

Roman wheel-made lamps from Carthago Nova: an illuminating cult vessel?



Abstract: The lychnological material from Roman Hispania includes a little-known type of wheel-made oil lamp that has recently been studied for the first time: a form of small dimensions, produced between the 1st and 3rd centuries AD. Most of the known finds are from Cartagena, hence the idea that the type may have originated from this harbor. The paper reviews the available data on this lamp production and suggests a specific functionality for the type based on some peculiar characteristics.

Keywords: Palaimonion lamps, Isthmia, votive light, wheel-made ceramics, Roman lamps

A peculiar type of lamp produced between the 1st and 3rd centuries AD is well documented from Roman ceramic contexts in and around the colony of Carthago Nova (Cartagena) in the southeastern part of the Iberian Peninsula [Fig. 1]. Its abundance in the city and the similarity of its clay to the fabric of ceramics from the area identify the lamps as a product of local workshops (Quevedo 2012).

Alejandro Quevedo

University of Murcia

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This particular wheel-made lamp is hemispherical in shape, the walls curved or concave and the shoulder rounded [Fig. 2 left]. The base is flat and without a foot; it is sometimes irregular in later specimens. The most conspicuous feature of the lamps is an open reservoir and a raised tube in the center to hold the wick, furnished with two lateral incisions for letting the fuel into the tube. The tube and the reservoir are made in one piece, as old breaks have shown. The fuel must have been a liquid substance like oil, which passed through the slits into the tube, boosting the ignition of the wick. The lamps stand out from the well-known contemporaneous molded Italian and African imports, because they are wheel-made.

There is no slip on the surface of the lamps, no special treatment. The color of the clay, varying from beige to orange, indicates an oxidation firing atmosphere [Fig. 3]. Some brown and grey examples are evidence of either a reduction atmosphere during firing or excessive temperature in the kiln, although apparently not intentionally produced. The lamp clay can be described macroscopically as pure and finely textured,¹ with small inclusions of calcite about 0.5–1 mm, exceptionally larger in size (4–7 mm). Silver mica and some quartz grains can occasionally be observed on the surface. The composition, firing, color, and treatment correspond to the fabric of ceramics from Carthago Nova produced

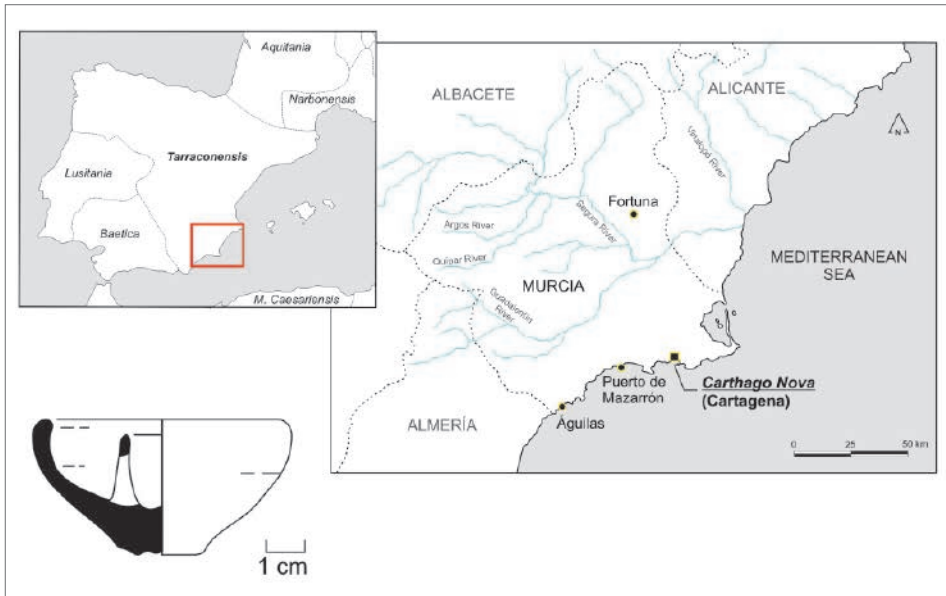


Fig. 1. Main findspots of the wheel-made lamps around Carthago Nova in the southeastern part of the Iberian Peninsula (Digitizing A. Quevedo)

1 Archaeometric analysis in progress in collaboration with Claudio Capelli (DISTAV, University of Genoa).

in an oxidation atmosphere, although there is no archaeological evidence for such production in the city. A specimen initially identified as an unfired piece (Quevedo 2012: 346, Fig. 15.9) must be treated with reserve.

