

Quarry Origins, Commission, and Import of the Marble Sculptures
from the Roman Theater in Philadelphia/Amman, Jordan
E. A. Friedland and R. H. Tykot

Interdisciplinary Studies on Ancient Stone

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QUARRY ORIGINS, COMMISSION, AND IMPORT OF THE MARBLE SCULPTURES FROM THE ROMAN THEATER IN PHILADELPHIA/AMMAN, JORDAN

E. A. Friedland and R. H. Tykot

Abstract

While extensive work has been conducted on marble artifacts discovered in Israel and Syria, only a few studies have sampled marbles from Roman Jordan, and those have focused on architectural artifacts. This study is the first in a series, designed to document and interpret the quarry origins of marble statuary that was imported to Roman Arabia. Five marble statues discovered in the Roman Theater of Amman in 1957 were sampled. All samples were analyzed for maximum grain size (MGS) and by X-ray fluorescence (XRF) and stable isotope analyses. The absence of magnesium in all samples, determined by XRF, indicates that all are calcitic marble. The combination of MGS and isotopic analyses suggests that the pieces come from quarries in Greece and Turkey. These results provide insights into the logistics of commissioning and importing marble statues to Arabia.

Keywords

Roman sculpture, isotopic analyses, Roman Near East, Arabia, Philadelphia/Amman.

Introduction

While extensive work has been conducted on architectural, funerary, and sculptural marbles discovered in Israel (Pearl 1989; Pearl and Magaritz 1991; Fischer 1998, 2002, 2009; Friedland 1999), and recently, a comprehensive research program to analyze the origins of marble sarcophagi and statuary discovered in Syria has been undertaken (Wielgosz 2000, 2001, 2008; Wielgosz *et al.* 2002), only a few studies have been conducted on marble artifacts from Roman period Jordan, and those have focused solely on architectural marble (Al-Bashaireh 2003). Because studies have shown that the marble for architectural elements and sarcophagi was often quarried in standardized sizes and shipped in multiples or groups (quarry-state or partially- or fully-carved), while statues tended to be shipped individually (fully-carved, partially-carved, or in quarry-state) (Russell 2011, 150), it is important to study all genres of marble artifacts discovered in a region (Russell 2008, 117-119). Though there are fewer finds and published studies of marble architectural elements, over 100 marble sculptures have been discovered in Jordan, documented mainly at the sites of Philadelphia/Amman, Gadara/Umm Qais, Gerasa/Jerash, and Petra (Weber 2002), and new finds are discovered regularly. Knowledge of the quarry origins of marble statues discovered in Jordan can significantly enhance our un-

derstanding of trade routes, the economics of the use of marble, the role of Roman Arabia in the broader imperial marble trade, and the goals of the patrons of these expensive, imported artifacts. This study, therefore, was designed as the first in a series to document and interpret the quarry origins of the three-dimensional marble statuary that was imported and installed in the major, urban monuments of Roman Arabia. This study presents the first phase of research that focused primarily on the quarry origins of the statues: after a brief introduction to Roman Philadelphia/Amman, its theater, and the five statues found there, we review the results of the scientific analyses of the marble and present conclusions about the logistics of commissioning and importing these marble statues to Arabia.

The statuary associated with the Roman Theater in Amman was chosen as the first group to be studied, because of the accessibility of the statues for extracting marble samples, because the five pieces are all clearly documented as having been found in the excavations of the Roman Theater (though we lack more precise finds-pots), and because they are associated with a major monument that was located in one of the key cities of Roman Arabia and for which there is some, however small, epigraphic evidence. Philadelphia/Amman, which was given its Greek name under Ptolemaic rule (c. 323-218 BC), was one of the initial ten cities of the Decapolis, a league of Hellenistic centers established by the Roman general Pompey the Great in 64/63 BC. Thus the city played a key role in the region from the earliest Roman presence there. After the Roman annexation of Arabia in AD 106, Philadelphia was incorporated into the major highway, the Via Nova Traiana, that the Romans constructed from Aila/Aqaba in the south to the capital of Roman Syria, Bosra, in the north, and eventually Philadelphia served as a major junction to seven highways (Roll 2005, 111). While the city had clear ties to its Hellenistic past (as evidenced by its Greek constitution, issuance of coins, and structures such as the theater, *odeon*, and gymnasium), “its sense of Roman identity was linked to the forum, the baths, the temple complex on the citadel, the colonnaded streets, bridges, a splendidly engineered conduit, a military presence, dedications to emperors and governors, and the highways that ran through and near the city” (MacAdam 1992, 38-39). As we will see, the theater and its statues constituted an important part of this adoption of Roman cultural and religious institutions.

