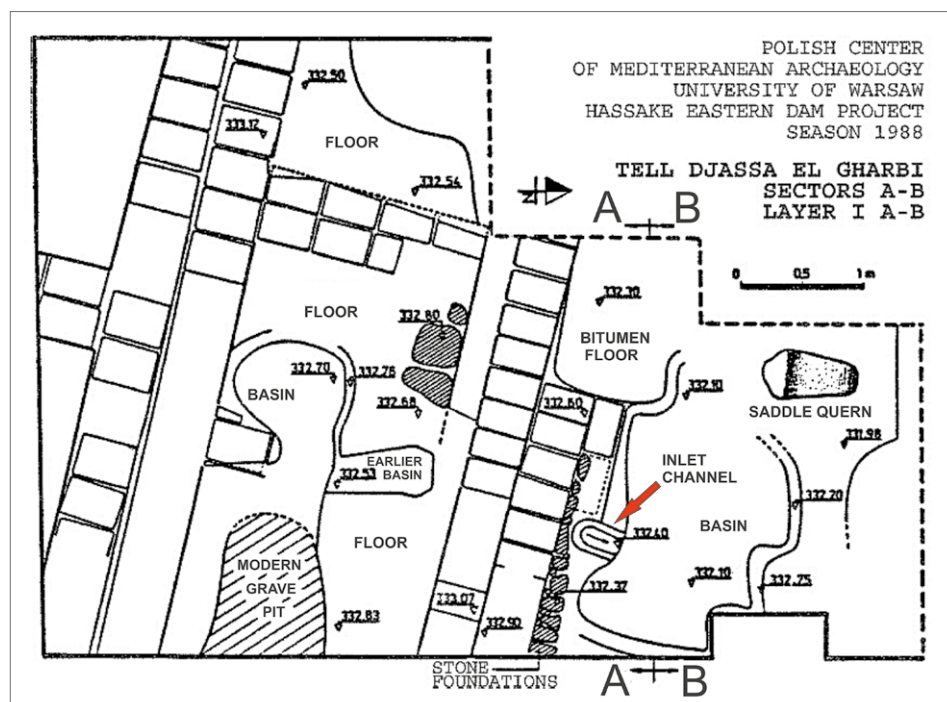


Fig. 4. Topmost phase of Layer 1 in Sectors A-B (After Bieliński 1990: Fig. 1; modified by G. Rzeźnik)



Fig. 5. General view of Layer 1 in Sectors A-B, view from the west; white-plastered surface of the basin on the border between Sectors A and B on the left, along with a big saddle quern next to the installation (PCMA UW | photo F. Stępniewski)

have been used for collecting fresh flour from the grinding stones. Some were also utilized for dough mixing/kneading like the abovementioned smaller basins associated with fire installations (Rova 2014: 139).

Another example, also from Tell Beydar, comes from a building interpreted as a “bakery” (EJZ IIIb period). Apart from *tannur* ovens, the building featured large white-plastered basins found below “grinding tables” (Rova 2014: 144). These installations were clearly used for collecting freshly ground flour, as at most other northeastern Syrian sites on which

“grinding tables” have been discovered (Pfälzner 2001: 167–168).<sup>9</sup>

Similarly to the parallels mentioned above, the basin found on the border between Sectors A and B at Tell Djassa el-Gharbi could have been used for collecting ground flour. It was probably not part of a large-scale production facility, but the sheer size of the installation points to this feature’s considerable importance. However, none of the basins mentioned above were associated with an inlet channel, so the function of the Tell Djassa el-Gharbi installation may have been more versatile.

