

Title: **Marble vessels from Jiyeh (Porphyreon)**

Author(s): Mariusz Gwiazda

Journal: *Polish Archaeology in the Mediterranean* 23/1 (Research 2011)

Year: 2014

Pages: 527–542

ISSN 1234–5415 (Print), ISSN 2083–537X (Online)

Publishers: Polish Centre of Mediterranean Archaeology, University of Warsaw (PCMA UW),
Wydawnictwa Uniwersytetu Warszawskiego (WUW)

www.pcma.uw.edu.pl – www.wuw.pl

MARBLE VESSELS FROM JIYEH (PORPHYREON)

Mariusz Gwiazda

Center for Research on the Antiquity of Southeastern Europe, University of Warsaw

Abstract: Imported marble vessels from Jiyeh (Porphyreon), a site on the Phoenician coast, could not be easily identified in terms of function and dating for lack of sound stratigraphic evidence. An examination of parallels from other sites in the Eastern Mediterranean was needed in order to determine the chronology and uses of these objects. Virtually all of the Jiyeh vessels were thus dated to the early Byzantine period. Forms included utilitarian mortars and plates, as well as tentative liturgical tabletops. The repertoire represents standard exports of vessels of these shapes to Syro-Palestine from Greece and Asia Minor. Their distribution in Syro-Palestine was conditioned by geographical factors, as well as the affluence of settlements that imported such objects.

Keywords: marble vessels, mortars, marble trade, Early Byzantine, Jiyeh (Porphyreon), Phoenicia, Syro-Palestine

MARBLE VESSELS FROM JIYEH (PORPHYREON)

Mariusz Gwiazda

Center for Research on the Antiquity of Southeastern Europe, University of Warsaw

Abstract: Imported marble vessels from Jiyeh (Porphyreon), a site on the Phoenician coast, could not be easily identified in terms of function and dating for lack of sound stratigraphic evidence. An examination of parallels from other sites in the Eastern Mediterranean was needed in order to determine the chronology and uses of these objects. Virtually all of the Jiyeh vessels were thus dated to the early Byzantine period. Forms included utilitarian mortars and plates, as well as tentative liturgical tabletops. The repertoire represents standard exports of vessels of these shapes to Syro-Palestine from Greece and Asia Minor. Their distribution in Syro-Palestine was conditioned by geographical factors, as well as the affluence of settlements that imported such objects.

Keywords: marble vessels, mortars, marble trade, Early Byzantine, Jiyeh (Porphyreon), Phoenicia, Syro-Palestine

Vessels made of stone complement the evidence of everyday life of ancient communities in the Mediterranean region. When the stone they were made of was not extracted locally, vessels of this kind may also contribute to reconstructing social history in different parts of the region (see Sparks 2007; Bevan 2007). Particular types of stone vessels may be an indicator of specific ethnic and religious groups, as in the case of chalk vessels produced in Palestine from the second half of the 1st century BC to the 2nd century AD, which were used by the Jewish community because of their ritual purity (Magen 2002).

Vessels made of marble, which does not occur in Syro-Palestine as a material, are an additional source for understanding

economy and trade dynamics in the region. Polish–Lebanese excavations at the site of Jiyeh (Porphyreon) yielded 48 fragments of marble vessels, including mortars, plates and tabletops. Determining the function and date of these objects poses considerable difficulties as all of them come from modern fill formed in the ruins of an early Byzantine basilica and dwelling quarter (on the excavations, see Waliszewski, Wicenciak *et alii* 2006: 21–34; Waliszewski, Juchniewicz, Gwiazda 2012: 425–431; Waliszewski, Gwiazda 2013). In view of this, identification has to be based on parallels published from other archaeological sites. The material from Jiyeh has been classified into five types including mortars, plates and tabletops.

In some cases, the marble, too, is distinctive, originating from different quarries, but without further petrographic analyses determining the source of the stone is impossible. On the other hand, an analysis of the findspots of the discussed material opens the field for remarks on distribution patterns for these particular forms of marble vessels in early Byzantine Syro-Palestine.

MORTARS

Eight fragmentary marble mortars have been discovered at Jiyeh to date. They have thick body walls (about 2 cm) and a height ranging between 10 and 20 cm. The bottoms are flat without distinguished base. The handles (where preserved) were of the lug type, occasionally decorated with simple linear motifs [Fig. 1, center]. Two fragments were spouted [Fig. 1, top]. The material used is a white, medium-coarse marble, occasionally grey-veined. The inside is well finished, smooth and polished; the outside surface on the other hand is roughly dressed. One piece was discovered during underwater investigations carried out to the west of the Christian basilica, the remaining fragments from modern layers containing mixed material, superimposed on the dwelling district east of the basilica. A small number of mortars made of basalt and limestone were also found on the site.

Parallel forms have been recorded at many sites in Syro-Palestine and Cyprus. Published examples come from **Phoenicia**: Byblos (Dunand 1939: 39, Cat. No. 1197, Fig. 22; Dunand 1950–1958: 1048, Fig. 1157), Berytus (Waliszewski 1997: 67–68), Bat Galim (Oren-Paskal 2008: 48*, Fig. 10), Shiqmona (Amir 2006: 158, Fig. 8.1), Castra (Zemer 1999: 33), **Palestine**: Caesarea Maritima (Waliszewski 1997:

