

# Early Byzantine vases carved in Prokonnesian marble from ancient Halasarna (Kos Island, Dodecanese, Greece)



**Abstract:** The paper stems from archaeometric provenance studies, which proved that some vases from excavations at Kardamaina, ancient Halasarna, of Kos had been carved in Prokonnesian marble. The items under consideration are four-handled bowls whose grips are decorated with incised motifs. The proven use of Prokonnesian marble not only for architectural members, but also for smaller artifacts indicates that vases were among the Prokonnesian marble products imported to Kos from Constantinopolitan workshops. These imports are dated to the 5th and 6th centuries AD, a time of intense building activity not only in the town of Kos, but also in the island's seaside settlements (Kardamaina, Mastichari, Antimacheia, Kefalos, etc.). It remains, however, unclear if these vases were imported finished or semi-finished from Prokonnesos, together with architectural members, aboard stone-carrying ships sailing across the Mediterranean and the Black Sea.

**Keywords:** Halasarna of Kos, Prokonnesos, marble, quarries, bowls

## INTRODUCTION

Macroscopic observation led to the view that fine-quality marble quarried in Kos was used for Koan vases throughout Antiquity (Poupaki 2011a: 28, note 48), and therefore these stone vessels were products of Koan marble-carving sculpture workshops. This assumption was based on visual observation and on the fact that sev-

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eral other Koan rock types were used for carving vessels. However, archaeometric analysis of marble samples collected from

vases found in Halasarna (Poupaki 2011a: Nos 18–22) has shown that they were in fact carved in Prokonnesian marble.

## **ACTIVITY OF PROKONNESIAN QUARRIES: A HISTORICAL OUTLINE**

The beginnings of marble exploitation on Marmara Island (ancient Prokonnesos) in the Marmara Sea have generally been traced back to the Archaic period. Indeed, the earliest sculptures considered to have been carved in Prokonnesian marble are the torsos of Kore (No. MΘ 929) and Kouros (No. MΘ 930) from the Rhaidestos collection in the Archaeological Museum of Thessaloniki, both dated to the Archaic period (Chatzinikolaou 2016: 177). Isotopic analysis of marble samples from the grave stele of Phanodikos from Sigeion (550–540 BC), now in the British Museum (Walker 1985: 58), proved that grave monuments in the Thracian Peninsula and northern Asia Minor had been carved in Prokonnesian marble since Archaic times (Kokkorou-Alevras et al. 2005: 161–162). Additionally, the building material of the Archaic temple of Artemis in Ephesos has also been attributed to Prokonnesos (Walker 1985: 58, note 4).

During the Classical period, Prokonnesian marble continued to be used for sculpture (Kokkorou-Alevras et al. 2005: 164–165; Chatzinikolaou 2016: 177–178). Its use for architectural purposes outside the island, formerly considered uncertain, has been confirmed with archaeometric methods at the Maussoleion of Halikarnassos (Walker and Matthews 1997), although it should be reexamined further.

In Hellenistic times, the Prokonnesian quarries were taken over by the rulers of Pergamon, the Attalids, who employed the marble widely not only for the erection of monuments in Pergamon, but also for edifices erected elsewhere under their patronage (Hoepfner 1997: 25–26, notes 20–21; Cramer 1998; Cramer, Germann, and Heilmeyer 2002; Cramer 2004; Poupaki 2011b/A: 204–205).

During the Roman era, the quarries of Prokonnesos produced huge quantities of marble subsequently distributed across the Empire. For more than three centuries (from the 1st to the 3rd century AD), the Roman imperial marble trade guaranteed the supply of the best-quality building material, and marble, a symbol of prosperity and wealth, was shipped throughout the Empire (Kokkorou-Alevras et al. 2005: 167–173). However, the distribution of marble in the Roman Empire cannot only be seen as “part of a cargo of booty or tribute”, but also as “the transport of imperial-ly owned products for imperial use”, and as the usual “trade in goods that were made available to the general public” (Strauss 2006: 167). That is why the low-priced Prokonnesian marble was largely exported to the Italian Peninsula, as indicated in Diocletian’s Edict on Maximum Prices (Lauffer 1971; Giacchero 1974). Following a radical reorganization of the quarries in the Flavian period, Prokonnesian products

started to rapidly dominate over Carrara and Pentelic ones in Asia Minor, and in the Imperial period they circulated widely throughout the empire (Waelkens, De Paepe, and Moens 1988: 20; 1990: note 81; Attanasio 2003: 21; Kokkorou-Alevras et al. 2005: 168; Fischer 2007: 254). These items were stored in large quantities in special deposits on Prokonnesos, as well as in *stationes marmorum* (Hirt 2010: 344–356; Russell 2013: 51–52) at the most important harbor sites of the Empire, for instance Ephesos (Bouras 2011) and Ostia (Rickman 2002; Pensabene 2007; Keay 2012). They were shipped, mainly in unfinished state, to the remotest parts of the Empire.