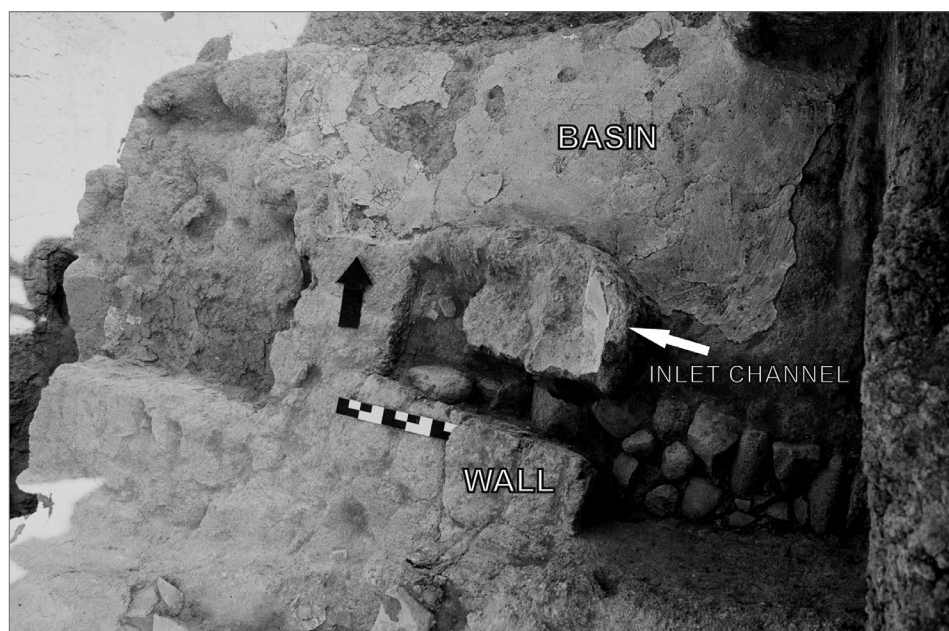


Fig. 6. Inlet channel connected to the white-plastered basin on the border between Sectors A and B (PCMA UW | photo F. Stępniewski, modified by G. Rzeźnik)

- 9 To the list of possible “grinding tables” from Syrian sites one could add the installation from Tell Rad Shaqrah, mentioned above, and possibly a double “grinding table” from Room L14 at Tell Arbid, interpreted by the excavators as a double storage bin (Smogorzewska 2019: 38). This installation bears a resemblance to “grinding tables” from Tell Selenkahiye (van Loon 1979: Fig. 19; Pfälzner 2001: 144–145) and Tell Brak (Emberling et al. 1999: 9–12). Presumably, instead of white-plastered basins, pottery jars were placed at the outlet of this grinding installation to serve as flour collectors, as in Pfälzner’s reconstruction of a “grinding table” from Tell Bderi (Pfälzner 2001: Abb. 72).

## BASINS WITH INLET CHANNELS

The last type of white-plastered basins found at Tell Djassa el-Gharbi are installations with inlet channels, pre-

sumably connected with liquid management. Two such basins were uncovered at the site.

The first is the basin on the border between Sectors A and B, discussed above in connection with possible flour grinding activities [see *Figs 4–6*]. Apart from a saddle quern, also associated with this installation were a plastered inlet channel to the south of the basin [*Fig. 6*] and a waterproof bitumen floor to the southwest of it.

The second installation comprises a group of connected basins with an inlet channel connected with the largest one, discovered in Locus 1, Sector K (Layer I). At least three phases of use of this installation were distinguished. In the first, the basin was relatively small, and its surface was repeatedly replastered. By the second phase, the bottom was raised by about 10 cm, and the basin measured approximately 1.7 m × 0.9 m and was 0.4 m deep (Bieliński 1990: 19). Two smaller basins were connected to it: one, ovoid in shape (Bieliński 1990: 19), adjoined the top of the southern wall of the main basin, and the other one, unfortunately badly preserved, was found to the northwest [*Figs 7–9*].<sup>10</sup> The inlet channel to the main basin was discovered to the southeast of the installation, under a later mudbrick wall.<sup>11</sup> In the construction of the last (third) phase, the basin was filled with a pottery deposit (see below) and the floor was raised by about 0.4 m. A large storage jar was also set into the ground adjacent to the basin [see *Figs 7–9, 14*]. This installation is



Fig. 7. Top: partly excavated Locus 1 installation, view from the west; bottom: second phase of the installation with the pottery deposit and two smaller basins, marked with a dotted line; the remains of the third phase marked with a continuous line (PCMA UW | photos P. Ciepielewski, bottom image modified by G. Rzeźnik)

<sup>10</sup> The southern wall of this basin was badly damaged by later activities at the site [see *Fig. 8*].

<sup>11</sup> Unfortunately, no photos or further details regarding this channel are available.

unusual not only at the site of Tell Djassa el-Gharbi but also in the entire region of northeastern Syria.