67–68; Patrich, Shadmi 2008: 351–354), Scythopolis (Agady, Arazi *et alii* 2002: 504–505, Fig. 26.6–8, Pl. 10.3–4, 11.1), Samaria-Sebaste (Crowfoot, Crowfoot, Kenyon 1957: 466–467, Fig. 118.7), Fardisyā (Zissu, Moyal, Ganor 2009: 137, Fig. 6), Horvat Hermeshit (Greenhut 1998: 135, Fig. 27.2), Ramla (Tal, Taxel 2008: Fig. 6.127, 128), Yavneh (Fischer, Taxel 2007: 233, Fig. 16.2), Ashdod (Dothan 1971: Fig. 28, 96), Jerusalem (Crowfoot, Fitzgerald 1929: Pl. 18.21; Prag 2008: 54, Fig. 42.3), Khirbet el-Suyyagh (Taxel 2009: 166, 171, Fig. 6.4:1), Khirbet Sijar El Ghanam (Corbo 1955: 87, Photo 80.3), Jemameh (Gophna, Feig 1993: 106, Fig. 16b), Oboda (Negev 1997: 177, Photo 283); **Syria**: Umm el-Tlel (Majcherek, Taha 2004: 233, 239, Fig. 4), **Cyprus**: Paphos (Giudice, Giudice, Giudice 2000: 285, Fig. 13.7, 10), Salamis (Chavane 1975: 13–14, Pl. 57). This type of mortar has also been recorded in **other parts of the Mediterranean**: Constantinople (Gill 1986: 234, Fig. F), Chios (Ballance, Boardman *et alii* 1989: 124, Fig. 49.7), Thasos (Sodini, Koklokotsas 1984: 206–207, Fig. 170, Pl. 76.a–h), Kütahya (Niewöhner 2006: 452, Fig. 44), Sardis (Crawford 1990: 64–65, 73, Figs 298–299, 333), Corinth (Davidson 1952: 122–123, 125, Cat Nos 827–829, Pl. 60–61), Yassi-Ada (Bass, van Doorninck 1982: 290–291, MF 54), Olympos (Öztaşkin, Öztaşkin 2012: 284, Fig. 11).

The functional context of these marble mortars can be very different. In Palestine they are relatively frequent in early Byzantine monasteries and buildings that did not have a sacral function. They have occurred also in workshops, as in the case of Scythopolis and Sardis. In Thasos they were found, among others, in church

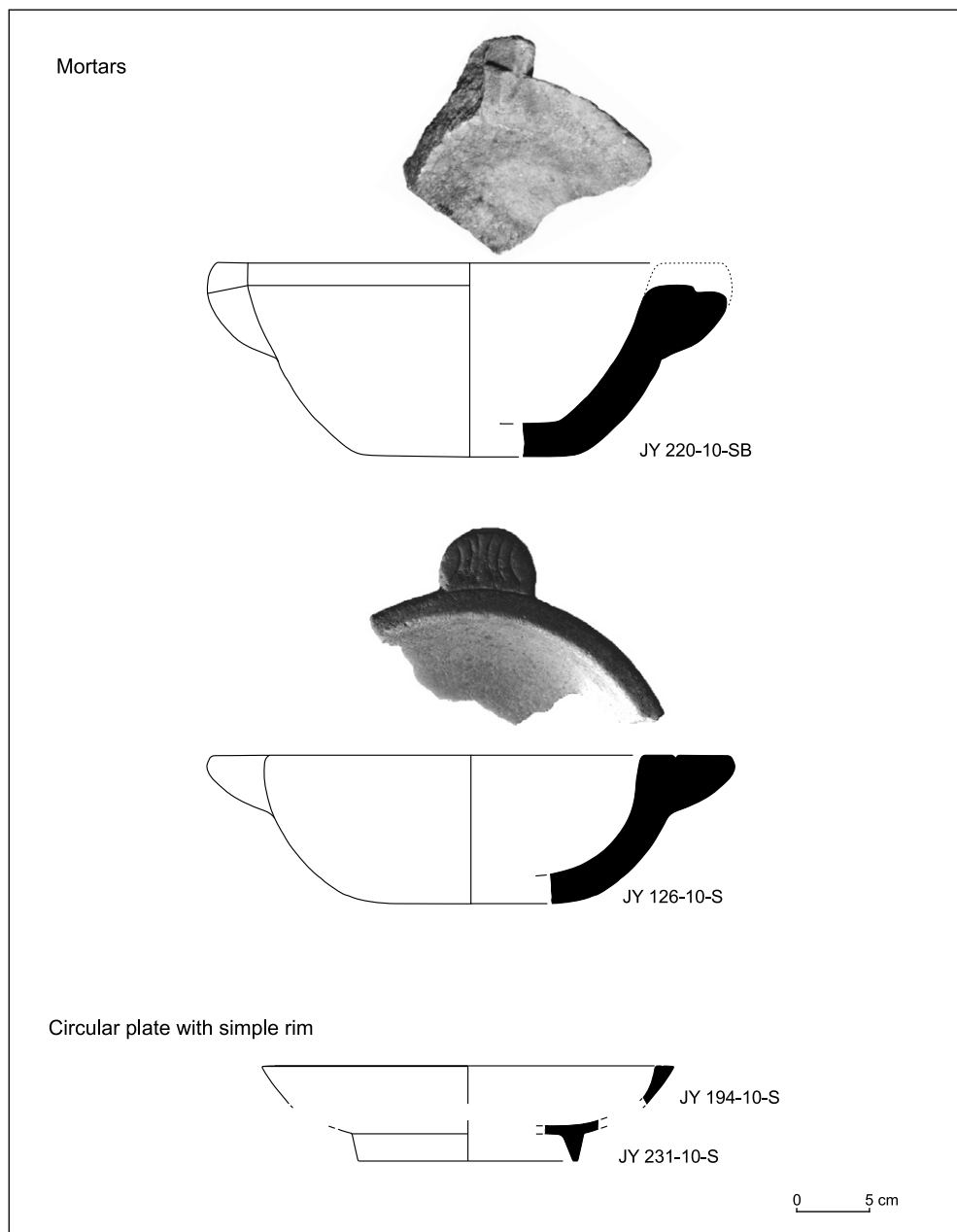


Fig. 1. Selected fragments of marble mortars, with spout (top) and with lug handle (center) and reconstructed circular plate with simple rim (Photos M. Gwiazda; drawing M. Makowska, M. Gwiazda)