The specimens considered here seem to come mainly from the territory of Cartagena. Examples have been observed

in households and rubbish dumps inside the colony, but the largest group is a set of more than 230 specimens found in the vicinity of the Augusteum. Outside the city, lamps of this type were discovered in the Roman sanctuary of Fortuna as well as in the ports of Águilas and Mazarrón, all of them located in the region of Murcia [see Fig. 1].

TYOLOGY

The wheel-made lamps from Carthago Nova represent a single type, which preserved the main characteristics and dimensions despite a certain evolution across time. The average diameter is

6–6.5 cm. The size and compactness of these artifacts allowed many specimens to be preserved intact, enabling the identification of three subtypes or variants: A, B and C. Considered in

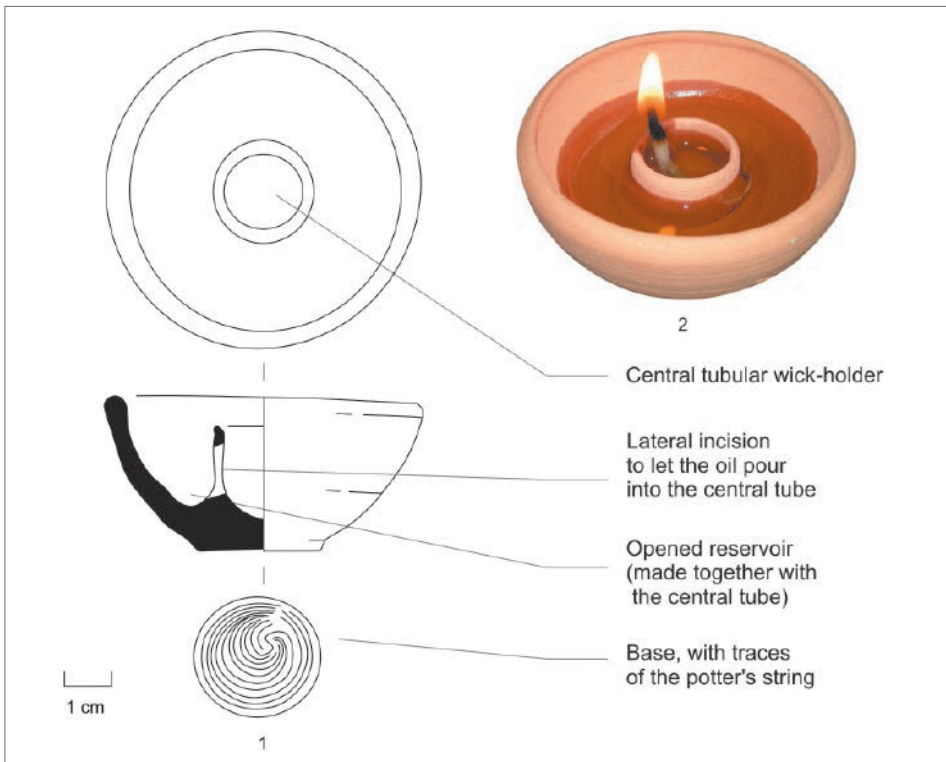


Fig. 2. Wheel-made lamp from Carthago Nova: left, the shape and the main parts of this type; top right, experimental burning of a model lamp (Drawing and photo A. Quevedo)