White-plastered basins featuring channels are rarely reported from northeastern Syrian sites. Usually the channel is a drain from the installation, or the authors of the excavation reports do not specify its shape, possible function or

elevation in relation to the basin itself (e.g. Fortin 1990: 553; Lebeau 1996: 132; Pfälzner 2001: 167–169).

To my knowledge, the second phase of the installation in Locus 1 at Tell Djassa el-Gharbi, featuring the inlet channel, smaller basins, and the main basin characterized by an unusual depth and morphology, finds no direct parallels in northeastern Syria.

## THE LOCUS 1 POTTERY DEPOSIT

Another unusual feature of the Locus 1 installation is a substantial pottery deposit discovered inside it [see *Figs 7, 10, 11*]. It comprised a total of 29 vessels (Bieleński 1990: 19), some of them with evidence of technological modifications, which, if the vessels constituted a set

used in connection with the basin, may suggest a possible function(s) of this installation.

A globular jar with a short, curved neck and restricted orifice discovered inside the basin had an intentionally pierced base and was extensively coated



Fig. 8. Last (third) phase of the white-plastered installation in Locus 1, view from the east; storage jar adjacent to the last phase visible on the left; small, ovoid white-plastered basin connected with the previous phase of the installation visible in the center; later burial (with a white shell on top) next to the small basin (PCMA UW | photo P. Ciepielewski)

with white plaster on one of its sides [Figs 11, 12]. The coating was the same substance as on the surface of the white-plastered basins (Piotr Bieliński, personal communication, 2022). The amount of coating used suggests that it served a different purpose than repairing the pot's cracked body or plugging a hole in it. Also, a part of another pottery vessel was found inside the jar.

In addition, two jars found in the deposit, likewise characterized by globular shapes, short and curved necks, and rounded bases, had intentionally pierced holes in the midsections of their bodies [Fig. 13]. In the case of one vessel, the hole was plugged with a plaster stopper [see Figs 13:B, 14].<sup>12</sup>



Fig. 9. Fully excavated Locus 1 installation (PCMA UW | photo P. Ciepielewski)

Production and usage of pottery vessels with intentionally pierced bases or holes in various sections of their bodies has a long tradition in the ancient Near East. At Tepe Gawra, a set of very unusual pottery vessels, some of them with holes in the bases as well as in the middle and upper sections of the bodies, was found in levels dating as far back as the late 5th millennium BC. Levey (1955a; 1955b) interprets them as parts of a distillation, sublimation and extraction apparatus, a hypothesis which was corroborated by archaeological experiments conducted by a team from the Cyprus Perfumery Theme Park (Belgiorno 2020). These experiments showed that reed rods could be inserted into the holes for their technological use in distillation, and the holes themselves could be plugged and unplugged with stoppers when needed (Belgiorno 2020: 10–17).

A jar with a small hole near its base was found in Godin Tepe, Iran, and dated to the second half of the 4th millennium BC. Both the context in which this vessel was discovered and the results of laboratory analysis of red residue found inside suggest that it was used for storage of a product derived from grapes, most probably wine (Badler 2003: 47–50). The hole could have been used as a counter-pressure for pouring wine from the top of the vessel or for draining the liquid without disturbing the organic material accumulated below (Badler 2003: 50).

Large jars with pierced holes, dated to the Early Dynastic period, were also discovered during the Oriental Institute

12 For more details regarding this type of vessels and some analogies from northeastern Syria, see Smogorzewska 2019: 130.



Fig. 10. Partly excavated pottery deposit from the second phase of the white-plastered installation in Locus 1, view from the north; in the foreground a small, ovoid white-plastered basin connected to the main one [see Fig. 8]; remains of the third phase of the installation on the left (below the scale) and upper right (PCMA UW | photo P. Ciepielewski)



Fig. 11. Partly excavated pottery deposit from the second phase of the white-plastered installation in Locus 1, view from the south; in the background, globular jar with intentionally pierced base and a thick coating of white plaster (PCMA UW | photo P. Ciepielewski)

expedition in the Diyala region (Paulette 2020: Fig. 5.3). On the basis of ancient texts and later analogies, it was concluded that some of them may have been used for beer production (Paulette 2020: 70).

