

Roman Monolithic Fountains and Thasian Marble

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ROMAN MONOLITHIC FOUNTAINS AND THASIAN MARBLE

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Abstract

A group of four marble fountain spouts in a storeroom in the Vatican Museums appeared to be made of dolomitic marble from Thasos. Analysis of the marble with paramagnetic resonance spectroscopy confirmed this identification. In spite of differences, all four pieces seem to be produced by the same workshop, which can be called the Vatican Fountain Workshop. Examples of this type of fountain spout, which have water stairs on four sides and were intended to be placed in the center of a pool, are found scattered throughout the western Roman Empire. One example in Pula, Croatia is clearly a product of the Vatican workshop and appears to be made of Thasian marble. Most surviving monolithic fountain spouts appear to date from the second century, but the type clearly underwent a rapid development from simple to richly decorated forms during the course of the last third of the first century CE. The Vatican workshop evidently specialized in relatively simple cubic forms. Although the workshop favored Thasian marble and included at least one sculptor from Thasos, it was based in Rome. It also may have produced statues of the sleeping Ariadne in dolomitic Thasian marble for fountains.

Keywords

EPR, exportation, sculptors

Methodology

Four possible Thasian marble fountains in the Magazzino ex-dei Ponteggi of the Vatican Museums were identified by eye on the basis of their coarse grain, absence of gray marks, and glittering grains. For verification, chip samples were taken and analyzed at the Istituto di Struttura della Materia, Consiglio Nazionale delle Ricerche, Roma, making use of magnetic resonance spectrography (EPR) to determine if they were dolomite or calcite. As is now widely accepted, the Cape Vathy/Saliari Area on Thasos was the only source of pure white, coarse-grain dolomitic marble for sculptural purposes during antiquity. All four



Fig. 1. Pompeii, House of Octavius Quartio, Fountain in the Euripus, 62-79 CE. (photo: Rosyfingereddawn img 2249)

of the Vatican samples proved to dolomitic (Table I), and hence the marble came from Thasos. Another candidate in Pula, Croatia could not be sampled, but its similarities in type, style, and macroscopic qualities of the marble leave little doubt that it is Thasian marble and was produced by a sculptor responsible for at least one of the Vatican fountains.

Description, development, chronology, and material of the fountains

Pompeii and Herculaneum preserve a great variety of fountains and other water displays.¹ Most of them are basically niches, evoking caves of the nymphs, but a novelty emerged not long before the eruption of Vesuvius in 79 CE: the free-standing fountain with water-stairs on four sides. Two examples have been found at Pompeii; one is pyramidal and the other basically cubic. The House of Octavius Quartio (formerly known as the House of Loreius Tiburtinus), presents the cubic type: the fountain forms a boxy island in a large water tank (Fig. 1).² Water emerged from an opening on top and was collected in a pool on the

1 NEUERBURG 1965.

2 GALLIAZZO 1979, 60, pl. 6, fig. 5; LAVAGNE 1998, 280, fig. 12.



Fig. 2. Fountain, unknown coarse-grained marble, 2nd century, Lambaesis, Museum



Fig. 3. Fountain, marble, 2nd century, Pula (photo: P. Blanc)

upper platform. It then spilled down stairs on all four sides into a surrounding pool. The fountain is built of masonry and jacketed with marble. The House of Apollo (VI.7.23) formerly had a small eight-sided pyramid with steps on four sides, again built of masonry jacketed with marble and located in the center of a pool.³

In the period after the eruption of Vesuvius, the spout or upper unit of this kind of fountain began at times to be made of a single block of marble. The spout

3 House of Apollo, Pompeii, also called the House of Herenuleius Communis (VI, 7, 23); there the pyramid is 8-sided; LAVAGNE 1998, 280, fig. 14; see also <http://pompeiiinpictures.com/pompeiiinpictures/R6/6%2007%2023%20p3.htm>.



Fig. 4. Fountain with incised diamonds, fine-grained marble, 2nd century, Cherchel, New Museum

could take the form of a four-sided stepped pyramid, as in the 3rd century Domus dei Pesci at Ostia.⁴ In other cases, the spout could take a cubic form, like that of the House of Octavius Quartio. In a very simple example in Lambaesis, Algeria (Fig. 2), the stairs have been retracted into the block, perhaps for ease of carving and efficient use of the marble block. Lambaesis lies on the southern frontier of ancient Numidia and was founded by Hadrian between 123 and 129. Another example in Pula, Istria (northern Croatia) presents the same cubic outer contours, but the staircases have become semicircular, and the waterspout at the top center has taken the form of the shoulder and rim of a jar (an *olla* or perhaps a *crater*) (Fig. 3).⁵ In another Algerian example in Cherchel, ancient Caesarea Mauretaniae, the two types seem to be mixed (Fig. 4)⁶; the block is a low truncated pyramid, but, like the cubic type, it has a pool on top.

