Large-scale construction works in preparation for tourist development in the northern part of the site of Jiyeh (Graeco-Roman Porphyreon), begun in 2003, necessitated immediate archaeological intervention. This was undertaken by a joint Polish-Lebanese mission. The first reconnaissance in the area of the Late Roman necropolis, conducted by the present authors in September 2003 (concurrently with geophysical prospection), revealed, beside many damaged tombs, large concentrations of fairly standard pottery of the so-called brittle-ware type and other coarse-ware fabrics. Some misfired fragments and other wasters testified to the presence of a pottery production center somewhere in the neighborhood.

The site was tested in 2004 (cf. Fig. 1 on p. 424 for a plan of the site with the location of trenches and areas surveyed geophysically). Trial pits B1-B3 were dug in the southern part of the necropolis [Figs. 1-2], where...
concentrations of pottery sherds were the densest and traces of burning and ash were noted. A well (B4) full of pottery fragments, including more or less complete vessels, was uncovered during bulldozing work c. 60 m to the northwest of the first trial pits [Fig. 3]. Further in the same sector brought to light a nondescript rectangular structure made of sandstone blocks (B5), as well as another well and nearby basin (B6). These were cleaned and recorded, but their precise function could not be determined.
The main trial pit (B1), measuring 12 by 4 m, bisected an ambiguous rounded feature, which was suspected to represent the remains of a destroyed pottery kiln. Unfortunately, exploration of the gray spot containing traces of burning and ashes, c. 5-6 m in diameter, ended quickly as no structural element was found. The large pottery dump noted nearby in the northern trench wall was explored after enlarging the trench 2 m to the north [Fig. 4]. Trial pits B2-B3 were of slightly smaller dimensions and were located about 15-20 m to the south of B1. Traces of burning accompanied the abundant pottery finds from this area. In all trenches (B1-B3), sterile soil was reached, revealing the homogeneous nature of the stratigraphy and material across the area.

The coarse pottery assemblage comprised vessels of various form and size – cooking pots, transport amphorae, pot stands, lids, jugs, bowls, dishes and pans – strongly dominated, however, by two forms of cooking pots (see below). Other forms were represented less numerously. Wasters were in evidence. Single examples of local imitations of some imported fine ware vessels and oil lamps were found in all the trenches.

A sprinkling of imported fine ware fragments (see below), regularly distributed through all the trenches and layers, indicated that the pottery dumps had accumulated in the course of the 2nd century BC. A comparison of coarse ware forms from the dumps with parallels from other sites in the region (mainly Beirut) confirmed the dating.

![Fig. 4. Pottery dump in trial pit B1, visible north trench wall with a section through the dump (Photo K. Domżalski)](image-url)
LOCALLY PRODUCED POTTERY FROM TRIAL PITS B1-B3

The huge quantities of strongly fragmented sherds of brittle-ware and other coarse vessels, including many misfired pieces, proved that the following forms: cooking pots, pot stands, flat-based bowls and dishes, jugs, lids, transport amphorae and oil lamps, must have been manufactured in nearby workshops. The fabric was rather similar in all cases, granular and rough in the break, and rather gritty on the surface. The color depended on firing conditions and went from grayish, greenish and brownish to reddish and orange. Most of the wasters represented deformed vessels; the amorphous fired clay blocks were of greenish hue.

Two types of cooking pots prevailed in the assemblage: a globular pot with collar-type vertical rim [Fig. 5] and one with an outward-slanting rim. Fragments of the first form were the most numerous. Pot stands, flat-based bowls and dishes, jugs and lids were of fairly similar shape, differing in size alone. Interestingly, almost all of the lids had handles intentionally pierced with a pointed tool.

Fig. 5. Locally made cooking pot fragments from trial pits B1-B3 (Photo K. Domżalski)

Fig. 6. Locally made transport amphorae fragments from trial pits B1-B3; note wasters on the right (Photo K. Domżalski)
Several forms of amphorae could be distinguished, differing in rim profiles, handles and bases [Fig. 6]. They were generally un-stamped, as only two stamps on handles were found among several hundred un-stamped ones. Moreover, some complete loom-weights and fragments of braziers of different types were found. It is unclear, whether they were also locally made as not many were found and there were no misfired examples among them.