The large theater of Philadelphia/Amman was built into the side of the hill just south of the Roman Forum, sometime during the middle to late 2nd century

AD (Hadidi 1970, 61-67; El Fakharani 1975; Northedge 1992, 58; Segal 1995, 82-85; Retzleff 2001, 47-48). The structure has been cleared, excavated, and restored since 1957. Multiple fragments of a limestone architrave block of the *scaenae frons* (stage building) bear an inscription, the most legible part of which reads, "To... Titus Aelius Hadrianus Antoninus Caesar Augustus, Himself and His Entire House" (full inscription: Gatier 1986, 41-42, nr. 16; legible portion only: El Fakharani 1975, 400-403; Stemmer 1978, 25; Vermeule 1978, 104; Gergel 2004, 400). This inscription names the honorand to whom the stage building on which it was inscribed if not the entire theater was dedicated, the Emperor Antoninus Pius, who ruled from AD 138-161. Another fragment of the architrave block names the city of Philadelphia (Gatier 1986, 42, nr. 16j), while a third fragment mentions something "public" and may refer to the public treasury of the city and Philadelphia's role as patron of the construction or renovation of the *scaenae frons* or of the entire theater (Gatier 1986, 42, nr. 16d). It should be noted, however, that the inscription does not provide a secure date for the construction of the theater itself or for the individual statues discovered within its ruins. Further evidence for the dating of the theater comes from a coin of Marcus Aurelius (AD 169-177), minted at Philadelphia/Amman, that was found "at the bottom of the *scaenae frons* almost on bedrock" (Hadidi 1970, 66). This is the earliest coin discovered in the theater. Thus, the stage building, which had to have been constructed after the completion of the main seating area of the theater, must have been built sometime during or after the reign of Marcus Aurelius, the son and successor (along with his brother, Lucius Verus) of Antoninus Pius.

The sculptures from the Roman Theater in Philadelphia/Amman

Five statues were uncovered in the excavations of the theater (though, as mentioned above, their exact findspots are unknown): two larger-than-life-size portraits and three mythological statues. The over-life-size statue of a cuirassed man (Fig. 1), standing 1.18 m tall and preserving the torso and upper legs, has been identified as one of the Antonine emperors (El Fakharani 1975, 399-400; Stemmer 1978, 25, II 4a; Vermeule 1978, 104-105; Weber 2002, 509-510; Gergel 2004, 400). The imperial identification is derived from the piece's scale and costume, both of which were generally reserved solely for portraits of emperors (Rose 1997). Though there is not enough evidence to determine conclusively whether the statue represented Hadrian or Antoninus Pius, the composition of the breastplate and the motifs on the lapets are best associated with eastern, Hadrianic breastplate types (Gergel 2004, 400). At the center of the breastplate Athena stands atop a nursing she-wolf and is flanked by a serpent (proper right) and an owl (proper left). The goddess is being crowned

by two flanking Nike figures. Further support for an identification as Hadrian comes from the fact that the piece has been dated iconographically and stylistically to the second or third quarter of the 2nd century AD (late Hadrianic or immediately post-Hadrianic periods, when statues of the deceased emperor would still be erected) (Weber 2002, 510; Gergel 2004).

Also found in the Theater in Amman and of comparable scale to the over-life-size statue of a cuirassed emperor is an over-life-size statue of a draped female (Fig. 2), which stands 1.46 m tall and preserves the torso, most of the legs, and portions of both arms of the figure (El Fakharani 1975, 400; Vermeule 1978, 104; Weber 2002, 510). The woman wears a tunic and a pallium and is heavily draped in a mantel. Though the figure's identity is not knowable, the piece is likely to have represented one of the female members of the imperial family from the Trajanic, Hadrianic, or Antonine periods (El Fakharani 1975, 400; Vermeule 1978, 104). First, the draped female is dated stylistically to the second or third quarter of the 2nd century AD (late Hadrianic or early Antonine periods). Second, its scale is comparable to that of the cuirassed emperor. Finally, empresses and other related imperial women commonly accompanied depictions of emperors in such sculptural programs.