At Tell Brak, an unusual jar with a pierced spout in the lower section of its body was found in a layer dating to the Akkadian period (Oates 2001: 180).

Some kind of liquid, perhaps beer, may have been strained thanks to this feature.

A large variety of pottery vessels with intentionally pierced holes was also discovered in a Late Bronze Age settlement at Tell Sabi Abyad, a site located on the Balikh River in northern Syria (Duis-termaat 2007). The function of one jar characterized by a pierced base seems to



Fig. 12. Globular jar from the deposit, with intentionally pierced base and a thick coating of white plaster on one of its sides (PCMA UW | photo P. Ciepielewski)



Fig. 13. Two globular jars from the pottery deposit in Locus 1, with intentionally pierced holes in the midsections of their bodies; hole in one of the vessels (B) plugged with white plaster [see Fig. 14 for detail of the plug] (PCMA UW | photo P. Ciepielewski)

have been the storage or management of water, as it was covered with bitumen on the inside and had a cuneiform sign “A”, meaning “water”, incised in the upper part of its body (Duistermaat 2007: 411, Fig. IV.67.e). Unfortunately, the functions of other vessels with pierced holes and spouts from this site are not as evident (e.g. Duistermaat 2007: Fig. IV.91.z–ab, Fig. IV.95.i).

A substantial assemblage comprising open vessels of a distinctive type, with a hole in the base and varying in capacity, was also found at Tell Sabi Abyad. They were identified as soaking and germination vessels used in beer production, called *namzītu* or *nazzītu* in ancient cuneiform texts (Duistermaat 2007: 252–253, Fig. VI.18). One of them also featured a strainer (Duistermaat 2007: Figs IV.59.a, VI.11), which presumably had a similar function as the perforated spout of the aforementioned jar from Tell Brak.

The *namzītu* vessel, and other shapes with pierced bases, were also discovered in contexts related to beer production at other Late Bronze Age sites in Syria and Iraq, namely at Tell Hadidi (Dornemann 1981: Figs 3, 8:1–4; Gates 1988: Fig. 1:a–c), Tell Bazi (Zarnkow, Otto, and Einwag 2011: Fig. 4.1 right), Khani Masi (Perruchini et al. 2018: Fig. 5), and Tell Khaiber (Calderbank 2021: Fig. 9:a–b). The *namzītu* vessels were probably used together with vessel stands (*namḥārū*) (Calderbank 2021: 45), so that the waste water from the vat could be drained through the hole in the

base, as suggested also by the discovery of both these shapes in the same context at Tell Sabi Abyad (Duistermaat 2007: Fig. VI.12).

A well-known cold mashing process experiment was carried out by the excavators of the Late Bronze Age settlement at Tell Bazi (Zarnkow, Otto, and Einwag 2011). The first step of beer production was malting: soaking and germination could be carried out in the hole-bottomed vessel (*namzītu*). Next, the germinated and dried malt was milled on a saddle quern, which proved to be better suited for the task than mortars. The last steps included mashing and fermentation in a big jar set in the ground.

The vessel with a pierced base found in the basin deposit in Locus 1 at Tell Djassa el-Gharbi [see Fig. 12] could be a significantly smaller and earlier version (about a thousand years older than the Late Bronze Age specimens mentioned above) of a soaking and germination vessel. It may have been used for small-scale beer production (cold mashing process), like the hole-bottomed vessels from Late Bronze Age houses at Tell Bazi (Zarnkow, Otto, and Einwag 2011: 51–52), or for preparing some other kind of food or commodity. The thick layer of white plaster found on the jar suggests that it may have been attached to the inlet channel of the main basin or to one of the basins themselves.<sup>13</sup> Waste water from the jar could have been strained through mats and drained into the basin.<sup>14</sup>

13 See Reichel 2011: Fig. 4 for an example of a vessel with a hole in the base fixed above a (drain) channel from Hamoukar in northeastern Syria.

14 See Pfälzner 2001: 168 for a similar interpretation of a basin as a receptacle (Tell Melebiye).

Locus 1 at Tell Djassa el-Gharbi also featured a large storage jar set in the ground adjacent to the installation in its third phase of use [see *Figs 7–9, 15*]. It could have served as a mashing and fermentation vessel in the last stage of the domestic brewing process as reconstructed at Tell Bazi.