While the examples in Lambaesis (Fig. 2), Pula (Fig. 3), and Ostia show that relatively simple and functional fountains continued to be produced through the second and into the third century, ornamental touches and illusionistic effects also proliferated. In the fountain in Cherchel (Fig. 4), diamonds are incised on the sides, and a cockleshell tops each stairway so that the sea creature appears to be the source for the water flowing down the stairs (Fig. 4). A cockleshell topping the stairs became a popular motif; it appears in a fountain in the Vatican

4 The pyramid is mounted on top of a cube of masonry in the center of a pool, all jacketed with marble: GALLIAZZO 1979, 64; <http://www.ostia-antica.org/regio4/3/3-3.htm>.

5 Kindly called to our attention by Philippe Blanc.

6 Found in an „agricultural establishment“ near Cherchel: LASSUS 1957, 132, fig. 7; LAVAGNE 1998, 281.



Fig. 5. Fountain with tapering stairs, dolomitic marble from Thasos, late first or second century, Musei Vaticani, MV 1110



Fig. 6a, 6b. Fountain with Medusa heads and a sleeping nymph, dolomitic marble from Thasos, late first or second century, Musei Vaticani, MV 7523

(Fig. 5),⁷ which returns to the basic cubic shape (the sides of the block are vertical). The sides of the stairs, however, slope to give the illusion of that they project.

The marble of the Algerian and Istrian fountains is unknown, but the Vatican fountain appears to be coarse-grained Thasian marble. Analysis with EPR now shows that this and three other coarse-grained fountains in the Vatican are, in fact, dolomitic marble, and consequently from the Cape Vathy area on Thasos (Table 1).

Most of the Thasian group are the cubic type. The masterpiece of the group was larger and more elaborate (Fig. 6).⁸ The waterspout on top is again a storage jar, and on two sides the stairs project out from the cubic body of the fountain, while on the other two sides the stairs are narrower and do not project. Decoration is also richer, and mythological and animal figures make their appearance. At the top of each projecting stairway lies a sleeping nymph, and at the top of the minor stairs are heads of the Medusa. Water spouted from the Medusa's mouths and from the nymphs' jars. The corners of the block are embellished with the heads of sacrificial rams, as on the corners of Roman altars.

A similar fountain is preserved in the Temple of Roma and Augustus in Pula, Croatia (Fig. 7). In this fountain a satyr sleeps at the top of one of the major stairs, which does not project. On the opposite side of the Pula fountain is a sleeping nymph (Fig. 7c), and in this case there originally was a projecting stairway, which was later cut away. This side also has a new decorative novelty; boys hold water jars over their shoulder, and the jars serve as water spouts. The cockleshell returns over the minor stairs. The interior of the Pula piece has been entirely hollowed out. By eye, this fountain appears to be Thasian marble, but we were not allowed to take a sample. In any case, the form, the workmanship, and the visual appearance of the marble make it clear that the fountain in Pula is a product exported by the workshop in Rome.

Back in Rome, the same workshop took up the idea of the waterboy of the Pula fountain in bolder form; in another Thasian marble fountain in the Vatican, each corner is occupied by a high relief figure of a satyr, who pours from a wine jar (Fig. 8).⁹ The fountain is probably no earlier than the Hadrianic period, 117-138 CE. The satyr stands on a column base, and profiled sculpture bases seem not to appear before Hadrianic times. On the other

7 Inv. 1110, Magazzino ex Ponteggi: AMELUNG 1903, pl. 29, n. 192c; GALLIAZZO 1979, 73, fig. 16; WALKER 1985; LAVAGNE 1998, 274, fig. 3.

