JOURNAL OF GLASS STUDIES

Notes

AN UNGUENTARIUM WITH A POSSIBLE GLASS STOPPER FROM PALMYRA, SYRIA

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ABSTRACT

The aim of this note is to present a fragmentary unguentarium, brought to light during the 2010 excavation of the PAL.M.A.I.S. archaeological project in Palmyra, Syria. Only the upper part of the vessel is preserved and stands out because it likely has part of its stopper, made of glass, still stuck in its mouth. It is possible to formulate different hypotheses on how this stopper was used and produced. The specimen from Palmyra is a unicum for this region and chronological horizon (sixth to seventh century CE).

The ancient city of Palmyra (present-day Tadmor, Syrian Arab Republic) was located in an oasis in the Syrian desert halfway between the Mediterranean coast and the Euphrates. Its thriving and wealth were due to its geographical location and the caravan trade routes that crossed it. The city experienced a period of extraordinary development between the first and the third centuries CE, but remained prosperous and vibrant until the Early Islamic period.[1]

Palmyra has been the object of numerous archaeological investigations since the early 1900s. However, the Southwest Quarter of the city was not systematically explored until 2007, when a joint Syro-Italian team (PAL.M.A.I.S., *Missione Archeologica Italo-Siriana di Palmira*) stepped in to fill this lacuna. The PAL.M.A.I.S. project was established following an agreement between the University of Milan and the General Direction of Antiquities and Museums of Damascus (DGAM), and was directed by Maria Teresa Grassi (University of Milan) and Waleed al-Asʿad (Museum of Palmyra). The Southwest Quarter covers about 114,000 sq m (547 × 281 m) and is believed to be mainly residential in nature.[2] In 2007, a complete topographic and architectural survey of the quarter was carried out that led to documenting all the structural evidence visible on the ground. Between 2008 and 2010, the work of the team focussed on excavating the quarter's most imposing structure,

1 See Gawlikowski 2021 with further references.

2 The quarter is bounded by the agora, the city walls, the Transverse Street, and the Great Colonnade.

QUICK CITATION
Romagnolo, Miriam. "An Unguentarium with a Possible Glass Stopper from Palmyra, Syria." *Journal of Glass Studies* 66 (2024): 221–226

the so-called Peristyle Building; its name was chosen because of the columns that remained visible, emerging for about half their height from the sandy ground.[3] The excavation encompassed an area of about 560 sq m[4] and revealed different rooms arranged around a peristyle courtyard. The abundant material brought to light in these excavations suggests a long period of frequentation spanning from the Severan age up to the eighth century CE, with several alternating phases of abandonment and renovation.[5]

Among this material were 1,026 glass finds, of which 207 were diagnostic. All the finds are fragmentary and they are in a poor state of preservation overall.[6] The majority of the recognized forms can be dated between the Byzantine and the Early Islamic (Umayyad) periods, from the sixth to the eighth century CE.[7]

Among these fragments were several pertaining to toilet bottles characterized by a small rounded, rolled-in rim and a small cylindrical neck; the lower part, which was likely pear-shaped, is missing. One specimen[8] stands out because its mouth is completely obstructed by a fragmentary stopper, made of glass, which now adheres to the walls (**Fig. 1**). This piece, if turned upside down, could be taken for the internal part of a lamp base with wick holder.[9] However, the fragment finds exact comparanda with other toilet bottles from the PAL.M.A.I.S. excavation.[10]

The complete original form of the stopper cannot be reconstructed with certainty because the plug is broken in its upper part, making it impossible to know how much it protruded above the rim. Its lower part is complete, short, and slightly rounded. It was probably produced independently from the vessel, not by casting a mass of glass but possibly by spirally winding a hot glass trail (**Fig. 2**).

The vessel has endured significant surface alteration and it now looks opaque white and iridescent, being almost completely covered by a flaking whitish coating.[11] In some small places, where the coating has come off, it is possible to distinguish the original color of the glass, which seems to be in the blue-green hues of the so-called naturally colored glass (**Figs. 1–3**).

The fragment comes from one of the main walls of the Peristyle Building (US 105, **Fig. 4**) and was unearthed during the excavation of 2010 in exploring the upper

3 UR 89=EA 25, a square-shaped peristyle (side length: about 12 m) with six columns per side, of which 12 are still visible in situ on three sides.