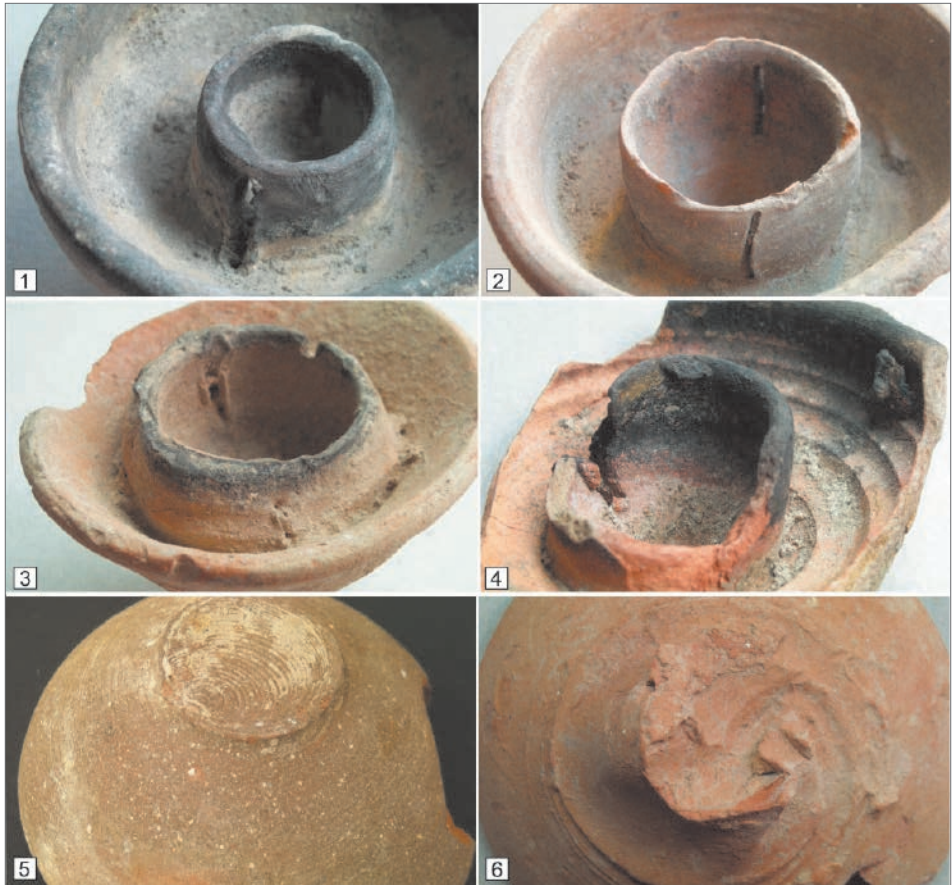


Fig. 3. Production details of the wheel-made lamps: 1-4 – slits in the sides of the raised tube and evidence of burning; 5 – flat bottom of a specimen representing an early type; 6 – pointed bottom of a lamp of the late type (Photos A. Quevedo)

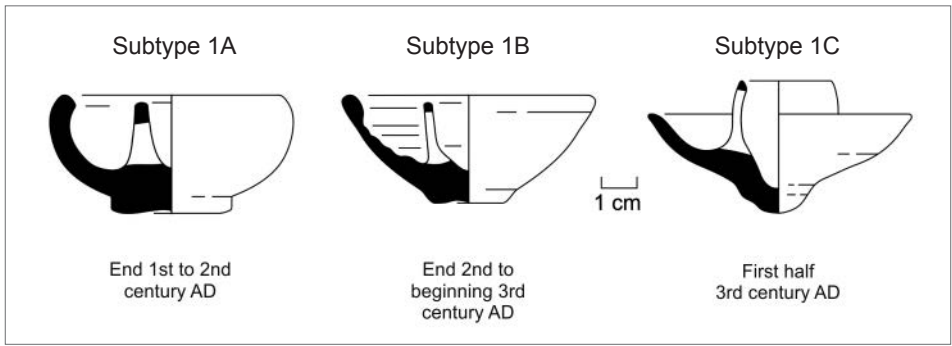


Fig. 4. Typological development of wheel-made lamps from Carthago Nova: subtypes A, B and C (Drawing A. Quevedo)

conjunction with the stratigraphy of deposition contexts, these types have been dated between the end of the 1st century AD and the beginning of the 3rd century AD [Fig. 4].

Subtype 1A

Body almost hemispherical, with curved concave walls and a flat string-cut bottom [Fig. 3:5], indicating that the piece was still rotating on the wheel when cut away (Rye 1988: 75). The wick tube may vary in size, yet it does not rise higher than the body walls as a rule. One of the oldest specimens of this subtype dates to the end of the 1st century AD, this variant becoming common in the first three quarters of the 2nd century AD.

Subtype 1B

Body with less and less bulging walls, abandoning the almost fully hemispherical shape. The bottom is flat and shows an increasing tendency to becoming irregular. These changes announce the further evolution of the form, hence it may be identified as a variant of “transition” between subtypes A and C, which present more constant char-

acteristics. In terms of its chronology, it is set between the end of the 2nd century and the beginning of the 3rd century AD.

Subtype 1C

Body adopts a flattened concave profile with pointed base [Fig. 3:6]. The reservoir is more open and the wick tube becomes bigger, occasionally rising higher than the reservoir walls and actually turning into a reservoir itself. The bottom, sometimes simply pinched by the potter, is almost conical in shape, meaning that the lamp cannot stand by itself and needs a support of some kind. Chronologically, subtype C is situated in the first half of the 3rd century AD. After that its presence in urban contexts seems residual.