By the end of the 3rd century AD, the financial crisis brought about a general decline in the marble industry throughout the Empire. However, it did not seem to affect the marble quarries of Prokonnesos. They probably remained under imperial management, as in the age of Hadrian, to whom the Prokonnesian quarries had belonged directly. The establishment of Tetrarchic seats in Nikomedia and later in Constantinople proved to be a crucial

stimulator for the activity of the Prokonnesian quarries. Indeed, in the 5th and 6th centuries AD Prokonnesos became the principal source of building material used in the entire Byzantine Empire, as proven mainly by the archaeological research of Nuşin Asgari in the Prokonnesian quarries, where various products have been found in situ (Asgari 1978; 1990; 1994).<sup>1</sup> Moreover, the increased circulation of Prokonnesian marble products in the Mediterranean during that period was related to the interference of Imperial authorities, whether secular or ecclesiastical, in their distribution. Theodosius and Justinian imposed special laws to ensure constant supply of quarry products of the island to the new capital following the Roman organizational model (Asgari and Drew-Bear 2002: 17–18). Inscriptions at several quarries of the island indicate that they belonged directly to monasteries, and that some of them provided the necessary material for specific buildings, including churches (Asgari and Drew-Bear 2002: Nos 7, 40). The Prokonnesian quarry products, some of which still remain in the ancient quarries, would be used for the erection of basilicas, whose architectural decoration was commissioned exclusively from these quarries. The fact that “this sort of marble was characterized by its availability, good quality, and low price” (Al-Bashaireh, Abudanah, and Driessen 2020: 25) explains why stone-carrying ships transporting Prokonnesian marble artifacts for Byzantine churches have been traced all over the Mediterranean. Numerous prefabricated architectural members, liturgical furnishings,



Fig. 1. Semi-carved four-handed bowl at Panormi, Prokonnesos Island (Photo Eir. Poupaki)

1 For a full discussion, see Kokkorou-Alevras et al. 2005: 173–181.

and sarcophagi can be seen nowadays in open-air museums of Prokonnesos (Asgari 1978; 1995). These products were the main cargo of stone-carrying ships crossing the Mediterranean<sup>2</sup> and the Black Sea (Beykan 1988; Carlson 2006). A huge variety of Prokonnesian semi-finished or complete architectural members has been revealed during underwater research at investigated shipwrecks discovered on major maritime transport routes of the Empire (Beykan 1988; Minchev 2012; Barsanti and Paribeni 2016; Marano 2016). In the times

of Theodosius and Justinian, professional quarrymen and stonemasons were officially forbidden to leave Prokonnesos to travel elsewhere (*Cod. Theod.* XI, 28.9; *Cod. Iust.*, *Corpus Iuris Civilis* II, 430 XIVII). However, it should be further examined whether they may have traveled after all, with official permission, to the final destinations of the marble cargoes, where they would have been able to imbue the sculptural works with a Constantinopolitan flavor and share their technical skills with other stone carvers.

## PROKONNESIAN MARBLE USE IN THE MANUFACTURE OF VASES: AN OVERVIEW

The use of Prokonnesian marble has thus far been attested mainly for architectural elements and sculptural decoration of secular and religious buildings, as well as for funerary monuments: tombstones and sarcophagi. There are rare mentions of use of Prokonnesian marble for minor objects, such as vases (Harrison 1986: 234; Asgari 1990: Fig. 10; Kokkorou-Alevras et al. 2005: 188, No. K. 25, Pl. 13β; Carlson 2006: Fig. 8), or for liturgical equipment, such as *mensae* (Asgari 1994: 104; Kokkorou-Alevras et al. 2005: 191, No. K. 61, Pl. 13β), and other related artifacts. Asgari (Asgari 1990: Fig. 10) published a photo showing a group of semi-carved mortars, *holmoi*, used for crushing cereals, found on Marmara Island and probably dated to the Late Roman or Byzantine period. An unfinished four-handled

bowl was found close to the modern marble workshop of Panormi [Fig. 1], and marble mortars of various shapes [Fig. 2] were also recorded by a team from the University of Athens during their visit to Marmara Island in 2003 (Kokkorou-Alevras et al. 2005: 182).

Vases in the shape of bowls were also produced in Prokonnesian quarries since the Hellenistic period, as attested by the discovery of a roughed-out four-handled bowl in the Kızılburun shipwreck south of Chios, dated to the 1st century BC (Carlson 2006: Fig. 8). These items also reached the Western provinces of the Empire in the Roman period, as corroborated by the discovery of several vases of Prokonnesian marble in the form of simple basins (used as *perirrhacteria* or *louteria*<sup>3</sup>). Other such finds are round tables of the 1st century AD at the House of

2 For the Adriatic, see Marano 2016.

3 For the use of these vases, see Poupaki 2002.

the Vettii in Pompeii (Fant et al. 2002), as well as bowls in the Roman oppidum of Bibracte in Burgundy, France (Verbrughe, Jaccottey, and Boyer 2019) and at the Şile shipwreck site in the Black Sea, dated to AD 100–125 (Beykan 1988: 127). Notably, the use of Prokonnesian marble for Roman funerary urns (containers for ashes of the deceased), like the ones from the Sedgwick Museum of Earth Sciences, was fairly rare (Watson 1916: 245).

From the early Byzantine period, however, known examples of vases carved in Prokonnesian marble are quite rare, too. An example is a plate from a Byzantine church in south Jordan (Al-Bashaireh, Abudanah, and Driessen 2020: No. 21), a region where Prokonnesian marble was otherwise widely used during the Roman and Byzantine periods (Al-Naddaf, Al-Bashaireh, and Al-Waked 2010: 76, 81).

### EARLY BYZANTINE VASES OF PROKONNESIAN MARBLE FROM HALASARNA

Thus far, identification of the marble used for making the vases mentioned above has been based only on visual

observation of the material, and specimens investigated using state-of-the-art archaeometric methods were few. Some



Fig. 2. Semi-carved mortars in the Palatia (Saraylar) open-air museum, Prokonnesos Island (Photo G. Kokkorou-Alevras)