4 The building was not excavated in its entirety. Fieldwork stopped in 2011, due to the war in Syria.

5 The results of the project are currently being published. About the project, see also https://www.progettopalmira.unimi.it.

6 Most of the glass finds were iridescent and covered with a thick whitish, black, or rust-brown coating which made it impossible to determine the original color. However, the predominant colors on well-preserved sherds were blue-greenish shades.

7 The glass assemblage consisted mainly of bottles, flasks, jugs and juglets, bowls, beakers, and goblets. There were also, in smaller quantities, lighting devices, toilet bottles, windowpanes, and ornaments. The glasses are currently being published.

8 Inv. no. 1050003/cat. no. G075. Diam. (rim) 1.8 cm; small cylindrical neck: preserved H. 2 cm, Diam. 1.1 cm.

9 Jennings 2006, 216–217.

10 The closest comparanda from the PAL.M.A.I.S. excavation are inv. nos. 4390029 and 1440210203005, whose form matches perfectly that of the specimen here considered.

11 The weathering was probably caused by the conditions and type of soil and by the quality or chemical composition of the artifact. The study of the glass assemblage started with a long-term perspective and the intention of deepening the study of the fragments. However, due to the critical situation in Syria, no archaeometric analysis nor further research could be carried out.

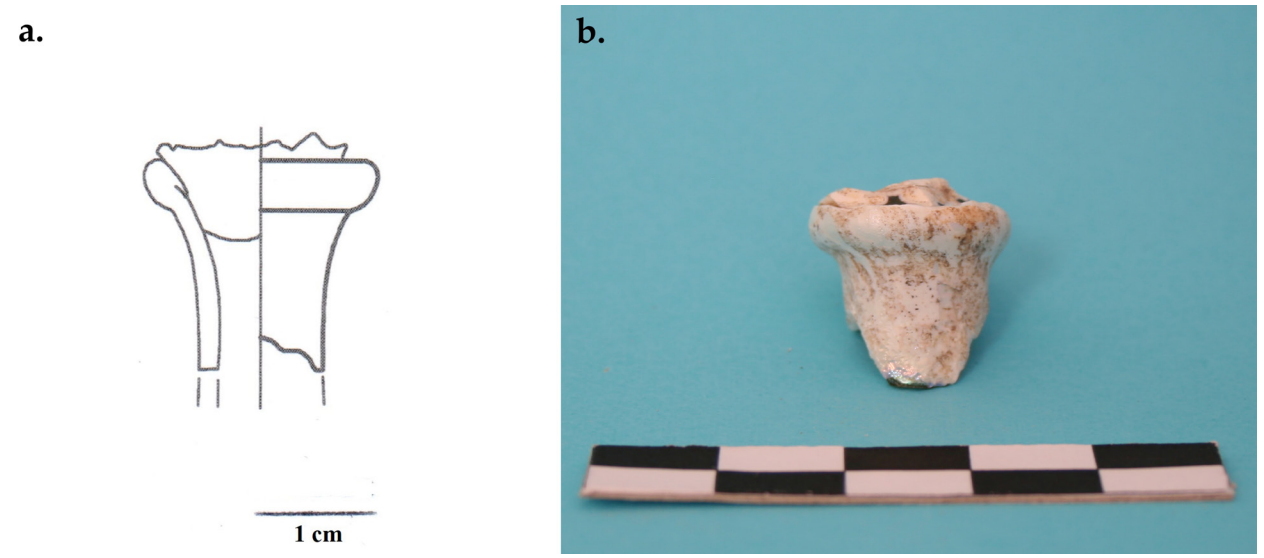

FIG 1. (a) Drawing of the unguentarium with its stopper. (Drawing: Miriam Romagnolo, © PAL.M.A.I.S. Archive/University of Milan); (b) Frontal view of the fragment of unguentarium. (Photo: © PAL.M.A.I.S. Archive/University of Milan)

FIG 2. The fragment of the unguentarium seen from above, with the upper part of the stopper in evidence. (Photo: © PAL.M.A.I.S. Archive/University of Milan)

FIG 3. The fragment of the unguentarium seen from below, where its original color is recognizable. (Photo: © PAL.M.A.I.S. Archive/ University of Milan)

