

The Economy of the Ancient Pavements. Prices and Contracts of Marble Floors and Mosaics in the Ancient Greek World

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Introduction

This study aims to discuss some archaeological and epigraphic documents related to the prices, contracts and economy of flooring of the ancient Greek world. The analysis will focus on financial operations relating to marble floors registered in the building accounts of the Greek sanctuaries of the Classical and Hellenistic age. In particular, four main aspects of the documentation will be analyzed:

1. The prices of materials for the production of marble floors and mosaics.
2. The payment of craftsmen involved in the construction of marble floors and mosaics.
3. The relationships between craftsmen and buyers involved in the construction of marble floors.
4. The financing models related to the fabrication of mosaics and marble floor.

The information inferred from research, compared with the archaeological data, could provide an initial framework of the economic, financial and productive processes of the floors of the ancient Greek world.

Epigraphic Documentation

The data considered here comes from Eleusis, Delos and Epidauros, and is dated to the Classical and Hellenistic periods.¹

A building account from Eleusis, dated to the middle of the 4th century BC (*IG II²*, 1672), mentions the activity of five artisans (Table 1): Demetrios, Ergasios, Kyprios, Euarchos and Milakos, who were entrusted to extract 304 blocks of breccia-stone to cover the floor of the tower (στρώμα τῶι πύργωι) and courtyard (ἐδάφους τῆς αὐλῆς) for the price of 1 dr. for each extracted block (lines 48–50).

A description of the payment to the craftsman Neokleides from Kifissia follows. He was commissioned to pave the floor of the tower with 304 blocks (as mentioned above) at the price of 1 dr. for each piece set up (line 51). The craftsman is also mentioned in relation to the supply of 34 blocks of stone from Aegina (Αίγιναῖοι λίθοι), which were to be placed above the breccia blocks of the tower floor at the price of 1 dr. per block (lines 52–53).

In the following lines, Pistias from the demos of Sphettos and Douriktonides from the demos of Kolonos are mentioned, who each received 270 dr. to remove the breccia rubble (ἐξαγωγή τῶν λίθων) from the floor of the tower (lines 51–52).