8 AMELUNG 1903, pl. 29, nn. 170-170a; GALLIAZZO 1979, 73-74, fig. 20.

9 GALLIAZZO 1979, 73, fig. 17; LAVAGNE 1998, 275, fig. 8.



Fig. 7 a-c. Fountain with a sleeping nymph, sleeping satyr, and water boys; probably Thasian marble, late first or second century, Pula, Temple of Roma and Augustus



Fig. 8. Fountain with waterboys in the corners, dolomitic marble from Thasos, ca. 125-150, Musei Vaticani, MV 649

hand, the absence of drillwork suggests that the fountain is not likely to be much later than Hadrianic either.

Cubic and pyramidal designs were not the only types of “monolithic island fountain;” polygonal and curvilinear designs were an alternative available since the late first century at least. In the *Domus Flavia*, the Palace of Domitian (81-97 CE), an island of niches arises out of a pool, and both pool and island have an oval plan (Fig. 9)¹⁰. The niched oval island was built of brickwork and jacketed with marble. A number of marble stepped waterspouts share some of this complexity.

The last of the Thasian marble fountains in the Vatican takes up a polygonal form with curvilinear sectors; the corners – or rather the intervals between the four stairways – become broad concavities decorated with masks of river gods (Fig. 10).¹¹ In plan the fountain is an octagon with alternating straight and curved sides. Although very damaged by old restorations, the head of river gods have an impressively Hellenistic character, and again the absence of drillwork indicates a date in or before Hadrianic times.

The last fountain in the Vatican storeroom, takes the polygonal idea even further: it has 14 sides. It also returns to the idea of having an urn at the top center. Its main sculptural decorations are the reliefs between the stairs, which depict the wanderings of Ulysses (Fig. 11).¹²

10 NEUERBURG 1965, 221-222, figs. 77-78.

11 GALLIAZZO 1979, 78, fig. 24.

12 AMELUNG 1903, pl. 29, 170-171a; figures: fisherman.

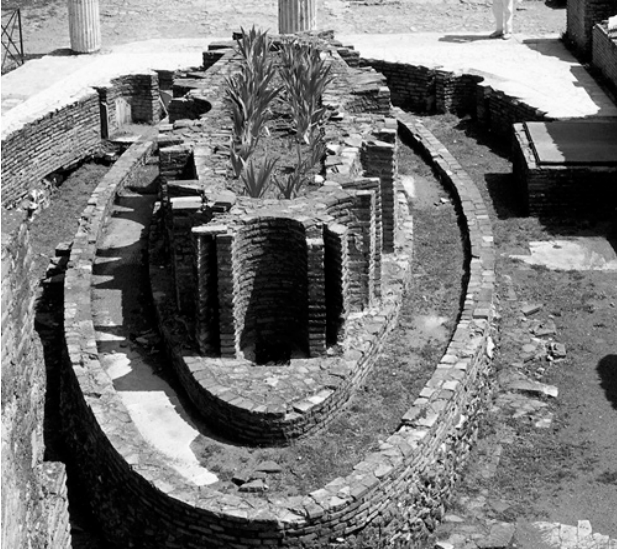


Fig. 9. Oval fountain, brick faced concrete, Domus Flavia, Rome, ca. 90 CE (photo: girlstalkinmack.com)



Fig. 11. Fountain with wanderings of Ulysses, fine-grained (Carrara?) marble, ca. 100-150, Musei Vaticani



Fig. 10. Fountain with heads of river gods, dolomitic marble from Thasos, ca. 90-140, Musei Vaticani, MV 1134



This fountain, however, is a fine-grained marble that is certainly not from Thasos, and in spite of the common features, such as the urn, the steps, and the cockle shells, it seems to be the work of a competitor to the Vatican Fountain Workshop.

Many other monolithic fountains with water stairs are scattered around Rome, Ostia, and north Italy, and Rome is regarded as the center production and diffusion of this type of artifact.¹³ From photographs, none of the other examples seem to be closely related to the products of the Vatican Fountain Workshop, as described above, although inspection and analysis of the marble of the others may provide surprises. Two fountains in the British Museum can be included among the Italian examples.¹⁴ A recently discovered fountain in a villa excavated at Anagnina, now in the Small Cloister of the Museo Nazionale Romano, does not appear macroscopically to be in Thasian marble. A magnificent fountain in Tarragona¹⁵ is in a beautiful, fine-grained white marble (Fig. 12). Two examples in southern Gaul and an example from Avenches,

man seated on rock, standing girl with bucket, (side against wall), Pan, Odysseus in ship, 3 Sirens; jar in center; GALLIAZZO 1979, 63, n. 47, 78; LAVAGNE 1998, 275, fig. 5.