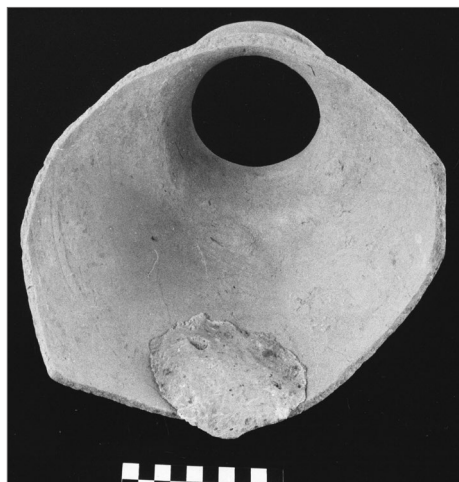


Fig. 14. Plaster plug in one of the globular vessels from the deposit [see *Fig. 13:B*] (PCMA UW | photo P. Ciepielewski)

Another component of the Locus 1 pottery deposit indicating beer production and/or consumption are two double-mouthed pots found in the basin [*Fig. 16*].<sup>15</sup> A suggestion that this type of jar might have been used for beer drinking has been proposed on the basis of a seal impression from Tell Brak with a banquet scene possibly depicting such a vessel (Oates 2001: 181, *Fig. 212*). A seal from Khafajeh, dated to the Early Dynastic period, features

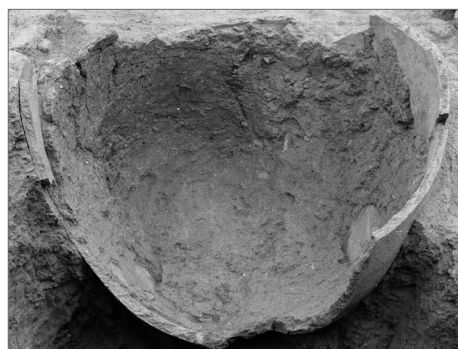


Fig. 15. Remains of a big storage jar adjacent to the last (third) phase of the Locus 1 basin installation (PCMA UW | photo P. Ciepielewski)

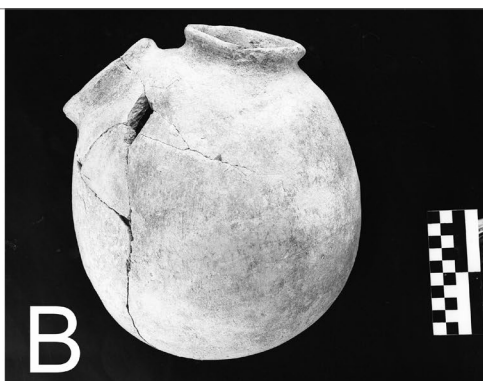
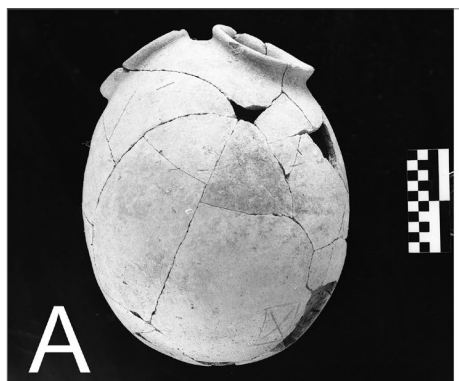


Fig. 16. Two double-mouthed jars found in the Locus 1 pottery deposit (PCMA UW | photo P. Ciepielewski)

<sup>15</sup> Drawings of these vessels and a photo of one of them were already published by Lawecka (2006: *Fig. 30*) and Reiche (2011: *Fig. 39*).

a similar scene in which the seated figures also drink with straws from what might have been a double-mouthed pot (object Registration No. A11464, Institute for the Study of Ancient Cultures, University of Chicago; <https://isac-idb.uchicago.edu/id/61722c88-6efd-4b76-a98f-8bd9acf7b43a>). Vessels of the kind were found at Khafajeh during the Oriental Institute expedition in the Diyala region (e.g. Delougaz 1952: Pl. 98:q).<sup>16</sup> Unfortunately, no residue analysis was done on any of the vessels to confirm these speculations.