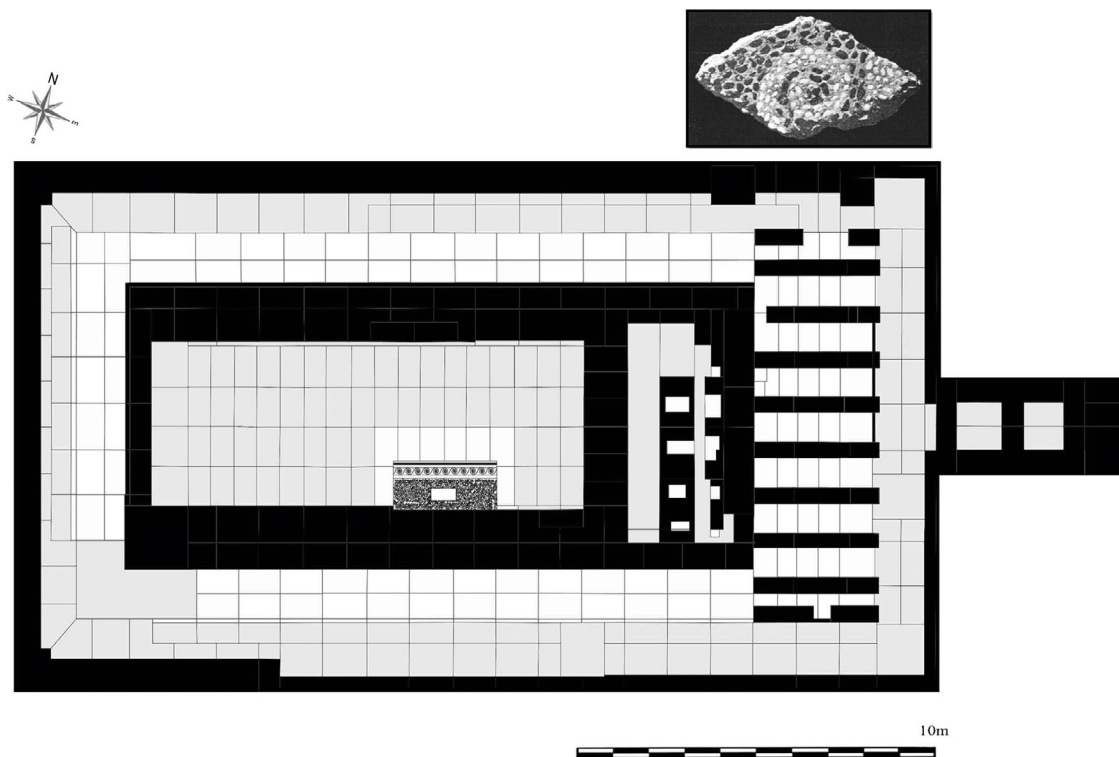


Fig. 1: Epidauros. Temple of Asklepios. Plan with mosaic.

The payments to Damasias, son of Kyragoras from Paros, who built the floor of the temple of Apollo in 297 BC, are registered at Delos (*IG XI*, 2 150 A, 1. 6–8).

The artisan Aristokles, who constructed the floor of the stoa of the Artemision for 36 dr., is also mentioned in the same document (*IG XI*, 2 199 A, 1. 81–82). Ten dr. out of 36 dr. were retained by the *hieropoioi* as a guarantee.

At the Asklepieion of Epidauros² important information is offered by the epigraphic documentation concerning the Aphrodision (or Artamition), the Asklepieion (fig. 1), and the Tholos (fig. 2). In this document (*IG IV*², 1 106), Damophilos, who supplied five paving slabs of mottled stone (λίθων ποικίλων) at the price of 14 dr. and 2 ob., is mentioned. (lines 96–98).

Additional information is provided by the *Rationes Aedificatorum* of the Temple of Asklepios (*IG IV*², 1 102). In this inscription the following craftsmen involved in the construction of the pavement for the building are documented (379–378 or 374–373 BC): Lysikrates, who was entrusted for transporting and assembling the poros blocks of the foundation floor (στοιβάν τῶι στρώματι) for 843 dr. and 2 ob. (lines 33–34); Mnasillos, for extracting and transporting blocks for the floor and for the ramp-pavement for 4.320 dr. (lines 40–41); Echetimos, for assembling the floor (στρῶσιν) for 759 dr. (lines 52–53); Kallis, for smoothing the floor of the pronaos and the interior of the temple (στρώματος τοῦ ἔνδοι καὶ τοῦ προδόμου) for 150 dr. (lines 70–71); and finally, Gorgias, for cleaning