baptisteries and narthexes (Sodini, Koklokotsas 1984: 207). At Fardisya in Palestine a mortar was found in a tomb. Regarding the chronology of the recorded objects, marble mortars have been found in contexts from the Hellenistic through the early Islamic period. The Hellenistic and Roman examples, however, differ in form and finishing from those known from Jiyeh and other early Byzantine sites in Syro-Palestine. They often have lugs bearing ornamental floral motifs and spouts that are more plastic in shape, although there also exist examples with plain simple lugs of trapezoid shape (see Deonna 1938: Figs 319–326). The Jiyeh mortars and their parallels from Syro-Palestine are characterized by rounded lugs, often decorated with simple engraved lines. The early Byzantine marble mortars usually also do not have a distinguished base. The best dated parallels for mortars of the type recorded at Jiyeh come from early Byzantine contexts in Corinth, Caesarea Maritima, Sardis and Yassi Ada (4th–first half of 7th century AD). At a few Palestinian sites marble mortars of this kind have been found in early Islamic contexts as well, although in these cases the objects should be considered as residual. A mortar from Avdat has been dated to the 3rd century AD and interpreted as a libation vessel by Avraham Negev, but the semicircular decorated lugs and the Greek inscription (illegible) on the rim put into doubt this dating, whereas recorded parallels suggest an early Byzantine attribution. Mortars discovered on the surface at Umm el-Tlel can be assigned to the Roman period based on the distinctly worked bases and different form from that of early Byzantine examples. Settlement from the early Roman period evidenced at

Umm el-Tlel would stand in favor of such a dating for the mortar fragments.

The parallels presented above indicate that the marble mortars from Jiyeh should be dated to the early Byzantine period (the possibility of an early Islamic date can be disregarded owing to the fact that no early Islamic occupation whatsoever has been evidenced on the site). The results of chemical analyses of the contents of different mortars from other sites, combined with the contexts in which they were found, demonstrate the primarily utilitarian nature of these vessels. They were used for cooking purposes to grind and mix food products and to produce ointment and unguents. Pigments could have also been prepared in these vessels (Korkut 2002: 236–241, notes 28–29, 35; see Tal, Taxel 2008: 190).

The place of production of the early Byzantine marble mortars has yet to be placed more precisely. Unfinished examples of local marble have been noted in Thasos (Sodini, Koklokotsas 1984: 207). Proconnesus is also a distinct possibility, judging by the more than a hundred mortars made of marble from the quarries on this island discovered during excavations in Istanbul in layers dating from the close of the early Byzantine period and later (Gill 1986: 234). Marble mortars were also produced locally in Syro-Palestine. Unfinished mortars found in Caesarea Maritima testify to the existence of production of this type, most probably from blocks of reused marble.

Nonetheless, the characteristic decoration on the lug handles, comprising a relatively limited repertoire of straight and oblique engraved lines, could point to the operation of a single major production center responsible for the import of

a substantial part of the marble mortars found in the Eastern Mediterranean. Repetitive decoration on the lug handles of mortars from different sites includes the following: a Latin cross flanked by two oblique lines, recorded at Alexandria (unpublished), Shiqmona, Corinth, and Caesarea Maritima; a lattice pattern on vessels from Chios, Constantinople and Kütahya; and six arching lines, attested on mortars from Alexandria (unpublished), Jiyeh [see *Fig. 1*, center] and Constantinople.

CIRCULAR PLATE WITH SIMPLE RIM

A second vessel type resembles ceramic plates on bases with triangular ring section. Excavations at Jiyeh produced two fragments, a base and a rim, possibly from the same vessel [*Fig. 1*, bottom]. The marble in both cases was white and fine-grained (erroneously identified as alabaster in many instances). The body walls were relatively thin, from 0.55 cm to approximately 1 cm in thickness, polished on both sides, inside and out. The two fragments come from layers formed in modern times, containing mixed material.

Vessels of this type are known from sites in Palestine: Caesarea Maritima (Patrìch, Shadmi 2008: 351, Cat. Nos 68, 69, 71, 72), Jerusalem (Bagatti 1969: 204, 206, Fig. 7.4–6; Wightman 1989: 19, 98, Pl. 73.5; Geva 2006: 221, Pl. 9.18; Mazar 2007: 3, 8, 22, Fig. 1.71; Prag 2008: 239, Fig. 156.11), Khirbet el-Suyyagh (Taxel 2009: 171, Fig. 6.4.2), Horvat Karkur 'Illit (Figueras 2004: Fig. 16.6, *non vidi*); the Transjordan region: Mount Nebo (Acconci 1998: 495, Cat. Nos 69, 71), Petra (Stucky 1996: 338,

341, Figs 956–957); but also from Paphos (Giudice, Giudice, Giudice 2000: 287, Fig. 13.6), Salamis (Chavane 1975: 18, Pl. 5,58), Constantinople (Gill 1986: 233, Fig. E).¹ Most vessels of this type are dated to the early Byzantine period (6th–7th century AD). The dating of find contexts is occasionally moved down to the early Islamic period, but the finds are in these cases objects produced in earlier times and residual in the layers in which they were found. Two, one from Jerusalem and the other from Petra, are of much earlier date. In Jerusalem vessels of this type were said to come from layers of the Second Temple Period, but the publication covers material from old excavations not published by the director and it is possible that the object was attributed to an early period owing to an error in the documentation (Geva 2006). With regard to the object from Petra, R.S. Stucky interpreted vessels of the said type as Nabatean, but the piece itself was found in a late Roman context. In the light of evidence from other sites, it should be considered as late Roman in date as well (Stucky 1996).

Vessels of this type were found in churches as well as in non-church contexts, meaning that their purpose was not of a solitary and specific kind. The parallels cited above indicate that the two fragments from Jiyeh were early Byzantine and could be associated with the Christian basilica as much as with the next-door dwelling district.

CIRCULAR PLATES WITH RIM *À BEC DE CORBIN*

The type is characterized by a narrow inturned rim and flat base [*Fig. 2*, top].

¹ Berenike in Egypt has also yielded a piece from a 5th–6th century AD rubbish dump in the city (unpublished).

Vessels of this kind are the most numerous group from the excavations in Jiyeh: 21 fragments of rims and most probably 19 fragments of bases. The thickness of the bottom fragments ranges from 0.6 cm at the thinnest to 1.8 cm. The diameter is between about 61 cm and 100 cm. An examination of sherd profiles suggested at least seven vessels of the kind. Similar forms from other sites occasionally had a circular fillet on the base, but no such evidence was noted on the examples from Jiyeh. The inside surface of the vessels, as well as the outer surface of the rim and body walls was always well finished and polished. The base was always also precisely

carved but not polished. Only fine-grained white marble was used for these vessels. A fragment from test pit D 20 in the dwelling quarters was associated with fine ware vessels dated to between the late 4th and the beginning of the 6th century AD.