Single fragments of unfinished and deformed, rather thin-walled vessels of tableware type, such as bowls and oil lamps, led to the assumption that a small series of finer pottery made in the typical brittle ware fabric was also produced by the local potters. The most evident case is that of a watch-shaped oil lamp with unpierced nozzle [Fig. 7]. Furthermore, several pieces of jugs and unguentaria, as well as of a terracotta figurine were collected.

**IMPORTED POTTERY FROM B1-B3**

Most frequent among the generally scarce imported fine ceramics are fragments resembling the so-called Hellenistic Color-coated Ware A group, possibly of southeastern Aegean origin, characterized by mostly uniform red slip, as well as black-gloss ware from some Asia Minor and possibly Italian (Campanian) centers. Moreover, a single sherd of Eastern Sigillata A (ESA) originating from the region of Antioch was recorded.

The first group was represented by undecorated bowls with incurved rims, plates

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Fig. 7. Imported (above) and locally made (below) oil lamps from trial pits B1-B3; note the lamp with unpierced nozzle in the bottom left corner (Photo K. Domżalski)

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4 Cf. J.W. Hayes, The Hellenistic and Roman Pottery, Paphos III (Nicosia 1991), 23-24, Fig. XII:1-3.
5 J.W. Hayes, "Sigillate orientali", in: Ceramica fine romana nel bacino mediterraneo (tardo ellenismo e primo imperio), Atlante delle forme ceramiche II, Enciclopedia dell'Arte antica, classica e orientale (Roma 1985), 9-48, Pls. 1-XI.
The accidentally discovered well was horseshoe-shaped, the upper section measuring 1.30 by 1.10 m, the base 1.60 by 1.30 m. The upper part of the well was built of sandstone blocks to a depth of 2.40 m. The lower part was cut in the sandstone, reaching a maximum depth of about 7 m. The well was filled with pottery sherds. The upper part of the filling contained mainly large fragments of amphorae with little interspersed earth and sand. The lower layers revealed sherds and some better preserved vessels of other forms mixed with earth, sand, mud and gray soil. This filling continued to the very bottom of the well.

The huge amount of pottery material found in the well is estimated at about 10.35 cubic meters [cf. Fig. 3]. The diversity of standardized vessel forms merits interest. The assemblage contained amphorae, cooking pots, jugs, bowls, dishes, pans, and pot-stands (cf. below). It included many diagnostic fragments and some misfired pieces, but almost complete vessels were also unearthed.

The well may have been dug to provide water for a pottery workshop operating nearby. For one reason or another, it was used thereafter as a dump for ceramic production wasters. It is important to note that besides the locally-made ceramics, no other rubbish of the usual kind was ever thrown into it, apart from a very limited number of imported fine ware fragments (cf. below), bricks, shells and bones of some small species of animals.

**WELL 1 (B4)**

Down to a depth of about 2 m, the ceramic assemblage was dominated by amphora sherds. Altogether six forms were distinguished, including three forms represented by a single example each. The most frequent containers, form 1 [Figs. 8-9] are characterized by a brown-reddish fabric with light gray core, medium texture and hardness, a great deal of very small and a few large white lime grains, as well as some black grains and quartz. They have rather thin walls with a ribbed profile. Their most characteristic features are that they are of medium-length, have a broad neck, plain down-turned rim, and a conical-pointed base. Fragments of this form included many over-fired and deformed pieces. Interestingly, the finds from...
JIYEH
LEBANON

Jiyeh are similar in form and fabric to the material from Beirut, especially the amphorae produced in Beirut in the mid 1st century AD. However, unlike the Beirut ones, the amphorae from Well 1 (B4) bear no potters’ marks.

Below the third meter, there appeared another form of amphorae, as well as several forms of utility vessels, such as cooking pots, casseroles, pans, jugs, juglets, bowls and pot-stands. Some of these forms were represented by only a few sherds, including over-fired ones. Nearly all of the mentioned vessels have distinctive subtypes, especially recognizable by their rims and necks. The prevailing kitchen ware vessels included cooking pots and casseroles with sagging or flat bases, among which four main variants could be distinguished. The Beirut analogies date the majority of these vessels tentatively to the mid-1st century AD.

Mr. Abdallah Ala'eddine kindly consulted this material.


Fig. 8. Locally made amphora form 1
(Phot M. Kisielewicz, drawing U. Wiceniak)
Fig. 9. Locally made transport amphorae fragments from Well 1 (B4)
(Photo K. Dornalski (top), M. Kisielewicz)
The third group (after amphorae and cooking pots) strongly represented in the assemblage, in quantity as well as variety, are the bowls. Some variants could be identified, including the ones (less frequently encountered) characterized by a flat rim and base, and diameter up to 0.40 m, as well as another variant with a grooved rim.