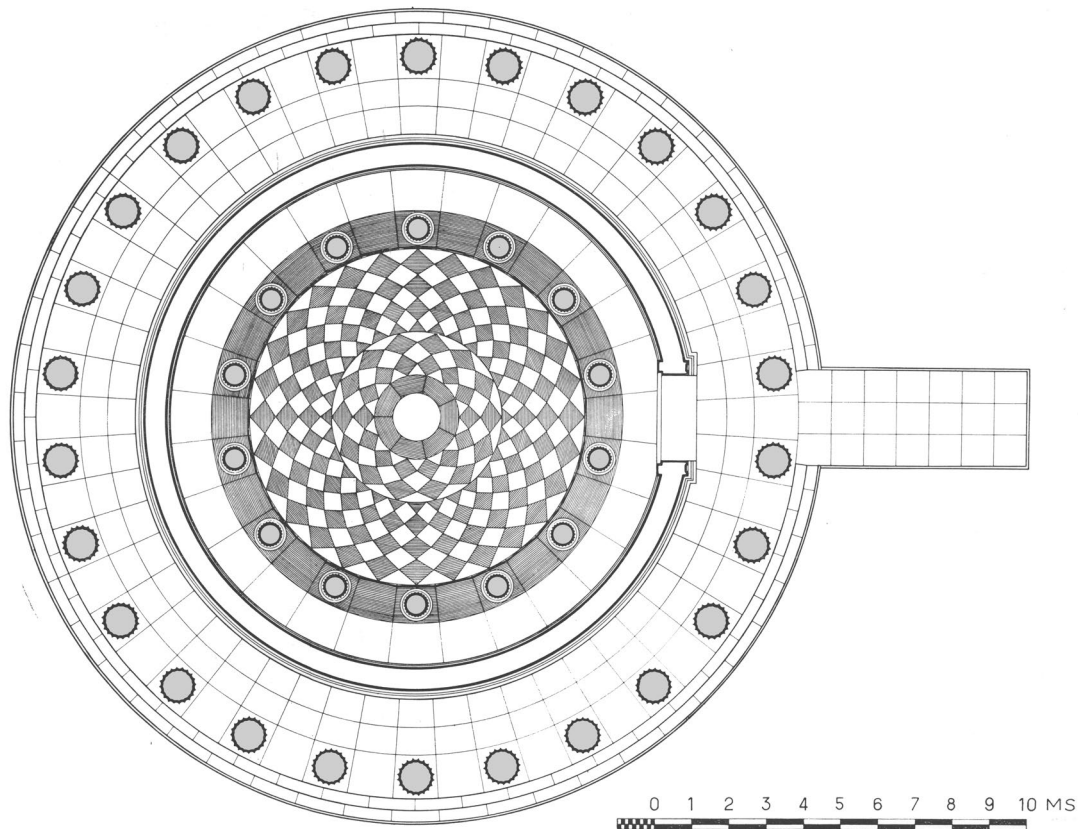


Fig. 2: Epidauros. Plan of Tholos.

the external floor (ἐπιξοῶν τοῦ στ [ρ] ὠματ [ος]) and the external walls of the sekos, for 821 dr. and 20 ob. (lines 84–86).

The craftsman Lakrines also appears in this document, elsewhere identified as the sponsor of Lysikrates and Mnasillos, as mentioned above. He was paid 11 dr. for providing stones for the treasury of the cella (BII, II. 243–244), which can be interpreted as the pebbles of the mosaic that covered the floor of *bothros*.³

The documentation provides a detailed picture of the fitting procedures, and of the expenditure (about 6.000 dr.) which *hieropoioi* and *epistates* considered for the construction of the temple floor. The data can be related, furthermore, to the materials used for the construction of the pavement: poros for foundation blocks; white limestone with red and gray inclusions (πικίλος λίθος) for floor coverings.

Financial operations related to the construction of floors can also be identified in the *Rationes Aedificatorum* (IG IV², 1 103) of the Tholos. The paving operations are registered in the final parts of the B-side and the C-side of the stele (years 27 and 28).

The ὠνήματα of the document show that the construction of the floor was entrusted to a number of contractors, who supplied, transported, and set a variable number of σελίδες. Each σελίς was formed by two blocks of limestone, at a cost of 260 or 130 dr. for each block.

The inscription of the B-side is interrupted at the base of the stele, where 33 of the 52 *σελίδες* are mentioned, and continued on the C-side, which is almost illegible. Roux suggests the payment of the pavement of cella was recorded, which consists of a chessboard pattern of Pentelic marble and black stone probably from Argos.⁴