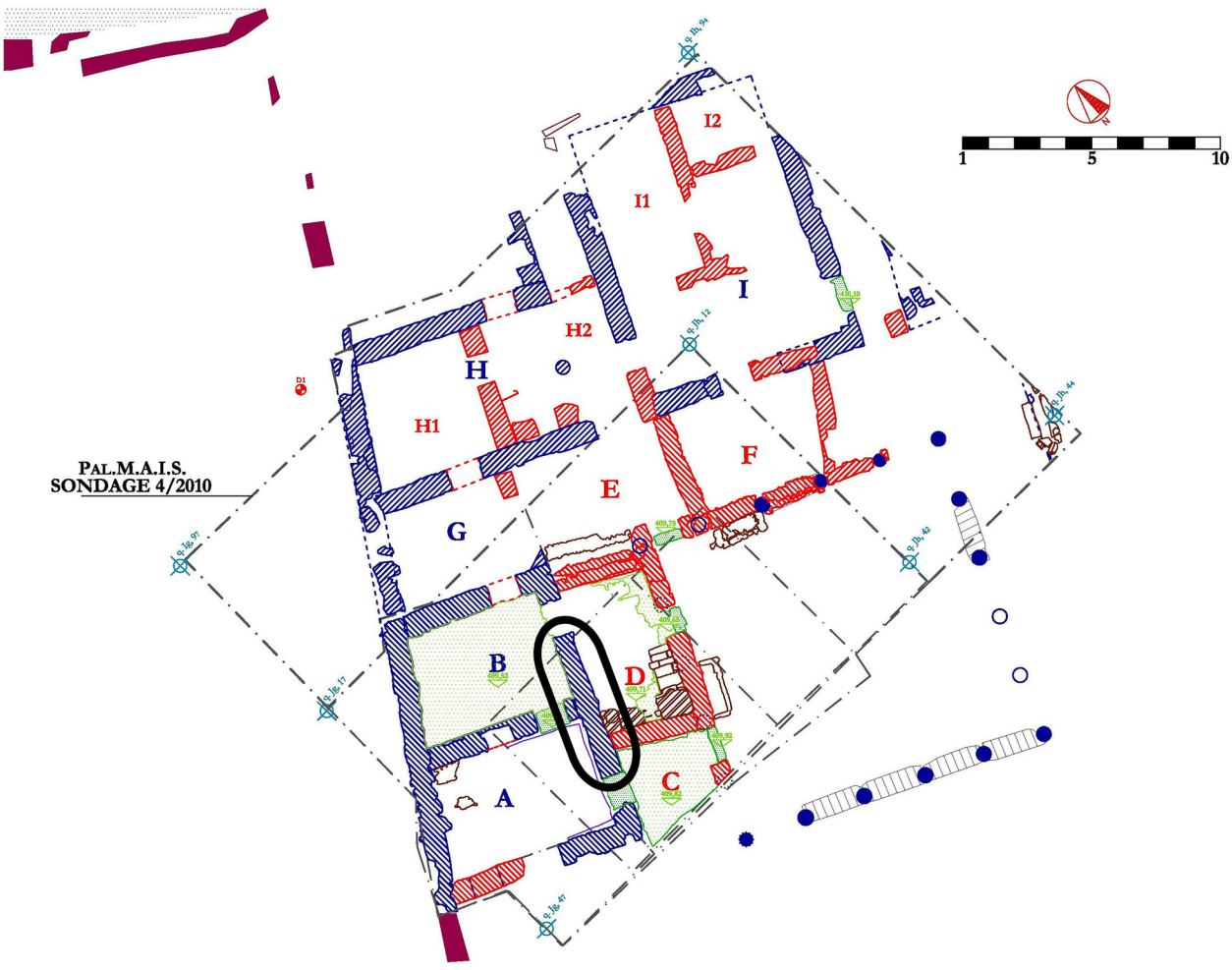

FIG 4. Plan of the Peristyle Building with the wall US 105 pointed out. (Graphic: © PAL.M.A.I.S. Archive/University of Milan)

part of the feature, along with a few other finds.[12] It is the only significant vitreous fragment coming from this context; for its morphological characteristics and the coin found in association with it—a Byzantine follis—it can be dated to the sixth to seventh century CE.[13]

In the vast majority of cases, unguentaria were closed using organic perishable materials, which have been preserved only in a few exceptional circumstances.[14] The

12 The wall was oriented NE/SW and divided four rooms (A, B, C, D). The materials were discovered cleaning the filling of the upper part of the wall. This section of the wall is dated to a later phase than the lower part.