Though it is not possible to know for certain where these two pieces were originally displayed in the theater, one scholar has proposed that due to their similarity in scale, workmanship, date, and subject matter, these two larger-than-life-size pieces would have originally been pendants and installed in the two large niches in the *scaenae frons* (El Fakharani 1975, 400). In fact, two larger than life-size Hadrianic or Antonine portraits are perfectly at home in the Theater in Amman for several reasons. First, these subjects are in keeping with the dedication of the stage building to Antoninus Pius. The focus of sculptural displays in Roman theaters was on "portraits, politicians, and propaganda", and in the imperial period, portraits of emperors and their families became the central displays in *scaenae frontes* throughout the Roman world (Sturgeon 2004, 29). Second, the Hadrianic and Antonine date of these two portraits is in keeping with the fact that imperial dynastic groups were especially common in theater displays during the Hadrianic and Antonine periods (Sturgeon 2004, 32). Third, the larger than life-size scale of these two pieces compares to imperial statues dedicated in other theaters throughout the empire and makes these statues appropriate pieces to have filled the two *aediculae* on either side of the central door in the *scaenae frons*. While we only have evidence for the portrait of Hadrian or Antoninus Pius and some related female member of the Hadrianic or Antonine family, it is entirely possible that these pieces could have been part of a larger dynastic sculptural program and that statues depicting other members of the Antonine family could have been installed in niches on a second storey of the stage building, which has been reconstructed due to the numerous pedestals, columns, and Corinthian capi-



FIG. 1. Cuirassed Roman Emperor, late Hadrianic/early Antonine period (125-150 AD), marble, Roman Theater, Amman (exact findspot unknown). Photo: Elise A. Friedland; courtesy of the Department of Antiquities of Jordan.