Craftsman	Site	Building	Type of pavement	Chronology	Duties	Amount	Price	IG document
Demetrios	Eleusis	Tower	στρώμα	mid 4 th c. BC	extraction of 304 blocks of breccia-stone	304 pieces of stone	1 dr. per piece of stone	II ² , 1672, 1. 48–50
Ergasios	Eleusis	Tower	στρώμα	mid 4 th c. BC	extraction of 304 blocks of breccia-stone	304 pieces of stone	1 dr. per piece of stone	II ² , 1672, 1. 48–50
Kyprios	Eleusis	Tower	στρώμα	mid 4 th c. BC	extraction of 304 blocks of breccia-stone	304 pieces of stone	1 dr. per piece of stone	II ² , 1672, 1. 48–50
Euarchos	Eleusis	Tower	στρώμα	mid 4 th c. BC	extraction of 304 blocks of breccia-stone	304 pieces of stone	1 dr. per piece of stone	II ² , 1672, 1. 48–50
Milakos	Eleusis	Tower	στρώμα	mid 4 th c. BC	extraction of 304 blocks of breccia-stone	304 pieces of stone	1 dr. per piece of stone	II ² , 1672, 1. 48–50
Pistias and Douriktonides	Eleusis	Tower	στρώμα	mid 4 th c. BC	cleaning operations	N.S.	270 dr.	II ² , 1672, 1. 51–52
Damasias	Delos	Temple of Apollo	[στ]ρώμα	297 BC	construction of floor	N.S.	N.S.	XI, 2 150 A, 1. 6–8
Aristokles	Delos	Stoa of Artemision	στρώσαι	274 BC	construction of floor	N.S.	36 dr.	XI, 2 199 A, 1. 81–82
Damophilos	Epidauros	Aphrodision (or Artamition)	στρώματος	4 th c. BC	providing spotted limestone	5 slabs	14 dr. 2 ob. 5 ch. per slab	IV ² , 1 106, 96–98
Euxenidas	Epidauros	Domestic space		4 th c. BC	providing spotted limestone	295 medimmi	1 dr. 4 ob.	IV ² , 1 109 III, 102–109
Lysikrates	Epidauros	Asklepieion (foundation)	στοιβάν ... τῶι στρώματι	first third of 4 th c. BC	transport and assembly of limestone blocks	N.S.	843 dr. 2 ob.	IV ² , 1 102, 33–34
Mnasillos	Epidauros	Asklepieion (pavement and ramp)	στρώματος	first third of 4 th c. BC	transport and assembly of spotted limestone blocks	N.S.	4.320 dr.	IV ² , 1 102, 40–41
Echetimos	Epidauros	Asklepieion	στρώσιν	first third of 4 th c. BC	construction of floor	N.S.	759 dr.	IV ² , 1 102, 52–53

Table 1: Specific work assignments to the craftsmen involved in the construction of floors recorded in the *Rationes Aedificatorum*. N.S. = Not Specified.

Kallis	Epidauros	Asklepieion (pronaos and cella)	στρώματος	first third of 4 th c. BC	sanding of the floor	N.S.	150 dr.	IV ² ,1 102, 70-71
Gorgias	Epidauros	Asklepieion (external floor)	στρώματος	first third of 4 th c. BC	cleaning of the floor	N.S.	N.R.	IV ² ,1 102, 84-86
Lakrines	Epidauros	Asklepieion (treasure)	N.S.	first third of 4 th c. BC	provision of stone	N.S.	11 dr.	IV ² ,1 102, 243-244
Apollonidas	Epidauros	Tholos (peristasis)	στρώμα	last third of 4 th c. BC	provision of σελίδες	13 σελίδες (26 blocks)	3.330 dr.	IV ² ,1 102, 166-169; 173; 175-176.
Kleomilos and Philonidas	Epidauros	Tholos (peristasis)	στρώμα	last third of 4 th c. BC	preparation and provision of σελίδες	20 σελίδες (40 blocks)	5.200 dr.	IV ² ,1 102, 164-166; 169-170; 176-177.

Table 1 (*continued*)

The Financing Models

The documents discussed above allow us to explore some aspects related to public and private financing. The relationship between workers and clients is certainly one of the most influential aspects in the economy of floors of ancient Greece and helps demonstrate two main financing models: a) financing by the sanctuary and b) private financing.

Financing by the Sanctuary

Regarding the financial responsibilities of the sanctuary, the examined reports provide a detailed picture of the economic relations between the workers and the *hieropoioi*, *naopoioi* and *epistatai*, entrusted to supervise the work of the sanctuary. In this case, the financing practices were simplified, and the provisions benefitted both the sanctuary, which would not have been linked to any obligation for contract payments, and the craftsmen, who could have clarified the methods of remuneration prior to the beginning of the work.

In the case of the craftsmen involved in the construction of floors, it was possible to verify at Eleusis that the payments were made once the work was completed.

At Delphi, on the other hand, the *naopoioi* applied a more complex remuneration procedure. The contractor received, in one or more payments, the fixed sum of the contract before the end of the work. A tenth of this payment was subtracted as a guarantee and was returned when the work was completed and verified.

At Epidauros the financing systems were much more flexible. In the Asklepieion, for example, the floor was commissioned to a few craftsmen who were in charge of transporting and/or setting huge portions of the floor. In the case of the Tholos and Aphrodision (or Artamition), instead, payments were divided by increasing the number of craftsmen involved in the construction of the pavement.