Parallels have been published from **Syria**: Raphanea (Gschwind, Hasan 2011: 224, Fig. 6); **Palestine**: Jerusalem (Bagatti 1969: 203, Fig. 7.1-2); **Transjordan**: Mount Nebo (Acconci 1998: 497, Cat. Nos 75-78), Petra (Kanellopoulos, Schick 2001: 210, Fig. 46; Lehtinen 2008: 214, 231, Fig. 11.3b and Fig. 7 in the Appendix); **Cyprus**: Salamis (Roux 1973: 179, Fig. 91), Kurion (Loverance 1990:

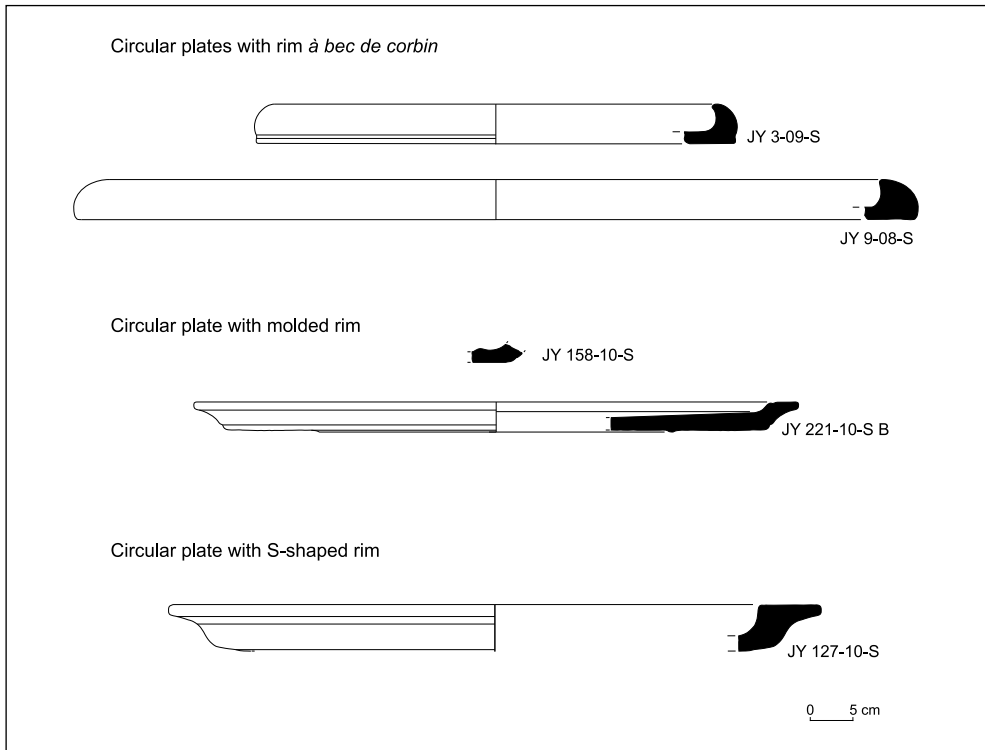


Fig. 2. Selected fragments of marble circular plates: with rim à bec de corbin (top), with molded rim (center) and with S-shaped rim (bottom) (Drawing M. Makowska, M. Gwiazda)

225–243). The form has been recorded in **other parts of the Mediterranean**: Salona (Duval, Marin [eds] 1994: 173–184), Chios (Ballance, Boardman *et alii* 1989: 123–124, Fig. 48.5–6), Delphi (Roux, Marcadé 1977: 457, 459, Figs 8, 9); for other examples from Greece and Italy, see also Chalkia 1991: 52–53. See also Alexandria (Tkaczow 2010: 338, Cat. Nos 1220, 1222, Pl. 140).

Vessels of this kind are found frequently in early Byzantine churches, although examples are known also from private dwellings (e.g., Raphanaeae). The early Byzantine date of these vessels, or more specifically tabletops, is indisputable and is based on well dated finds. The function of these vessels has been debated for years. Most researchers are persuaded by contextual analyses to consider them as auxiliary tables used in liturgy. They could have also served as tables for offerings and as luxury furniture in non-sacral interiors. There is no persuasive evidence to date to suggest that tabletops of this type were used as altars in early Byzantine churches (Kitzinger 1960: 24–32; Roux, Marcadé 1977: 463; Duval 1994: 199–200, with further reference; see Chalkia 1991: 73–75). In churches from coastal Phoenicia there are structures, well-documented in the naves as well as in the auxiliary rooms, that supported additional tables used by people for offerings or by the lectors (Duval 1994: 199–200). The possibility of there being several tables of this kind in the nave of the basilica in Jiyeh as well as in the side rooms could explain the relatively large number of vessels of this type on site. Tabletops in the form of a circular plate with molded rim, described below, could have served the

same purpose. Considering, however, that one of the fragments was found in a sealed context in the dwelling quarters, it cannot be excluded that vessels of this kind in Jiyeh were also used outside the basilica.

CIRCULAR PLATE WITH MOLDED RIM

Characterizing the type is a wide rim with single groove on the inside. Excavations in Jiyeh have produced three fragments of large tabletops of this kind, all made of a white marble, medium coarse-grained and gray veined. In one example, a partial relief ring can be seen on the upper side of the bottom [Fig. 2, upper center]. One fragment preserved a circular fillet that was used as a vessel base [Fig. 2, lower center]. The three fragments came from three different vessels. The diameter recorded for two examples was 66 cm and 75 cm. The thickness of the bottom in these cases ranged from 1.3 cm to 1.8 cm. The finishing of the inside and the body walls on the outside and rim was precise, the surfaces polished. On the underside, there are distinct radiating chisel marks. One of the fragments was found in a test pit in the dwelling district, in a leveling layer containing ceramic material dated provisionally to between the 4th/3rd century BC and the 3rd/4th century AD.