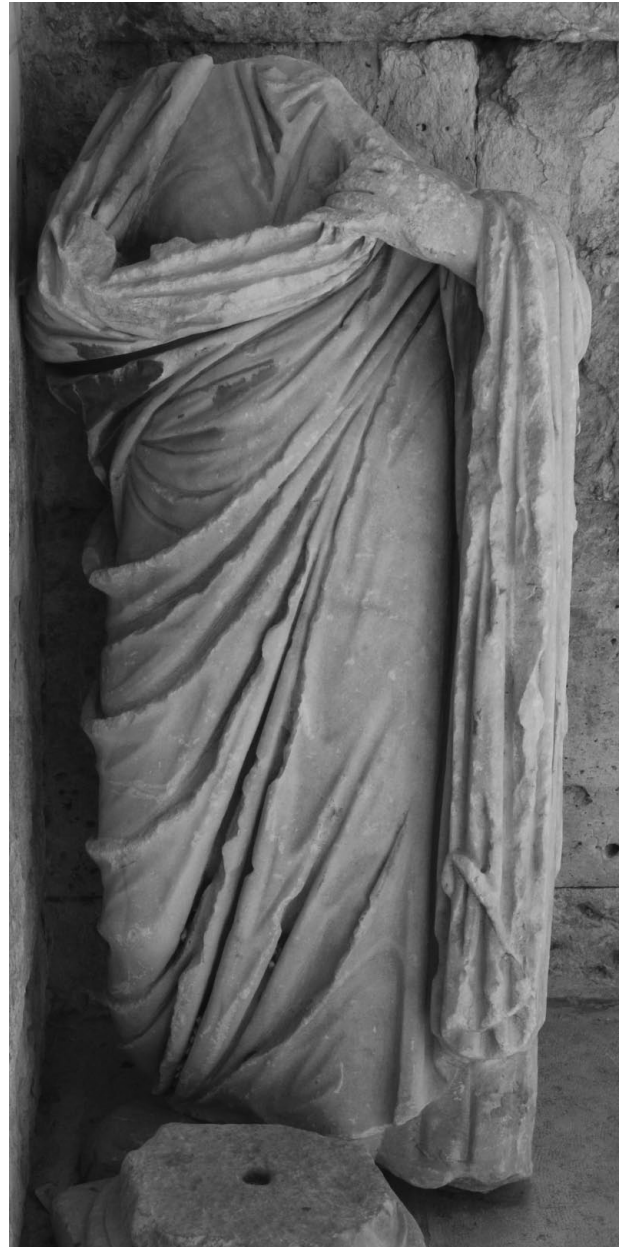


FIG. 2. Draped female, late Hadrianic/early Antonine period (125-175 AD), marble, Roman Theater, Amman (exact findspot unknown). Photo: Elise A. Friedland; courtesy of the Department of Antiquities of Jordan.

tals that were found in the debris that covered the stage building (Hadidi 1970, 66).

In addition to these two over-life-size portraits, three mythological figures were recovered from the theater. An over-life-size torso of Asklepios of the Florence type (Fig. 3) stands 0.76 m tall and preserves the torso from the base of the neck to just below the navel as well as the figure's left arm (Weber 2002, 505-506). The god wears a mantle that is pulled diagonally across the back, flows over the left shoulder, down the left side of the body, and crosses the front of the torso horizontally over the navel. The piece has been dated stylistically to the second half of the 2nd century AD (Antonine period) and is most likely a replica of the cult statue of the Pergamene Asklepieion (Weber 2002, 505-506). Though images of

Asklepios were not prevalent in Roman theaters, there is some evidence for the healing god's presence in theaters both in the West and the East (Fuchs 1987, 51, 112, 186; Sturgeon 2004, 158-159). The over life-size scale of this figure makes it likely that it was displayed either in one of the niches in the proposed second storey of the *scaenae frons* or between the columns of the stage building, as was also common.

A two-thirds life-size statue of Athena Hephaisteia (Fig. 4) found in the Roman Theater stands 1.08 m tall and preserves the draped body of the standing goddess from the neck down, though her arms are missing from just above the elbows (J.6384; El Fakharani 1975, 398-

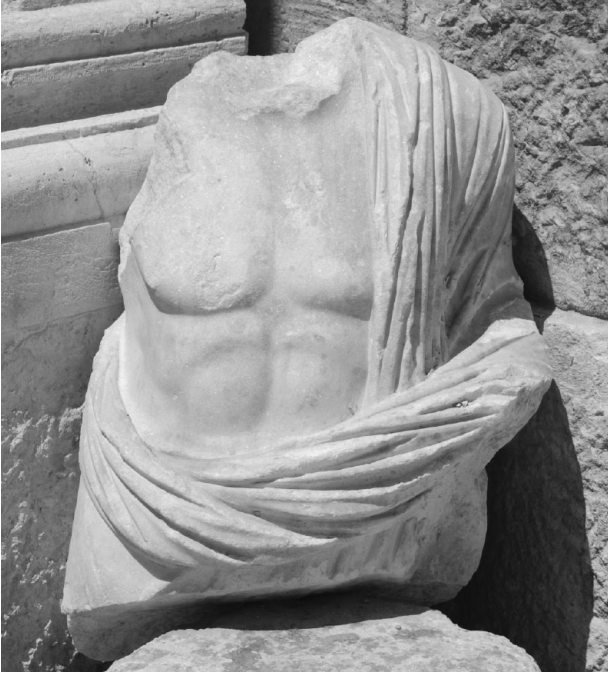


FIG. 3. Asklepios of the Florence Type, Antonine period (150-200 AD), marble, Roman Theater, Amman (exact findspot unknown). Photo: Elise A. Friedland; courtesy of the Department of Antiquities of Jordan.