Experimental archaeology in 2012 [see Fig. 2 top right] demonstrated a number of reasons behind the abundance of forms, resulting from applying the same techniques of execution (Quevedo 2012: 328–329, Fig. 4). They ranged from the actual sequence of production stages to the intensity of pressure applied by the potters during shaping on the wheel based on their expertise (García Roselló 2007: 47).

FUNCTIONALITY

The wheel-made lamps from around Carthago Nova resemble candle-holders. Candles made of tallow fat or wax were in use already in Roman times, as attested in the iconography and by some pieces from the vast regional *instrumentum domesticum* (s.v. candlesticks, in Bailey 1988: 173–174). In the legionary camp of Vindonissa, a very similar form developed into the Loeschcke XIV type (Loeschcke 1919:

312–314). These lamps are of cylindrical shape, with a flat bottom and straight or slightly convex walls, and are characterized by a central wick tube pierced with some incisions. They started in the 1st century AD and were widely distributed north of the Alps. As for their use, it was proposed that different materials, such as tallow fat and wax, could have been used alternatively, which would explain the term used by

Loeschcke, “Leuchterlampe” or “lucerna-candelabro” (Loeschcke 1919: 317–318).

In the case of the Cartagena wheel-made lamps, however, the fire marks on the walls denote direct and continuous contact with a flame that would be difficult to produce with a candle [Fig. 3.1–4]. In addition, the bottom, narrow and irregular in the late specimens, does not facilitate the use of solid candles. Probably some kind of support must have been used to keep the lamp horizontal and the central tube vertical, as indicated by the horizontal combustion traces. The support was probably made of some perishable material that has not been preserved in archaeological contexts. Some ceramic stands could have been used as supports of this kind, e.g., the late wheel-made type E VI 2 of Jean Bussière, known from Algeria (Bussière 2000: 126–127 and 400, N.6548–N.6625), also manufactured on a wheel. One possible way of using these late lamps is to place them in containers filled with sand, much like the lit candles in modern Orthodox churches.

The kind of fuel used is an important and still debated issue (Garnier, Tokarski, and Rolando 2011).² Although oil has been considered, many other fuels, such as beeswax and animal fat, used in the Loeschcke XIV wheel-made lamps, were marketed in ancient times. Animal fat has cultural connotations, traditionally associated with Transalpine use, while the Greco-Roman world would have preferred liquid oil as a more abundant product in the Mediterranean.

Of interest is the low capacity of the Carthago Nova wheel-made lamps. Their reservoir capacity ranges from 32 ml for the largest specimens, down to 6–8 ml for the smallest ones. This contrasts sharply with the 100 ml capacity of standard wheel-made lamps, which could guarantee about 14 hours of illumination. A very short operational time is thus implied for the wheel-made lamps (four hours for those of 20 ml), which would hence have to be refilled more frequently (Quevedo 2012: 347).

SPECIFIC USE? THE CASE OF THE *PALAIMONION* LAMPS

The wheel-made lamps of Carthago Nova were clearly intended for lighting purposes. But their peculiar shape and low capacity may be taken to imply a different purpose.

Wheel-made lamps were used in the Iberian Peninsula from Punic times, but there is no workshop tradition to ex-

plain the origin of the Cartagena type with the exception of some types produced on the Atlantic coast of the peninsula mainly in the late period (Delgado and Morais 2009: 103–105, No. 326). The closest parallels are the *Palaimonion* lamps from Isthmia in Greece. These wheel-made lamps were found

2 Ongoing analyses of the organic residue, conducted with Nicolas Garnier, should lead to a determination of the kind of fuel that was used in this case.

in a sanctuary of ancient origin, to be linked with the nearby city of Corinth, where Poseidon-Demeter and the hero Melikertes-Palaimon were worshipped (Broneer 1977: 35–52). The *Palaimonion* lamps have their bodies shaped like a small bowl without a handle, with a central tube to hold the wick, some of these tubes bearing several intentional slits for letting the oil pour in, whereas the flat bottom may be string-cut [Fig. 5]. Broneer opined about the use of oil as fuel, alluding to fire marks and proposing the use of a rolled wick, like the one in modern kerosene lamps. Had the wick been as thick as the tube itself, it would have consumed the fuel

very quickly and produced too much smoke (Broneer 1977: 35). These particular lamps were manufactured mainly during the 2nd and 3rd centuries AD (Gebhard, Hemans, and Hayes 1998: 445–446) and their distribution appears to have been limited to the sanctuary, as no other specimens were found anywhere in its close vicinity (e.g., in Corinth, only 8 km away) or elsewhere in Greece. The *Palaimonion* lamps would have been used as luminous offerings, as stated by Broneer (1977: 35): “Thus, it is in a true sense of the word a cult vessel, designed exclusively for the Sanctuary of Palaimon”. Formally, they are almost identical to those made in Cartagena.