As mentioned above, the basin from the border between Sectors A and B was also equipped with an inlet channel [see *Figs 4, 6*], and a massive saddle quern was found next to it [see *Figs 4, 5*]. Apart from grinding flour, this quern could have also been used for grinding the dried malt (see above) necessary for the next stage of the domestic brewing process: mashing and fermentation in big jars. Thus, this installation might have been used in beer brewing or management of some other liquid, as suggested also by the presence of a waterproof bitumen floor adjacent to the basin [see *Fig. 4*]. However, it differs significantly in shape and depth from the installation in Locus 1.

Another possible function of the Locus 1 installation, suggested by the two vessels with holes in their midsections [see *Figs 13, 14*], could be the production of seed oil — a diverse commodity group of tremendous im-

portance and versatility in the ancient Near East.<sup>17</sup> These jars could have been used at the stage of separating oil from water, similarly to vessels with holes in their bodies found at Tell Mique, Israel, and dated to the 7th century BC (Gitin 1989: 32, 39). Although the installations and vessels from this site are much later and were used for olive oil production, the same principles of separating oil from water apply in the production of seed oils. After the separation of liquids, the unplugged holes could be used for draining the oil from the jar's upper section (Gitin 1989: 32, 39; Eitam 1996: 174; Curtis 2001: 232). At Tell Djassa el-Gharbi, in order to avoid any undesirable spillage, the waste water from the separation process could flow into the basin in Locus 1, perhaps via the inlet channel. Unfortunately, these vessels were also not subjected to residue analysis.

In terms of the location of the modification, the closest analogy to the globular jars with holes in their midsections from Tell Djassa el-Gharbi is a jar with a small hole in the upper section of its body found in the Late Bronze Age Tell Sabi Abyad (Duistermaat 2007: Fig. IV.76.a). The same site also yielded another vessel with a hole that had been plugged with plaster in a similar fashion to the aforementioned specimen recovered from the deposit at Tell Djassa el-Gharbi, as well as a jar with a spout modified by a plaster plug (Duistermaat 2007: Fig. IV.82.c).

<sup>16</sup> For analogies dating to the EJZ III period from northeastern Syria, see Smogorzewska 2019: 136.

<sup>17</sup> See Charles 1985: 53–54 for a comprehensive, but probably not exhaustive, list of seed oil uses.

## CONCLUSIONS

A wide variety of white-plastered basins was uncovered at Tell Djassa el-Gharbi, and similar installations have also been documented on a number of other contemporary northeastern Syrian sites. They can be divided into several categories based on their size, association with other installations/features, and possible functions.

Some of them could have been used for dough kneading/mixing (e.g. Locus 31, Sector N installation), others for collecting ground flour or managing liquids (e.g. Sector A/B installation). Sometimes their functions are harder to establish — the basins could have had multiple purposes, as was probably the case with the installation on the border between Sectors A and B. Presumably, most basins

served a variety of purposes in everyday household activities that are not easily traceable in the archaeological record.

The installation from Locus 1 in Sector K stands out from other white-plastered basins in northeastern Syria. Its morphology and the characteristics of the pottery deposit found inside it suggest distinctive and specialized functions. It could have been used for small-scale brewing (cold mashing process) or seed oil production, but unfortunately these hypotheses cannot be confirmed, as no residue analyses have been conducted on any of the finds. This installation was in all probability multipurpose, like most white-plastered basins at Tell Djassa el-Gharbi and other sites in the region.

### Gaweł Rzeźnik

<https://orcid.org/0009-0005-4598-0342>

PCMA Associate

[gawelrzeznik@gmail.com](mailto:gawelrzeznik@gmail.com)

### How to cite this article: Rzeźnik, G. (2023).

White-plastered basins from Tell Djassa el-Gharbi in northeastern Syria and their possible functions. *Polish Archaeology in the Mediterranean*, 32/2, 79–98. <https://doi.org/10.37343/uw.2083-537X.pam32.2.03>