Parallel marble forms have been recorded in **Syria** (Tchalenko 1979: Pls 158–159, Figs 267–269); **Palestine**: Jerusalem (Bagatti 1969: 203, 73, 8.1), Khirbet Jemameh (Gophna, Feig 1993: 106, Fig. 16a), Sobata (Margalit 1987: 106, Figs 3, 4); **Transjordan**: Mount Nebo (Acconci 1998: 497, Cat. No. 74); **moreover**, Thasos (Sodini, Koklokotsas

1984: 194–195, Fig. 166, Pl. 73 d.), Chios (Ballance, Boardman *et alii* 1989: 123, Fig. 48.2–3, Pl. 16b), Delphi (Roux, Marcadé 1977: 459, Figs 10–12, Roux 1981: 78, Figs 24–27); for other examples from Greece and Italy, see also Chalkia 1991: 49–51. See also Alexandria (Tkaczow 2010: 338–339, Cat. Nos 1221, 1228, Pl. 140).

Vessels of this type occur in churches (primarily in the auxiliary rooms) as well as in non-sacral interiors. In northern Syria, tabletops of this kind were discovered in the bema of the church at Sergible. Examples of this type are also known from baptisteries. Some were of sigmoid shape instead of circular (Sodini, Koklokotsas 1984: 197–205, with further references). Dated examples of this form from other sites refer to the early Byzantine period. In view of this, the fragment from the test pit at Jiyeh is among the earliest of the published examples. The *terminus ante quem* for this vessel excludes its use in the Christian basilica, which could have been constructed in the 5th century AD at the earliest. By the same, this particular tabletop constituted most probably the furnishing of one of the houses in the dwelling quarter.

CIRCULAR PLATE WITH S-SHAPED RIM

The next type is a simplified variant of a circular plate with molded rim without the groove on the wide and out-turned rim [Fig. 2, bottom]. The finishing is the same as for plates with molded rim described above and the same kind of grey-veined, medium-coarse white marble material was used. Jiyeh has yielded so far one example of the form.

Variants of the type are known primarily from Palestine: Kafr 'Ana (Taxel 2007: 88, Fig. 6.1.3), Jerusalem (Mazar 2003: Pl. 1.13.3), Avdat (Negev 1997: 143, Photo 221). One example comes from Shiqmona (Amir 2006: 158, Fig. 8.2) in Phoenicia and one from Chios (Ballance, Boardman *et alii* 1989: 123, Fig. 48.4).

The finds come from the early Byzantine period exclusively, but the find context is vague in most cases, preventing any discussion of whether they were used in churches alone or also in other places.

CONCLUSIONS

In the light of parallels known from other Syro-Palestinian sites, the marble vessels recorded from the excavations at Jiyeh represent a standard repertoire of marble objects exported to the eastern provinces most probably from western Asia Minor and Greece. Their presence at Jiyeh places this large village, which it undoubtedly was in the early Byzantine period, located on the fringes of the territories of two large cities, Sidon and Berytus, squarely on the map of integrated Mediterranean trade markets. Finds of Hellenistic and Roman marble mortars from Cyprus and their evident absence from Palestine before the early Byzantine phase reflect a dynamic and developing market for these objects over the centuries.

One should remark briefly on the state of research in this field before examining the distribution of marble vessels in Syro-Palestine. It does not seem likely that objects of this type would not have surfaced in any quantity in large Mediterranean harbors like Seleucia Pieria, Laocidea, Sidon and Tyre. One

should also expect them in other large cities, like Antioch, Apamea and most of the cities of the Decapolis. Therefore, the absence of published marble objects of the said types is merely a reflection on the

general state of publication of results and the selective approach to material from excavations. Limited investigations in the form of ground surveys in the case of most villages from the northern and central