Other fragments represented imitations of Italian-type *orlo bifido* pans. Moreover, large numbers of dishes with flat, deeply grooved rim were found, some of them decorated on the outer edge of the rim with impressed twisted rope-like patterns. The last form collected in relatively large quantities are the pot stands. Their homogenous fabric could also indicate their local origin. Finally, jugs made up a small but varied group with a few virtually complete items.

The rich diversity of standardized vessel forms in this sealed deposit is noteworthy. Almost all the fragments bear no sign of daily use, which means that they were rejected during or right after manufacture.

**IMPORTED POTTERY FROM WELL 1 (B4)**

Very few sherds of imported fine-ware vessels were found among the masses of coarse pottery. They embraced some small and worn fragments of bowls and plates of black-gloss ware Estern Sigillata A (ESA) forms 3-4, as well as so-called Cypriot Sigillata (CS) form 22A. All these early pieces can be dated to the 1st century BC and the beginning of the 1st century AD. Bigger and best represented fragments, much less worn, belong to ESA plates, forms 35 and 37, as well as bowls, forms 46-47, including a base of a bowl featuring a rectangular XAPIC stamp. They dated the termination of the well deposit to no earlier than the late 1st century AD. Additionally, some single fragments of mould-made Roman lamps and amphorae from North Africa (probably Tunisia or Libya) were identified among the finds.

**RECTANGULAR STONE STRUCTURE (B5)**

A rectangular structure (B5) situated about 50 m to the west of trial pits B1-B3 was brought to light during bulldozer work. The feature measured c. 8 by 6 m and had walls preserved up to a height two courses of big sandstone blocks. Its general appearance gave the impression of a sort of platform rather than chamber. The earth around the walls was compact, containing numerous potsherds, charcoal and other organic material. The charcoal, recorded in the northern and eastern stratigraphic cross-sections, evidenced long-term burning processes. As it was not possible to explore this feature thoroughly, its function remains unknown.

**WELL 2 AND BASIN (B 6)**

Another well was found c. 10 m to the southwest of the above described one (well 1, B4) [Fig. 10]. Its upper part, built of regular sandstone blocks, had been damaged by bulldozer. The well was excavated to a depth of only about 4 m below the sur-
face. It was oval in shape with the biggest diameter being c. 2.40 m. For technical reasons it was not possible to explore it to the very bottom, and the explored part was full of very fine white sea sand absolutely devoid of any artifacts.

Remains of what seems to be a basin associated with Well 2 were discovered to the west of it [cf. Fig. 10]. Parts of the east and south walls of the basin were excavated, the rest remaining concealed under a provisional modern road. The basin may have gone out of use when the nearby well dried up. Afterwards, it quickly filled with earth including potsherds, charcoal, glass and organic materials. Altogether nine layers were recorded.

Once the basin was filled, some other structure was erected on the same spot. Remnants of a gravel-and-lime floor are suggestive of a chamber measuring 4.28 by 2 m. Of great interest is the layer beneath the room surface, about 0.10-0.15 m thick and consisting of pure white sea sand. The sea level must have been higher at one point, allowing sand to accumulate over the last ancient occupation layer dated to the Hellenistic period. Therefore, Well 2 could also date from that time, as it had been filled with the same type of sand.

Fig. 10. Well 2 and basin (B6) seen from the south-east
(Photo M. El-Tayeb)
CONCLUSIONS

The ample ceramic material with many wasters provides good evidence for a long-lasting tradition of pottery manufacture at Jiyeh, a tradition embracing the years at least from the 2nd century BC to the late 1st century AD or even slightly later. Unfortunately, no remains that could be related to workshop infrastructure, such as pottery kilns, were found in the area destroyed by modern construction works. However, one should bear in mind that in later Roman times the whole territory began to be used for burial purposes and production activity must have ceased. It can only be supposed that the workshops were abandoned and gradually fell into ruin. The present total devastation has made it impossible to record any remains near the described features. Hopefully, some traces of the workshops in question may have survived beyond the boundaries of the present construction site and will be discovered in the future.

The material presented here offers a good opportunity for detailed analysis of locally manufactured vessels. The studies in progress now will contribute to an understanding of pottery distribution patterns on the Lebanese coast and possibly in the hinterland as well.