

Economy of Pottery Production: New Clues from Populonia

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The discovery of a missing handicraft district in Populonia used in the production of ceramics has changed the perception of the local pottery industry. In fact, the finds of pottery kilns were rare and rather random, except for the furnaces found in Vignale that produced bricks, common pottery and amphorae². Two ceramic furnaces were recognized in Pescinone Basso following the excavations for the construction of a pipeline and were dated to the mid-7th century BCE.³ Another kiln was reported at Podere S. Antonio⁴ and two others along the coast between Poggio delle Granate and Cala del Pozzino.⁵ Of doubtful interpretation is the furnace base discovered at the mouth of the Valgranita⁶ ditch, as well as the ovens of Madonna di Fucinaia, interpreted as furnaces for the fusion of copper, although the hypothesis that they could be used for pottery production.⁷



Fig. 1: Baratti Gulf with the archaeological sites mentioned.

The discovery of five spacers for firing ceramics, presented in this contribution, in the layers of an Etruscan house found in Baratti, allowed us to assume the presence on site of a ceramic workshop.⁸

Local production had been hypothesized for common pottery, jars with three blobs or three engraved lines under the rim,⁹ and for some cups of *Atelier des Petites Estampilles*.¹⁰ These assumptions had not been supported by the necessary evidence of finding either production indicators or by chemical analysis.

Based on this hypothesis, a study was launched to determine the local pottery production in Populonia, with special attention being paid to the Hellenistic period. The results of this investigation permitted the classification of a variety of pottery spacers found. Thanks to this study we have plausible affirmation of the existence of a local ceramic industry: typology and contextualization of the spacers allow us to hypothesize some of the different pottery classes manufactured in this area.

Populonia: New Discoveries on the Production of Ceramics

We obtained recent data on the pottery production of the Etruscan city thanks to the recent excavations carried out in the territory.

The emergency excavations following the flood which hit the Gulf of Baratti and Populonia on October 28, 2015, led us to discover a dwelling, so-called House of Seeds, perhaps related to the lower town of Populonia, or, anyhow, to living quarters close to the harbour district.¹¹ Four ring-shaped spacers and one bell-shaped spacer came from the excavation of the dwelling, dated between the 4th and the mid-3rd century BCE.¹²

Starting from 2012, the north-western sector of the Casone necropolis, occupied by tombs and industrial buildings, was the core of the archaeological researches. A second small group of ring spacers was found out in a layer of debris and materials dating back to the Hellenistic era and in deposit beds or land moved during the operations of recovery of the ancient iron slags carried out in the early 20th century.¹³

Lastly, a third and more substantial group of ring, bell and cylindrical-shaped spacers was recovered from the archaeological materials unearthed in Populonia, these have been stored in the warehouses of the former Soprintendenza Archeologia della Toscana.¹⁴

The Populonia Spacers: The Typology

The special purpose of spacers is strictly connected with the loading of the kiln. They were used to stack the pottery in columns and keep a constant gap, so as to ensure a consistent firing of the products.¹⁵ To this end, the spacers had different shapes, according to the type of pottery to fire, and they could feature vent openings, holes or cuts,



Fig. 2: Ring-shaped spacers from the House of Seeds

made before firing. The holes, round and sometimes irregular, were made on the body of the supports, while the cuts, triangular, rectangular or semi-circular, were made on the edges.¹⁶ Such expedients were essential to obtain a good outcome of the batch: from literary and iconographic sources, we know that accidents during the firing were rather frequent. For instance, we find a reference in the short poem “The Kiln” (*Vita Homeri Herodotea* 32) and the presence of prophylactic elements, like ithyphallic satyrs, in the depictions of scenes of ceramic firing.¹⁷

The typology selected for the Populonia spacers calls for a first division into groups, based on their shapes; within each group there is a variable number of types, separated according to their profile and section.

The first group includes the ring spacers, characterized by a short circular body and used to stack open-shape ceramics, with low or flared walls, like plates, cups and small cups.

- Type A: groove on the external face with rims projecting inside and flat stand (2 samples).
- Type B: groove on the external face with an enlarged upper rim projecting inside (3 samples).



Fig. 3: Bell-shaped spacer with vent devices from the House of Seeds.