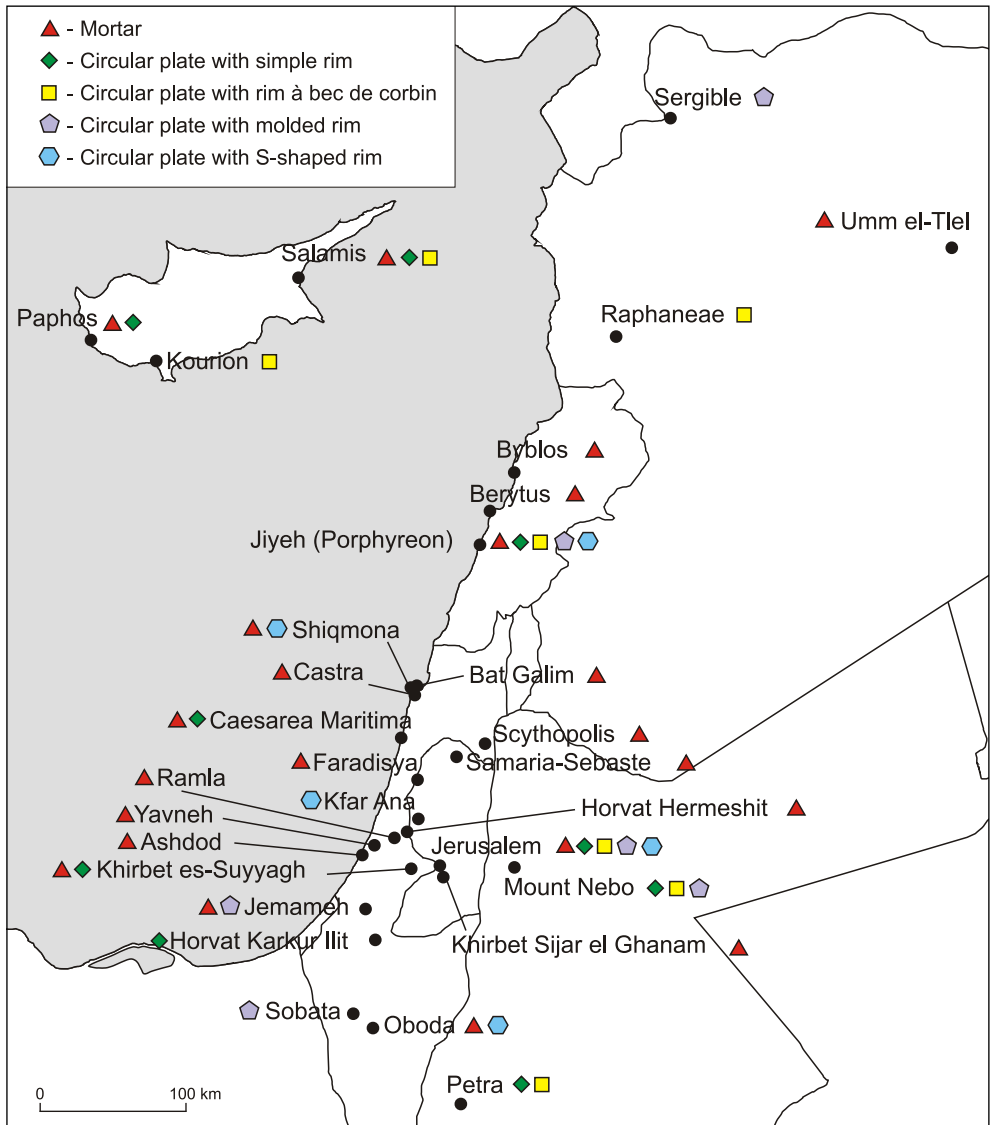


Fig. 3. *Distribution of marble vessels in Syro-Palestine*
(Drawing M. Gwiazda)

Levant could also be a factor in this state of affairs. It seems rather less probable that exports were selectively aimed at the southern Levant or that the population there had different preferences. Suffice it to mention finds of marble vessels in the north of the region, at Sergible and Raphanea. The export of other marble objects to Syria from Greece and Asia Minor is well documented (see Sodini 1989).

Even so, factors connected with distribution patterns cannot be wholly disregarded when considering the distribution of marble objects in Syro-Palestine. A mapping of the distribution of finds of marble objects in the region, especially its southern part, reflects the situation [Fig. 3]. There is an evident concentration of the finds in the coastal area. The largest number of marble mortars was recorded in cities and villages on the coast and in the immediate hinterland; for example, Caesarea Maritima has yielded 40 such objects (although one should keep in mind that some of the objects were produced on the spot). The further east one looks, the less finds one can see recorded. Most probably, the transport of such heavy objects far inland was not profitable, especially in view of there being a prolific local production of mortars made of basalt in northern Palestine and the Transjordan

region, as well as southern and northern Syria.

The situation with the distribution of liturgical vessels of different kinds is slightly different. In this case, the distance from supply sources in the coastal towns was of secondary importance as exemplified by the churches in Mount Nebo and Petra, both of which were dozens of kilometers away from the coast. A luxurious furnishing of the church appears to have been of paramount importance in these cases, justifying the effort and costs involved in the transport of such objects. Considering that the sanctuary at Mount Nebo was an important pilgrimage center and Petra a wealthy city, there must have been no dearth of rich donors who would have financed the purchase of objects of this kind. In the case of the villages in the Limestone Massif in northern Syria, the situation would have been different for geographical as well as financial reasons. Marble for use in the church interiors and furnishings was apparently less accessible, resulting in altar screens and reliquaries being produced of locally available stone, even as imported marble was used to make such objects in other parts of the Levant (for examples of church furnishings from the Limestone Massif, see Tchalenko 1979; Peña, Castellana, Fernández 1987; 1990; 1999; 2003).

Mariusz Gwiazda

PhD candidate, Centre for Research on the Antiquity of Southeastern Europe,
University of Warsaw

00-927 Warsaw, Poland, ul. Krakowskie Przedmieście 26/28

mariusz.gwiazda@gmail.com

REFERENCES

- Acconci, A.
1998 Elements of the liturgical furniture [in:] M. Piccirillo, E. Alliata, *Mount Nebo. New Archaeological Excavations 1967–1997* [=*Studium Biblicum Franciscanum. Collectio Maior* 27], Jerusalem: Studium Biblicum Franciscanum, 468–542
- Agady, S., Arazi, M., Arubas, B., Hadad, S., Khamis, E., Tsafirir, Y.
2002 Byzantine shops in the street of the monuments at Bet Shean (Scythopolis) [in:] L.V. Rutgers (ed.), *What Athens has to do with Jerusalem. Essays on Classical, Jewish, and Early Christian Art and Archaeology in Honor of Gideon Foerster* [=*Interdisciplinary Studies in Ancient Culture and Religion* 1], Leuven: Peeters, 423–506
- Amir, R.
2006 Pottery, stone and small finds from Shiqmona, *Atiqot* 51, 145–161
- Bagatti, B.
1969 Nuovi apporti archeologici al “Dominus Flevit” (Olivet), *Liber Annuus* 19, 194–236
- Ballance, M., Boardman, J., Corbett, S., Hood, S.
1989 *Excavations in Chios 1952–1955: Byzantine Emporio* [=*The British School of Archaeology at Athens. Supplementary Volume* 20], London: Thames & Hudson
- Bass, G.F., van Doorninck, F.H.
1982 *Yassi-Ada I. A Seventh-Century Byzantine Shipwreck* [=*Nautical Archaeology Series* 1], College Station, TX: Texas A&M University Press
- Bevan, A.
2007 *Stone Vessels and Values in the Bronze Age Mediterranean*, New York: Cambridge University Press
- Chalkia, E.
1991 *Le mense paleocristiane. Tipologia e funzioni delle mense scondarie nel culto paleocristiano* [=*Studi di antichità cristiana* 46], Vatican City: Pontificio istituto di archeologia cristiana
- Chavane, M.-J.
1975 *Salamine de Chypre VI. Les petits objets*, Paris: De Boccard
- Corbo, V.C.
1955 *Gli scavi di Kh. Siyar el-Ghanam (Campo dei pastori) e i monasteri dei dintorni* [=*Studium Biblicum Franciscanum. Collectio Maior* 11], Jerusalem: Tipografia dei PP. Francescani
- Crawford, J.S.
1990 *The Byzantine Shops at Sardis* [=*Archaeological Exploration of Sardis Monograph* 9], Cambridge, MA: Harvard University Press
- Crowfoot, J.W., Crowfoot, G.M., Kenyon, K.M.
1957 *The Objects from Samaria*, London: Palestine Exploration Fund
- Crowfoot, J.W., Fitzgerald, G.M.
1929 *Excavations in the Tyropoeon Valley, Jerusalem, 1927*, London: Palestine Exploration Fund
- Davidson, G.R.
1952 *Corinth XII. The Minor Objects*, Princeton, NJ: The American School of Classical Studies at Athens
- Deonna, W.
1938 *Le mobilier délien* [=*Exploration archéologique de Délos* 18], Paris: De Boccard