## References

- Badler, V.R. (2003). The archaeological evidence for winemaking, distribution and consumption at proto-historic Godin Tepe, Iran. In P.E. McGovern, S.J. Fleming, and S.H. Katz (eds), *The origins and ancient history of wine: Food and nutrition in history and anthropology* (pp. 45–56). Abingdon: Taylor and Francis
- Belgiorno, M.R. (2020). Ancient distillation and experimental archaeology about the prehistoric apparatuses of Tepe Gawra. *EXARC Journal*, 2020/2. Retrieved from <https://exarc.net/issue-2020-2/ea/ancient-distillation-and-experimental-archaeology> (accessed: 25.10.2023)

- Bieliński, P. (1990). Polish excavations in northeast Syria 1988–1989. *Polish Archaeology in the Mediterranean*, 1, 17–25
- Bieliński, P. (1991). The third season of excavations in northeast Syria, 1990. *Polish Archaeology in the Mediterranean*, 2, 94–101
- Bieliński, P. (2005). Arcaded houses from Tell Djassa El Gharbi and Tell Rad Shaqrah. In P. Bieliński and F.M. Stepniowski (eds), *Aux pays d'Allat: mélanges offerts à Michał Gawlikowski* (pp. 31–42). Warsaw: Instytut Archeologii, Uniwersytet Warszawski
- Calderbank, D. (2021). What's in a vessel's name? A relational text-object approach to the uses of Mesopotamian pottery. *American Journal of Archaeology*, 125(1), 29–64
- Charles, M.P. (1985). An introduction to the legumes and oil plants of Mesopotamia. *Bulletin on Sumerian Agriculture*, 2, 39–61
- Curtis, R.I. (2001). *Ancient food technology*. Leiden: Brill
- Delougaz, P. (1952). *Pottery from the Diyala region* (=Oriental Institute Publications 63). Chicago: University of Chicago Press
- Dornemann, R.H. (1981). The Late Bronze Age pottery tradition at Tell Hadidi, Syria. *Bulletin of the American Schools of Oriental Research*, 241, 29–47
- Duistermaat, K. (2007). *The pots and potters of Assyria: Technology and organization of production, ceramics sequence and vessel function at Late Bronze Age Tell Sabi Abyad, Syria* (Ph.D. diss.). Leiden University
- Eitam, D. (1996). The olive oil industry at Tel Mique-Ekron in the Late Iron Age. In D. Eitam and M. Heltzer (eds), *Olive oil in antiquity: Israel and neighbouring countries from the Neolithic to the early Arab period* (=History of the Ancient Near East / Studies 7) (pp. 167–196). Padua: Sargon
- Emberling, G., Cheng, J., Larsen, T.E., Pittman, H., Skuldboel, T.B.B., Weber, J., and Wright, H.T. (1999). Excavations at Tell Brak 1998: Preliminary report. *Iraq*, 61, 1–41
- Fortin, M. (1990). Rapport préliminaire sur la 3<sup>e</sup> campagne de fouilles à Tell 'Atij et la 2<sup>e</sup> à Tell Gudeda, sur le Khabour (automne 1988). *Syria*, 67(3), 535–577
- Gates, M.-H. (1988). Dialogues between ancient Near Eastern texts and the archaeological record: Test cases from Bronze Age Syria. *Bulletin of the American Schools of Oriental Research*, 270, 63–91
- Gitin, S. (1989). Tel Mique-Ekron: A type-site for the Inner Coastal Plain in the Iron Age II period. In S. Gitin and W.G. Dever (eds), *Recent excavations in Israel: Studies in Iron Age archaeology* (=Annual of the American Schools of Oriental Research 49) (pp. 23–58). Winona Lake, IN: Eisenbrauns
- Koliński, R. (1996). Building a house in third millennium Northern Mesopotamia: When vision collides with reality. In K.R. Veenhof (ed.), *Houses and households in ancient Mesopotamia: Papers read at the 40<sup>e</sup> Rencontre assyriologique internationale, Leiden, July 5–8, 1993* (=Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te İstanbul 78) (pp. 137–144). Istanbul: Nederlands Historisch-Archaeologisch Instituut te İstanbul
- Koliński, R. and Ławecka, D. (1992). Report of Polish excavations at Tell Abu Hafur, North Syria 1988–1989. *Area A. Damasener Mitteilungen*, 6, 177–246