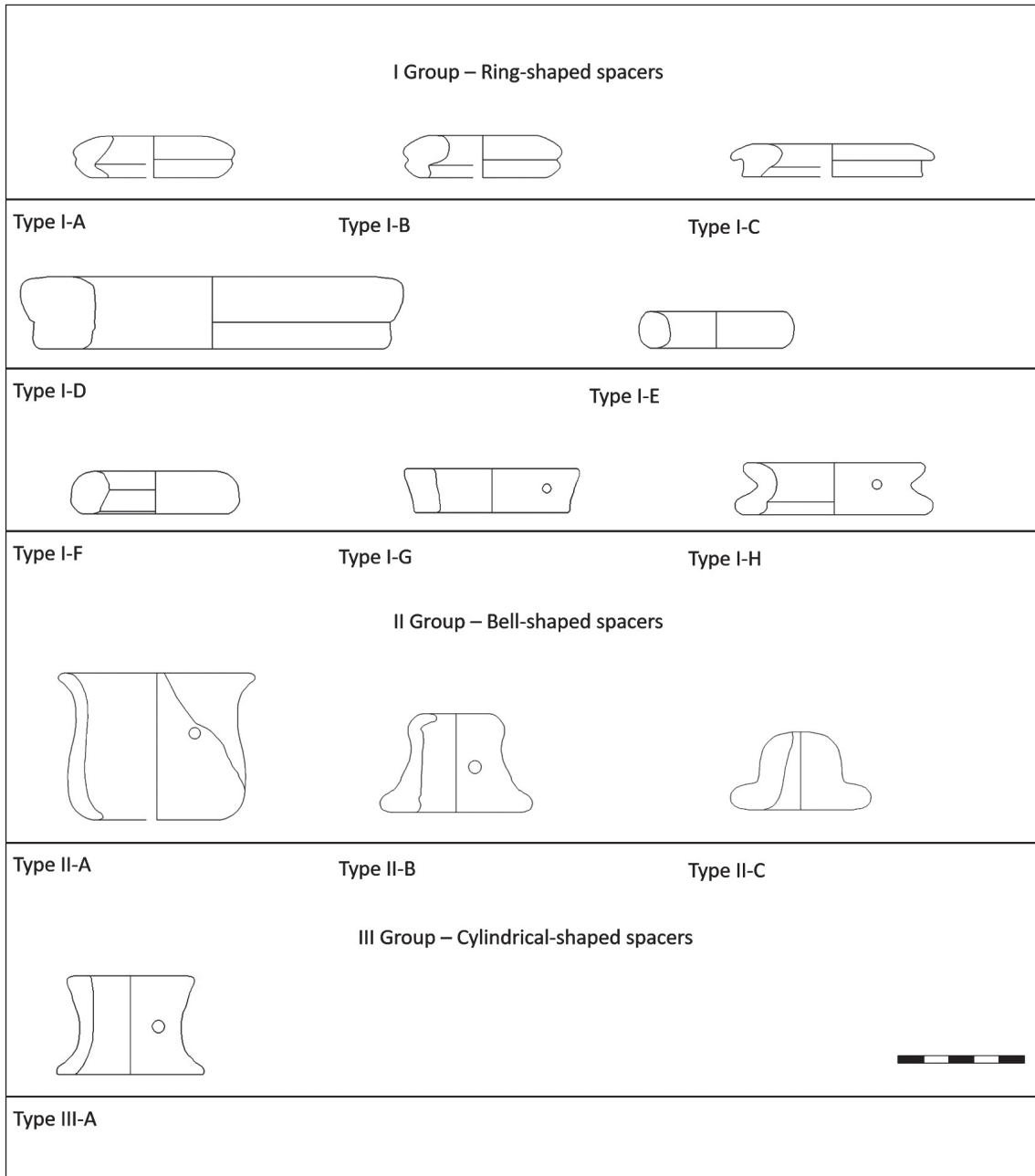


Fig. 4: Typology of Populonia spacers.

- Type C: enlarged upper rim projecting inside and splayed out on the outside; flat stand (1 sample).
- Type D: large size, with the upper rim projecting outside and straight internal face. Flat stand (1 sample).
- Type E: sub-circular section (5 samples).
- Type F: sub-circular section and oblique internal face (3 samples).
- Type G: trapezoidal section (1 sample).
- Type H: external convex profile and rims projecting outside (3 samples).