13 GALLIAZZO 1979; LAVAGNE 1998; CILIBERTO 2010; RINALDI 2015.

14 From the Adams Collection, Rome and the Townley Collection: BM 1786,0526.2; SMITH 1901, p. 409, fig. 67, cat. no. 2536; REINACH 1912, pl. 517, 1.

15 LAVAGNE 1998, 276, fig. 7.



Fig. 12. Fountain with Cupids, fine-grained marble, late first or early second century, Tarragona, Archaeological Museum



Fig. 13. Sleeping Satyr, fountain figure, dolomitic marble from Thasos, ca.120-150, Musei Vaticani MV 7254

Switzerland¹⁶ may have better chances of belonging to the Vatican group. A four-sided stepped pyramidal fountain is placed in the center of a courtyard adjoining the Octagon of St. Paul in Philippi.¹⁷ The fountain could well have been imported from the West but has no apparent relationship to the Vatican group.

The picture that emerges from this review of monolithic marble fountains of the span of about 70-140 CE is one of a rapidly evolving and diversified decorative tradition. Clients and workshops were competing to outdo one-another in luxurious novelties, but simple and presumably economical models also survived. The workshop using Thasian marble seems to have specialized in the relatively old-fashioned cubic fountain, but they gave this type a series of decorative variations that made no two pieces the same.



Fig. 14. Sleeping Satyr, fountain figure, probably Thasian marble, ca.120-140. From the Agora, Thasos, Thasos, Museum

Thasian marble and Thasian workmanship

The importance of Thasian marble for the “Vatican Fountain Workshop” raises the question of whether there was a special relationship between its sculptors and Thasos. Thasian marble is generally rare at Rome; being used for roughly 4% of Rome’s figural sculptures.¹⁸ The preponderance of Thasian marble in the fountains examined is undoubtedly significant. It could be a preference based on practical considerations; dolomitic marble is both more resistant to chemical action and physically harder than the usual calcitic marble. This resistance may have been considered valuable in objects exposed frequently or constantly to running water.

In spite of the absence of similar fountains in northern Greece, there are stylistic reasons to believe that the leading sculptor of the Vatican Fountain Workshop had a personal connection to Thasos. A large-scale reclining satyr, also in the Vatican, was carved in dolomitic marble from Thasos, as Donato Attanasio has previously shown with EPR (Fig. 13), and it was almost certainly carved by a sculptor from Thasos.¹⁹ A very similar satyr on Thasos also appears to be the island’s dolomitic marble (Fig. 14).²⁰ Both were fountain figures with an opening for a water jet. Reclining or sleeping satyrs (rather than *sileni*) are rare, and these Thasian statues of satyrs have much in common with the miniature satyr carved on the fountain in Pula (Fig. 7a). Both the pose and the softly lumpy modeling of anatomy and rock are similar. Since the relationships in theme and style between the Thasian statue of a satyr in Rome and the miniature satyr on the Thasian marble fountain in Pula (but produced in Rome) are so close, it seems likely that the intense use of Thasian marble in the Vatican Fountain Workshop represents the presence at Rome of a sculptor from Thasos.

16 LAVAGNE 1998, 271-274, fig. 1-2.

17 KOUKOULI-CHRYSANTHAKI, BAKIRTZIS 2000, 50, fig. 41; CILIBERTO 2010, 102.

18 HERRMANN *et al.* 2014.

19 HERRMANN *et al.* 2015, 157, fig. 6.

20 HERRMANN *et al.* 2015, 157, fig. 5.

Vatican #	Title/description
MV 649	Fountain with water stairs and waterboys ²¹
MV 1110	Simple cubic fountain with water stairs ²²
MV 1134	Fountain with water stair and masks, addition?
MV 1134	Fountain with water stair and masks, central block ²³
MV 1135	Fountain with sleeping nymphs ²⁴
MV 7253	Statue of Ariadne sleeping, bust and head ²⁵

Table 1.
Samples analyzed with EPR at the ISM-CNR: all proved to be dolomite and therefore marble from the Cape Vathy/Saliara area, Thasos