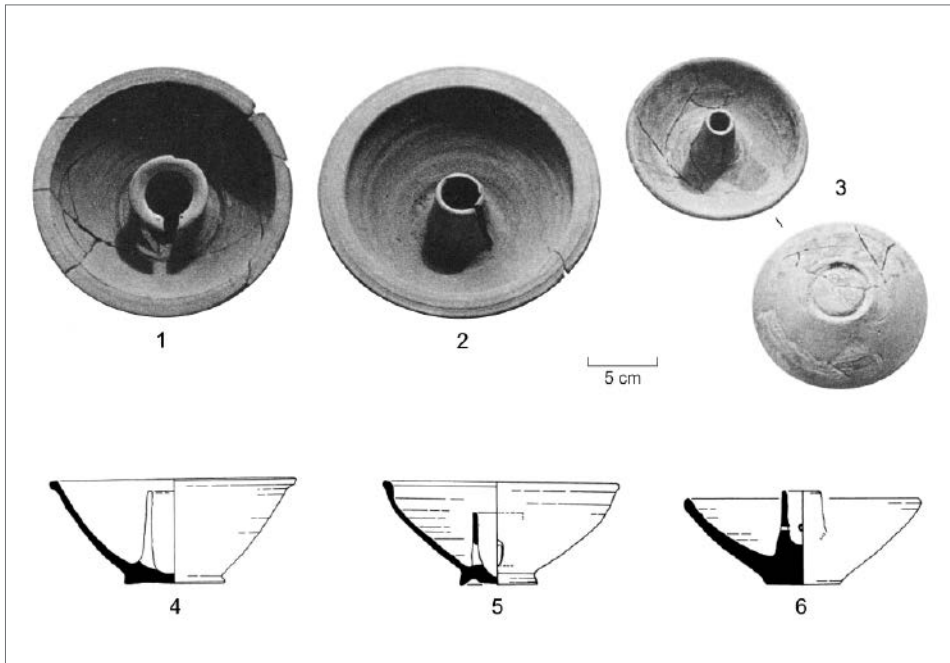


Fig. 5. *Palaimonion* lamps from Isthmia in Greece: 1–2 – Broneer A1 and A2 types (Broneer 1977: Pls 22,1115 and 1207); 3 – Broneer B2 type, upper part and base (Broneer 1977: Pl. 24,2083); 4 – Type A (Gebhard, Hemans, and Hayes 1998: Fig. 16, No. 29); 5 – indeterminate type (Gebhard, Hemans, and Hayes 1998: Fig. 16, No. 40); 6 – Type A-5b (Gebhard, Hemans, and Hayes 1998: Fig. 17, No. 41)

CONCLUSION

Although direct links for the wheel-made lamps of Carthago Nova cannot be established, formal similarities with the Isthmian lamps prompt a rethinking of their purpose. A number of reasons now favor the claim that lamps of this kind may have been used in cult practices. First, the limited capacity and autonomy of the containers, which may suggest that they were meant as luminous offerings. Secondly, the absence of handles intimating little if any need for moving them around, as also in the case of the lamps from Palaimon (Broner 1977: 35–36). Finally, in Cartagena, the

high concentration of finds (more than 230 specimens) in the vicinity of such an important religious building as the temple of Augustus and the fact that they are also found inside the water sanctuary honoring Fortuna is a very clear sign pointing to a religious function. Lamps of this type have been documented in various urban contexts of the city, although in small quantities and interspersed with standard Italian and African imports (Quevedo 2015: 380–393), which could perhaps indicate their use in religious practices celebrated in private.

Alejandro Quevedo

<https://orcid.org/0000-0002-0645-4279>

Contract researcher

University of Murcia

Centre Camille Jullian associate collaborator

AixMarseilleUniv, CNRS, MCC, CCJ

Aix-en-Provence, France

aquevedosanchez@gmail.com

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