The second group includes the bell-shaped spacers, used to stack open artefacts with rather tall walls, like the *skyphoi*.

- Type A: “S” profile, with an outplayed upper rim and a lower rim folding inside (1 sample).
- Type B: upper rim folding inside; enlarged lower rim projecting outside and flat stand (1 sample).
- Type C: slightly upper rim and enlarged lower rim projecting outside (1 sample).
- The third group includes those spacers characterized by a cylindrical or sub-cylindrical body, used to support vessels, either apodal with a convex bottom or with a tip, and stack open-shape pottery (*skyphoi*).
- Type A: Cylinder with a tapered body in the centre (1 sample).

Spacers, Ceramics and Waste: New Acquisitions and Working Assumptions

The spacers from Populonia are mainly ring-shaped, particularly attested those with a sub-circular section. Easy to shape and strong, rather small (diameter between 6 cm and 8.4 cm), they are made of purified clay spun on the lathe and can be compared with spacers attested in northern Etruria.¹⁸ Among the rings, the type I-D is very large (diameter 15.4 cm) and has a coarse ceramic mix rich in inclusions. It was probably destined to the firing of amphorae, as it seems by the comparison with spacers coming from the Mazzanta area in Rosignano Marittimo.¹⁹

The excavation of the House of Seeds was crucial for the determination of Populonia local productions. The knowledge of the finding context enables us to read the archaeological data provided by the spacers, with the data provided by the materials found in combination with them.

In fact, a large amount of pottery dated between the end of the 4th century and the early 3rd century BCE. comes from the excavation: black-glazed and overpainted pottery; ceramics from the *Atelier des Petites Estampilles*; Greek-Italic amphorae; small jugs and *Genucilia* plates.²⁰ Among them, some fragments of *Genucilia* show a reddened paint and a burned ceramic body, typical feature of a bad firing process. The same features were also recognized on black-glazed ceramic fragments and pottery of the *Atelier des Petites Estampilles*.

Researchers also found sherds of over-fired pottery, and in particular, a bottom fragment with a ring base shows a grey-green colouring of the ceramic body, the deformation of the body and the surface scarred by tiny bubbles, signs caused by an excessive firing, either in terms of time or of acceptable temperature.

The badly-fired pottery shreds and the spacers, some of which feature vent openings, particularly suited for firing in reducing atmosphere, hence for black-glazed pottery, black figures, and red figures, allows us to assume a local production of those types of pottery. In order to clarify this issue, the spacers and some of the badly fired ceramic fragments will undergo archaeometric analyses for the characterization of the clay and determination of its origin.

In the current situation of the researches on the Populonia local production, the excavation of the House of the Seeds represents a turning point. The discovery of spacers, also a local product, the result of “craft secrets” of individual craftsmen, in a well-defined context, proves the activity of one or more workshops that the archaeological excavations did not find, although their existence is clearly confirmed by the relevant production tools.

Notes

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² Giorgi et al. 2009, 213–214.

³ Fedeli – Romualdi 1997.

⁴ Fedeli 1983, 418, nn. 329–330; Botarelli 2004, 229.

⁵ Fedeli 1983, 393, n. 284.

⁶ Isola 2006, 264–265.

⁷ Sperl 1981.

⁸ Baratti – Megale 2017, 58; Fusi 2017, 70–71.

⁹ Shepherd 1992, 163–165.

¹⁰ Romualdi 1992, 123.

¹¹ Baratti – Megale 2017, 58; Megale – Baratti 2016, 339–340.

¹² Fusi 2017, 70–71.

¹³ De Tommaso et al. 2013, 475–477.

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¹⁵ Cracolici 2003, 24.

¹⁶ Cuomo Di Caprio 2007, 528; Cracolici 2003, 29.

¹⁷ For example, *hydria* by the *Leagros Group* preserved in Munich (Staatliche Antikensammlung, Museum Antiker Kleinkunst, n. 1717; see Vidale 2002, 266–267) and *pinax* from Pentheskoufia (fragments F683+757+822+829; Vidale 2002, 83).

¹⁸ Cherubini – Del Rio 1995.

¹⁹ Cherubini – Del Rio 1995, 372.

²⁰ Megale – Baratti 2016, 339–340.

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Fig. 1–4: by author.

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