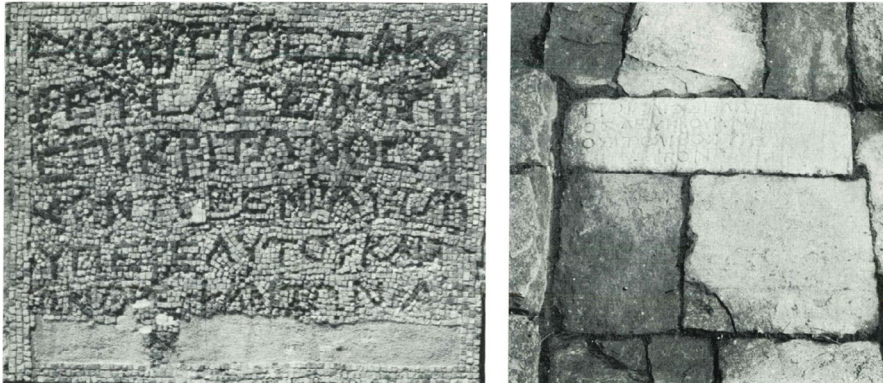


Fig. 3: Delos. Inscriptions on the floor of the Sanctuary of the Syrian Gods.



Fig. 4: Eretria. Mosaic at the Sanctuary of the Egyptian Gods.

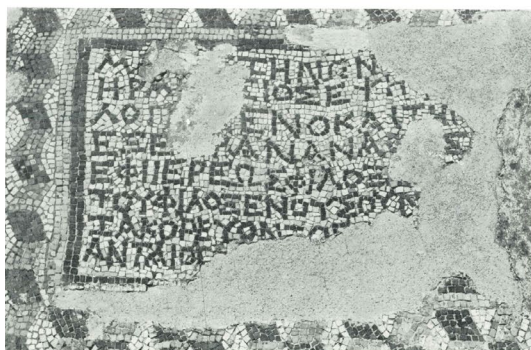
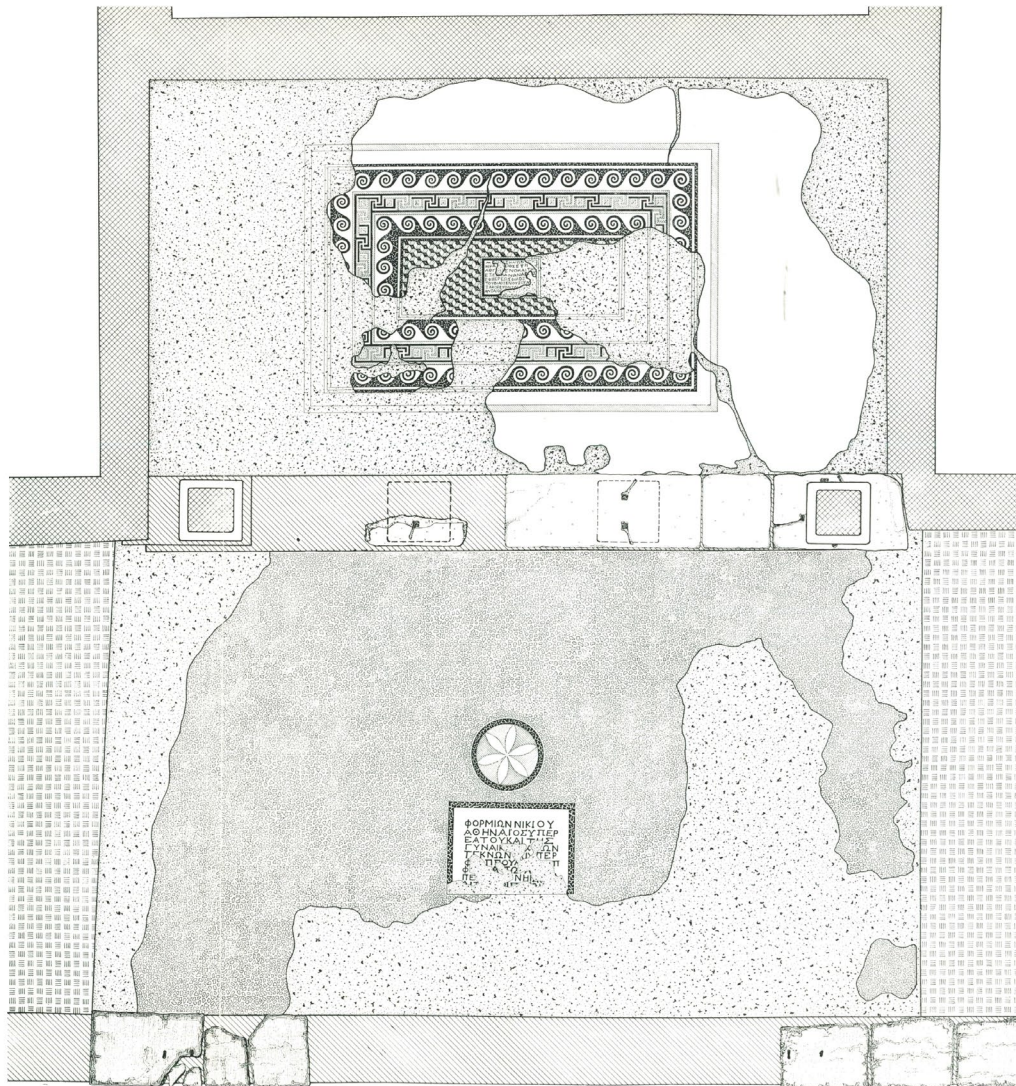