- Ławecka, D. (2006). *Północna Mezopotamia w czasach Sumerów*. Warsaw: Agade
- Lebeau, M. (1996). Les maisons de Melebiya: approche fonctionnelle de l'habitat privé au III<sup>e</sup> millénaire av. notre ère en Haute Mésopotamie. In K.R. Veenhof (ed.), *Houses and households in ancient Mesopotamia: Papers read at the 40<sup>e</sup> Rencontre assyriologique internationale, Leiden, July 5–8, 1993* (=Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te İstanbul 78) (pp. 129–136). Istanbul: Nederlands Historisch-Archaeologisch Instituut te İstanbul
- Lebeau, M. and Suleiman, A. (eds). (2008). *Euro-Syrian excavations at Tell Beydar: Report on the 15th season of excavations and the 6th season of architectural restoration at Tell Beydar (2008)*. Retrieved from [http://www.beydar.org/wp-content/uploads/2016/07/Beydar\\_2008-en.pdf](http://www.beydar.org/wp-content/uploads/2016/07/Beydar_2008-en.pdf) (accessed: 25.10.2023)
- Levey, M. (1955a). Evidences of ancient distillation, sublimation and extraction in Mesopotamia. *Centaurus*, 4(1), 23–33
- Levey, M. (1955b). Some chemical apparatus of ancient Mesopotamia. *Journal of Chemical Education*, 32(4), 180–183
- Oates, J. (2001). The third-millennium pottery. In D. Oates, J. Oates, and H. McDonald (eds), *Excavations at Tell Brak II. Nagar in the third millennium BC* (pp. 151–193). London: British School of Archaeology in Iraq
- Paulette, T. (2020). Archaeological perspectives on beer in Mesopotamia: Brewing ingredients. In N. Borrelli and G. Scazzosi (eds), *After the harvest: Storage practices and food processing in Bronze Age Mesopotamia* (=Subartu 43) (pp. 65–89). Turnhout: Brepols
- Perruchini, E., Glatz, C., Hald, M.M., Casana, J., and Toney, J.L. (2018). Revealing invisible brews: A new approach to the chemical identification of ancient beer. *Journal of Archaeological Science*, 100, 176–190
- Pfälzner, P. (2001). *Haus und Haushalt: Wohnformen des dritten Jahrtausends vor Christus in Nordmesopotamien* (=Damascener Forschungen 9). Mainz am Rhein: Philipp von Zabern
- Pfälzner, P. (2011). Architecture. In M. Lebeau (ed.), *Associated regional chronologies for the ancient Near East and the Eastern Mediterranean I. Jezirah* (pp. 137–200). Turnhout: Brepols
- Reiche, A. (2006). Polish archaeological research in north-eastern Syria. *Bulletin du Musée National de Varsovie*, 42, 95–106
- Reiche, A. (2011). Die altorientalischen Denkmäler in den Museen in Polen: Geschichte und Bestand. In E.C. Cancik-Kirschbaum, M. van Ess, and J. Marzahn (eds), *Babylon: Wissenskultur in Orient und Okzident* (pp. 317–346). Berlin–Boston: De Gruyter
- Reichel, C. (2011). Hamoukar. In *The Oriental Institute 2010–2011 annual report* (pp. 51–59). Chicago: Oriental Institute of the University of Chicago
- Rova, E. (2014). Tannurs, tannur concentrations and centralised bread production at Tell Beydar and elsewhere: An overview. In L. Milano and F. Bertoldi (eds), *Paleonutrition and food practices in the Ancient Near East: Towards a multidisciplinary approach* (=History of the Ancient Near East / Monographs 12) (pp. 121–170). Padua: S.A.R.G.O.N.

- Smogorzewska, A. (2019). *Tell Arbid: House and household in a changing town* (=PAM Monograph Series 9). Warsaw: PCMA UW; Institute of Archaeology, University of Warsaw
- van Loon, M. (1979). 1974 and 1975 preliminary results of the excavations at Selenkahiye near Meskene, Syria. *Annual of the American Schools of Oriental Research*, 44, 97–112
- Zarnkow, M., Otto, A., and Einwag, B. (2011). Interdisciplinary investigations into the brewing technology of the ancient Near East and the potential of the cold mashing process. In W. Schiefenhövel and H.M. Macbeth (eds), *Liquid bread: Beer and brewing in cross-cultural perspective* (pp. 47–54). New York: Berghahn Books