Statues in Thasian dolomite of Ariadne sleeping

Kept in the same storeroom with the small marble fountain spouts was the statue of a sleeping female figure with a hole for a water jet MV 7253 (Fig. 15). The upper part of this sculpture too appeared to be Thasian marble, and on analysis with EPR it proved to be dolomite and therefore Thasian (Table I). The legs are a restoration in a different marble. The distinctive Dionysiac headband identifies the figure as Ariadne, who cushions her head with her right hand placed on her left shoulder. Another head of this type in the Vatican (Magazzino delle Corazze section T, MV 4339) also appears to be Thasian (Fig. 16).²⁶ This type of Ariadne seems infrequent, and since Thasian marble is rare in sculpture in Rome, the two Thasian examples of the type suggest that the choice of this marble was not coincidental. Again the hard stone may have been considered especially suitable for fountains. The sculptors of the Ariadnes might also have been associated with the Vatican Fountain Workshop, since a sleeping nymph or Ariadne in this pose appears on two of the Thasian fountains (Figs. 6, 7). The technique of the Ariadnes also shows an affinity with other productions in Thasian marble; like most sculptures on Thasos itself, the Ariadnes make minimal use of drillwork. It seems possible that one or both of the sculptors of the Ariadnes were migrants from Thasos or northern Greece. The much larger Ariadne statues, however, are more canonical productions than the figures on the fountains. They must have been based on a famous stock figure available in Rome, and their carvers were apparently influenced by the Classicizing criteria governing that kind of replication of famous mythological prototypes.



Fig. 15. Head and torso of Ariadne sleeping, fountain figure, dolomitic marble from Thasos, 100-150, Musei Vaticani, MV 7253



Fig. 16. Head of Ariadne sleeping, probably Thasian marble, 100-150, Musei Vaticani, MV 4339

21 H 37.5 cm, Lower D 39.8; lower W 44 cm.

22 H 19.8 cm; lower D 31.5 (probably ca. 36 originally).

23 H 40.5, L 61, W 35.5 cm.

24 H 19.8 cm; lower D 31.5 (probably ca 36 originally).

25 Body and head Thasian; draped legs fine-grained marble. AMELUNG 1903, 848, cat. No. 100, pl. 101.

26 For another fragmentary example, see AMELUNG 1903, 862, cat. no. 157, pl. 107.

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BIBLIOGRAPHY

- AMELUNG W. 1903: *Skulpturen des Vaticanischen Museums*, I, Berlin.
- CILIBERTO F. 2010: "Il piacere dell'acqua: le fontane a scaletta di Aquileia", *Arredi di lusso in età romana. Marmi e bronzi nelle case della Cisalpina*, part 2, *LANX Rivista della Scuola di Specializzazione in Archeologia*, Università degli Studi di Milano 6, 100-149.
- GALLIAZZO V. 1979: "Significato e funzione della fontanella „a scalette d'acqua“ nella casa romana ed un singolare frammento al Museo Civico di Feltre," *Atti della Accademia roveretana degli agiati. Contributi della classe di scienze umane, lettere ed arti* 19, 49-82.
- HERRMANN J., ATTANASIO D., VAN DEN HOEK A. 2014: "Marble from the fringes and sculpture at Rome: the case of Thasian marble in the Musei Comunali," *XVIII CIAC: Centre and periphery in the ancient world*, 11-16.
- HERRMANN J., ATTANASIO D., VAN DEN HOEK A. 2015: "Thasian Exports of Prefabricated Statuettes," in *ASMOSIA X*, 155-161.
- KOUKOULI-CHRYSANTHAKI C., BAKIRTZIS C. 2000: *Philippi*, Athens.
- LASSUS J. 1957: "L'archéologie algérienne en 1956," *Libyca* 5, 123-152.
- LAVAGNE H. 1998: "*Fonticuli*. Deux fontaines à escaliers d'eau en Narbonnaise. Beaurepaire (Isère) et Nissan-les-Ensérune (Hérault)," *Revue des Études Anciennes* 100.1, 269-287.
- NEUERBURG N. 1965: *L'architettura delle fontane e dei ninfei nell'Italia antica*, Napoli.
- REINACH S. 1912: *Répertoire de Reliefs Grecs et Romains*, 2: Afrique – Iles Britanniques, Paris.
- RINALDI F. 2015: Fontane, fontanelle a scaletta, in P. FORTINI (ed.): *La rampa imperiale: scavi e restauri tra foro romano e palatino*, Milan, cat. Nos. 10-12, 119-123.
- SMITH, A. H. 1901: *Sculpture in the Department of Greek and Roman Antiquities*, British Museum, vol. 3, London.