- Dothan, M.
1971 *Ashdod II–III. The Second and Third Season of Excavations, 1963, 1965, Soundings in 1967* [=‘*Atiqot* 9–10], Jerusalem: Department of Antiquities and Museums in the Ministry of Education and Culture; Department of Archaeology, Hebrew University; Israel Exploration Society
- Dunand, M.
1939 *Fouilles de Byblos I. Texte, 1926–1932* [=BAH 24], Paris: Geuthner
1950–1958 *Fouilles de Byblos II. 1933–1938* [=Études et documents d’archéologie 3], Paris: Geuthner
- Duval, N.
1994 L’architecture chrétienne et les pratiques liturgiques en Jordanie en rapport avec la Palestine. Recherches nouvelles [in:] K. Painter (ed.), “*Churches Built in Ancient Times*”. *Recent Studies in Early Christian Archaeology*, London: Society of Antiquaries of London, 149–212
- Duval, N., Marin, E. (eds)
1994 *Salona. Recherches archéologiques franco-croates à Salone I. Catalogue de la sculpture architectural paléochrétienne de Salone* [=Collection de l’École française de Rome 194/1], Rome: École française de Rome
- Figueras, P.
2004 *Horvat Karkur ‘Illit. A Byzantine Cemetery Church in the Northern Negev (Final Report of the Excavations 1989–1995)* [=Beer Sheva Archaeological Monographs 1], Beer-Sheva: Ben-Gurion University of the Negev Press
- Fischer, M., Taxel, I.
2007 Ancient Yavneh. Its history and archaeology, *Tel Aviv* 34, 204–284
- Geva, H.
2006 Stone artifacts [in:] H. Geva, *Jewish Quarter Excavations in the Old City of Jerusalem Conducted by Nahman Avigad, 1969–1982, III. Area E and Other Studies, Final Report*, Jerusalem: Israel Exploration Society, 218–238
- Gill, M.V.
1986 The small finds [in:] R.M. Harrison (ed.), *Excavations at Saraçhane in Istanbul I. The Excavations, Structures, Architectural Decoration, Small Finds, Coins, Bones, and Molluscs*, Princeton, NJ: Princeton University Press, 226–277
- Giudice, F., Giudice, G., Giudice, E.
2000 Paphos, garrison’s camp. VIIa campagna, *RDAC* 2000, 259–299
- Gophna, R., Feig, N.
1993 A Byzantine monastery at Kh. Jemameh, ‘*Atiqot* 22, 97–108
- Greenhut, Z.
1998 Horvat Hermeshit (1988–1990), ‘*Atiqot* 34, 121–172 [in Hebrew]
- Gschwind, M., Hasan, H.
2011 Ground penetrating radar (GPR) surveys conducted in Raphanae in 2009, *Chronique archéologique en Syrie* 5, 219–231
- Kanellopoulos, C., Schick, R.
2001 Marble furnishings of the apses and the bema, phase V [in:] Z.T. Fiema, C. Kanellopoulos, T. Waliszewski, R. Schick (eds), *The Petra Church* [=American Center of Oriental Research Publications 3], Amman: American Center of Oriental Research, 193–214
- Kitzinger, E.
1960 A marble relief of the Theodosian Period, *Dumbarton Oaks Papers* 14, 17–42

- Korkut, T.
2002 Steinerne Mörserschalen aus Patara, *AA 1*, 233–245
- Lehtinen, A.
2008 Marble furnishings and decoration [in:] Z.T. Fiema, J. Frösén, *Petra — The Mountain of Aaron. The Finnish Archaeological Project in Jordan I. The Church and the Chapel*, Helsinki: Societas Scientiarum Fennica, 187–232
- Loverance, R.
1990 Early Byzantine marble church furnishings: some examples from the episcopal basilica of Kourion in Cyprus [in:] R. Morris (ed.), *Church and People in Byzantium. Twentieth Spring Symposium of Byzantine Studies, Manchester, 1986*, Birmingham: Centre for Byzantine, Ottoman and Modern Greek Studies, University of Birmingham, 225–243
- Magen, Y.
2002 *The Stone Vessel Industry in the Second Temple Period. Excavations at Hizma and the Jerusalem Temple Mount [=Judea and Samaria Publications 1]*, Jerusalem: Israel Exploration Society
- Majcherek, G., Taha, A.
2004 Roman and Byzantine layers at Umm el-Tlel: ceramics and other finds, *Syria 81*, 229–248
- Margalit, S.
1987 The north church of Shivta: the discovery of the first church, *Palestine Exploration Quarterly 119/2*, 106–121
- Mazar, E.
2003 *The Temple Mount Excavations in Jerusalem 1968–1978, Directed by Benjamin Mazar. Final Reports II. The Byzantine and Early Islamic Periods [=Qedem 43]*, Jerusalem: Institute of Archaeology, The Hebrew University of Jerusalem
2007 A Byzantine building in area XVI [in:] E. Mazar, *The Temple Mount Excavations in Jerusalem 1968–1978, Directed by Benjamin Mazar. Final Reports III. The Byzantine Period [=Qedem 46]*, Jerusalem: Institute of Archaeology, The Hebrew University of Jerusalem, 3–22
- Negev, A.
1997 *The Architecture of Oboda. Final Report [=Qedem 36]*, Jerusalem: Institute of Archaeology, The Hebrew University of Jerusalem
- Niewöhner, P.
2006 Frühbyzantinische Steinmetzarbeiten in Kütahya. Zu Topographie, Steinmetzwesen und Siedlungsgeschichte einer zentralanatolischen Region, *Istanbul Mitteilungen 56*, 407–473
- Oren-Paskal, M.
2008 Excavation at Bat Galim: the pottery, *Contract Archaeology Reports 3*, 32*–53*
- Öztaşkın, M., Öztaşkın, G.K.
2012 “The building with mosaics” in Olympos: a comparative evaluation of finds and building construction [in:] B. Böhlendorf-Arslan, A. Ricci (eds), *Byzantine Small Finds in Archaeological Contexts [=Byzas 15]*, Istanbul: Yayınları, 277–287
- Patrich, J., Shadmi, T.
2008 The stone vessels [in:] J. Patrich, *Archaeological Excavations at Caesarea Maritima. Areas CC, KK, and NN. Final Report I. The Objects*, Jerusalem: Israel Exploration Society, 345–365