13 On wall US 105 were also found: 18 wall glass fragments, one shell, 15 animal bones, 11 bronze fragments, one Byzantine coin (follis, inv. no. 1050001, cat. no. 13, sixth–seventh century CE. I am grateful to Antonino Crisà, the team numismatist, for providing information about the chronology of the follis).

14 Organic materials, e.g., wax, fabrics, vegetal fibres, or leather. See, as an example, the small bottle found in the Fayyum oasis (Egypt), "furnished with a grass stopper" (Edgar 1905, 55, no. 32661) and Taborelli 2004, 53. The same types of sealing were also in use previously with pottery toilet bottles; see Taborelli 2018. Rare non-organic seals are also known: as an example, a Roman unguentarium with a clay stopper in the neck now in the British Museum, London, 1908,0724.13/DBH.1909.

use of organic material is also confirmed by a mosaic representing an *asarōtos oikos* (ἀσάρωτος οἶκος, unswept house/room) and signed by Heraklitos.[15] This remarkable iconographic source shows a toilet bottle with the rim still closed by, arguably, a piece of fabric membrane, tied by a little string (*funiculus*), to which is attached a label (*pittacium*).[16] Pliny the Elder (*Nat. Hist*. 13.19) also mentions as a sealing the so-called *magma*, the thickest and densest sediment of the unguents (*faecem unguenti*), placed probably in the upper part of the neck of the vessels.[17]

The Palmyrene specimen examined here is a discovery of exceptional importance because it is an extremely rare example of an unguentarium closed with a glass stopper—a unicum for this region and chronological horizon.[18]

It is possible to formulate different hypotheses on how this stopper was used and produced. It could have been created specifically for the purpose of sealing off this container; in this case, the closing would have occurred simultaneously with the filling of the vessel, with the hot glass of the plug adhering to the walls—already cooled. However, this operation would have entailed a whole series of difficulties, given that the thermal shock could have easily broken the small bottle.[19]

Alternatively, it could just be a defective piece, given its singularity and fragmentary nature.[20]

The third—and most likely—hypothesis is that the plug is now stuck in place, adhering to the rim and to the wall under the rim as an effect of the very thick incrustation caused by the severe post-depositional weathering processes. If this is the case, originally it could have been easily removed, put on, and taken off at will, to keep the vessel temporarily closed in order to prevent unwanted releases, excessive evaporation, or simply to slow the deterioration of the content.

ACKNOWLEDGMENTS

This note is dedicated to the memory of late Prof. Maria Teresa Grassi (University of Milan), who entrusted me with the study of the glass materials of the PALMAIS. archaeological project in Palmyra (Syria); I thank Prof. Emanuele Intagliata (University of Milan) for the support and the opportunity to continue the study undertaken. I am also deeply grateful and indebted to Sylvia Fünfschilling (Universität Basel), E. Marianne Stern and Maria Grazia Diani (Lombardy Region, Honorary President of the Italian National Committee of AIHV) for their priceless suggestions, precious advice, and kind support.

15 Now in the Gregoriano Profano Museum, Vatican City; age of Hadrian.

16 For an in-depth analysis of the toilet bottle represented in the Heraklitos mosaic, see Taborelli 1992, 311, 326–327.

17 It was probably mixed with some wax, in the upper part of the neck, and likely sealed on the outside by a little textile cover; Taborelli 1992, 311–312; Taborelli 2018, 178–179.

18 To date, no other similar stoppers for toilet bottles are known; the only specimens of glass stoppers known to me are from earlier periods (e.g., from a rod-formed khol-tube, sixth–fourth century BCE, British Museum, London, 1869,0624.85/DBH.0264; or from a cosmetic flask, third–fourth century CE, Corning Museum of Glass, Corning, New York, 74.1.30).

19 In this case, it would have been necessary to break the container's neck in order to use the content. This practice was more appropriate for containers intended for storage, during transport and trade, and it was also well known previously, during the early Roman period, for some toilet bottles: cfr. the type Isings Form 11 (in the shape of a small dove) or the spheres type Isings Form 10 (Isings 1957, 25–27).

20 In this case, we would be dealing with a production mistake; unfortunately, the context does not help disentangle the issue.

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