Fig. 5: Delos. Inscriptions by Midas (an Italian worker) and Phormion (an Athenian worker) on the floor of the Sanctuary of the Syrian Gods.

Private Financing

The second model concerns private funding. Our information is provided by the dedications, which were inscribed directly on the mosaics or on a stele (fig. 3). In this regard, the epigraphic documentation testifies to the various backgrounds of the clients, ranging from local, connected with the city where the mosaic was put in place, such in the case of Alexippos and Klearetēs, who dedicated a mosaic in the sanctuary of the Egyptian gods of Eretria⁵ (fig. 4) to foreign, as evidenced by the rich mosaic repertoire on Delos⁶ (fig. 5).

Conclusion

The examination of the epigraphic evidence, related to the archaeological data, has demonstrated some aspects of the economy of flooring in the Greek sanctuaries of the Classical and Hellenistic age.

In particular, it was possible to demonstrate five main points: first, the most important information concerning the workers and the economy of the floors and mosaics of the Classical and Hellenistic age comes from the epigraphic documentation of the sanctuaries at Eleusis, Delos and Epidauros; second, at Eleusis the operations were divided between those who constructed the floors and those who cleaned them; third, at Delos there is evidence of public contracts for architects and artisans. The winners of these public contracts were subjected to a complex contractual system, characterized by the retention of one-tenth of the payment to the *hieropoioi* as a guarantee; fourth, the Epidauros documents, instead, show different forms of payment, in particular for the transport of raw materials. The floor of the Asklepieion, for example, was commissioned to a few craftsmen who transported huge amounts of stones. In the case of Tholos and Aphrodision, on the other hand, the preferred payment method was to divide the payments by increasing the number of craftsmen involved in the transportation and construction of the floor; finally, two financing models can be reconstructed: one managed by the sanctuary, and another based on funding from private individuals. The first was mostly associated with the construction of marble floors, while the second model mostly concerned mosaic floors.

In conclusion, this research can be viewed as a starting point for new important studies on the economy of the marble floors and mosaics in the ancient Greek world.

Notes

¹ The most important information about the economy of marble pavements are offered by the *Rationes Aedificiorum* of the Classical and Hellenistic periods. For recent research on this topic, see Feyel 2006 and Prignitz 2014.

² For general information on the builders and contract at Epidauros, see Burford 1969.

³ For more detailed information, see Cecconi 2017.

⁴ Roux 1961, 176.

⁵ Bruneau 1975, 120.

⁶ Bruneau 1972, 115.

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Fig. 1: Roux 1961 pl. 27 and Salzmänn 1982, pl. 56.6. – Fig. 2: Roux 1961, pl. 38, ríeal. aut. – Fig. 3: Bruneau 1972, fig. 153. 154. – Fig. 4: Bruneau 1975, pl. 12. – Fig. 5: Bruneau 1972, figs. 155. 157. 159.

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