- Peña, I., Castellana, P., Fernández, R.
 1987 *Inventaire du Jébel Baricha. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* [=Studium Biblicum Franciscanum. Collectio Minor 33], Jerusalem: Franciscan Printing Press
 1990 *Inventaire du Jébel el-A'la. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* [=Studium Biblicum Franciscanum. Collectio Minor 31], Jerusalem: Franciscan Printing Press
 1999 *Inventaire du Jébel Wastani. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* [=Studium Biblicum Franciscanum. Collectio Minor 36], Milan: Franciscan Printing Press
 2003 *Inventaire du Jébel Doueili. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* [=Studium Biblicum Franciscanum. Collectio Minor 46], Milan: Franciscan Printing Press
- Prag, K.
 2008 *Excavations by K.M. Kenyon in Jerusalem 1961–1967, V. Discoveries in Hellenistic to Ottoman Jerusalem* [=Levant Supplementary Series 7], London: Council for British Research in the Levant
- Roux, G.
 1973 Tables chrétiennes en marbre découvertes à Salamine [in:] G. Argoud *et alii*, *Salamine de Chypre IV. Anthologie Salaminienne*, Paris: De Boccard, 133–196
 1981 Problèmes déliens, *BCH* 105/1, 41–78
- Roux, G., Marcadé, J.
 1977 Tables et plateaux chrétiens en marbre découverts à Delphes, *BCH Supplément* 4, 453–465
- Sodini, J.-P.
 1989 Le commerce des marbres à l'époque protobyzantine [in:] C. Abdie-Reynal *et alii* (eds), *Hommes et richesses dans l'empire byzantin I. IV^e–VI^e siècle* [=Réalités byzantines 1], Paris: Lethielleux, 163–186
- Sodini, J.-P., Koklokotsas, K.
 1984 *Aliki II. La basilique double* [=Études Thasiennes 10], Paris: De Boccard
- Sparks, R.T.
 2007 *Stone Vessels in the Levant* [=The Palestine Exploration Fund Annual 8], Leeds: Maney
- Stucky, R.A.
 1996 Ausgewählte Kleinfunde [in:] A. Bignasca, *Petra — Ez Zantur I. Ergebnisse der Schweizerisch-Liechtensteinischen Ausgrabungen 1988–1992* [=Terra archaeologica 2], Mainz am Rhein: Philipp von Zabern, 337–352
- Tal, O., Taxel, I.
 2008 *Ramla (South), an Early Islamic Industrial Site and Remains of Previous Periods* [=Salvage Excavations Reports 5], Tel Aviv: Emery and Claire Yass Publications in Archaeology
- Taxel, I.
 2007 Stone, bone, shell and metal objects [in:] R. Gophna, I. Taxel, A. Feldstein, *Kafr Ana. A Rural Settlement in the Lod Valley* [=Salvage Excavation Reports 4], Tel Aviv: Emery and Claire Yass Publications in Archaeology, 88–98
 2009 Marble furnishings [in:] I. Taxel, *Khirbet es-Suyyagh. A Byzantine Monastery in the Judaean Shephelah* [=Salvage Excavations Reports 6], Tel Aviv: Emery and Claire Yass Publications in Archaeology, 165–171

- Tchalenko, G.
1979 *Églises de village de la Syrie du Nord. Planches* [=BAH 105], Paris: Geuthner
- Tkaczow, B.
2010 *Architectural Styles of Ancient Alexandria. Elements of Architectural Decoration from Polish Excavations at Kom el-Dikka (1960–1993)* [=Alexandrie 8], Warsaw: Centre d'Archéologie Méditerranéenne de l'Académie Polonaise des Sciences
- Waliszewski, T.
1997 Stone objects from Caesarea Maritima in the Cracow Archaeological Museum, *Materiały Archeologiczne* 30, 67–71
- Waliszewski, T., Gwiazda, M.
2013 Preliminary report on the 2010 excavation season at Jiyeh (Porphyreon), *PAM* 22, (*Research 2010*), 321–333
- Waliszewski, T., Juchniewicz, K., Gwiazda, M.
2012 Preliminary report on the 2008 and 2009 excavation seasons at Jiyeh (Porphyreon), *PAM* 21 (*Research 2009*), 423–445
- Waliszewski, T., Wicenciak, U., el-Tayeb, M., Domżański, K., Witecka, A., Wagner, M., Herbich, T., Noureddine, I., Woźniak, M., Kotlewski, K., Żukowski, U.
2006 Jiyeh (Porphyreon). Hellenistic, Roman and Byzantine settlement on the southern coast of Lebanon. Preliminary report on the 1997, 2003–2005 seasons, *BAAL* 10, 5–84
- Wightman, G.J.
1989 *The Damascus Gate, Jerusalem. Excavations by C.-M. Bennet and J.B. Hennessy at the Damascus Gate, Jerusalem, 1964–66* [=BAR IS 519], Oxford: Archaeopress
- Zemer, A.
1999 *Castra at the Foot of Mount Carmel. The City and its Secrets*, Haifa: National Maritime Museum
- Zissu, B., Moyal, H., Ganor, A.
2009 Tombs, quarries and agricultural installations at Fardisya (East), *Atiqot* 61, 61*–74* [in Hebrew]