399; Weber 2002, 505). The piece also preserves most of her base and a portion of her shield, which served as a support. The statue has been dated stylistically to the second half of the 2nd century AD (the Antonine period) (Weber 2002, 505). The small scale of the piece sets it apart from the two over-life-size portrait statues and the over-life-size statue of Asklepios, and one scholar has proposed that the piece, because of this distinction in scale and because of its subject matter, was meant to be displayed in the rectangular *exedra* at the top center of the theater's auditorium that may have served as a miniature temple (El Fakharani 1975, 398-399). However, other scholars have proposed that this temple honored the Tyrian Herakles and his mother Asteria as opposed to Athena (Hadidi 1970, 65, n. 90), and in any event, there is no way to determine the statue's original display location within the theater. The piece's small scale makes it less likely that it served as a cult statue and highly unlikely that it was displayed in the superstructure of the *scaenae frons*. In terms of subject matter, Athena was one of the seven most common deities represented in the decorative sculptures of Roman theaters (Sturgeon 2004, 29).

Finally, the base of a statuette of Hermes was also discovered in the Roman Theater (Fig. 5) (J.8064; Weber 2002, 507). The oval base preserves only the right lower leg and both nude feet of the god as well as the tree trunk support and the body of his accompanying sheep. The piece measures 0.40 m at its highest-preserved point and 0.48 m at its greatest-preserved width. The statuette has been dated stylistically to the second half of the 2nd century AD (or the Antonine period) (Weber 2002, 507).



FIG. 4. Athena Hephaisteia, 150-200 AD, marble, Roman Theater, Amman (exact findspot unknown). Photo: Elise A. Friedland; courtesy of the Department of Antiquities of Jordan.

Hermes was also one of the seven most common deities represented in the decorative sculptures erected in Roman theaters, though this sculptural type with the accompanying sheep is not recorded as appearing widely (Sturgeon 2004, 29). The statue's small scale makes it highly unlikely that it was displayed in the superstructure of the *scaenae frons*.

Thus, the sculptural finds from the Roman Theater in Amman include at least three pieces (the Cuirassed Emperor, Draped Female, and Asklepios of the Florence Type) that were very likely displayed in the aediculated façade of the *scaenae frons*.



FIG. 5. Base of a statue of Hermes, 150-200 AD, marble, Roman Theater, Amman (exact findspot unknown). Photo: Elise A. Friedland; courtesy of the Department of Antiquities of Jordan.

Quarry origins of the marble sculptures

The samples taken from the five sculptures discovered in the Theater at Philadelphia/Amman were analyzed by the Laboratory for Archaeological Science at the University of South Florida for maximum grain size (MGS) using a Jens optical microscope equipped with cross-polarized lenses; by X-ray fluorescence spectroscopy using a Bruker III-V portable XRF instrument with a vacuum generator attachment, specifically for testing the presence of magnesium; and by stable isotope ratio analysis using a Finnigan-MAT Delta Plus equipped with a Kiel III

gas generating device using 100% phosphoric acid at 90° C. The precision of the isotope data is about $\pm 0.1\%$. The XRF analysis indicated that none of the marble samples tested contained significant amounts of magnesium, thus eliminating possible dolomite marble sources such as Thassos. The results of the isotopic analyses and maximum grain size measurements are shown in Table 1 and Fig. 6. In general, the results demonstrate that the marble for the statues that were once displayed in the Roman Theater of Philadelphia/Amman originated in well-known quarries of Roman period Greece (Pentelikon, Naxos, and perhaps Paros-2) and Turkey (with possible quarries including Aphrodisias, Ephesos, Mylasa, Prokonnesos (Marmara), Uşak, and Heracleia). Notably, none of the statues sampled and tested were made of marble from Italy.

It is instructive to compare these results to the quarry origins for other statues from Jordan that have been sampled and to consider the ramifications of the quarry sources for the logistics of the commission, import, production and display of marble sculptures in Roman Arabia. First, the quarry origins for the five pieces reported here are comparable with those determined for marble statuary from Roman period Syria (Wielgosz 2000, 2001, 2008; Wielgosz et al. 2002) and Palestine (Pearl 1989; Fischer 2002, 2009), regions which are both known to have imported marble statuary from Greece and Turkey as opposed to Italy. The quarry origins for the pieces from the Theater in Amman are similar to the those of two other pieces from Amman (discovered in the Agora and the Great Temple) and two pieces from Gadara/Umm Qays (one from the West Theater and one from the *decumanus maximus* found on the north sidewalk near the Nymphaeum) that were sampled for

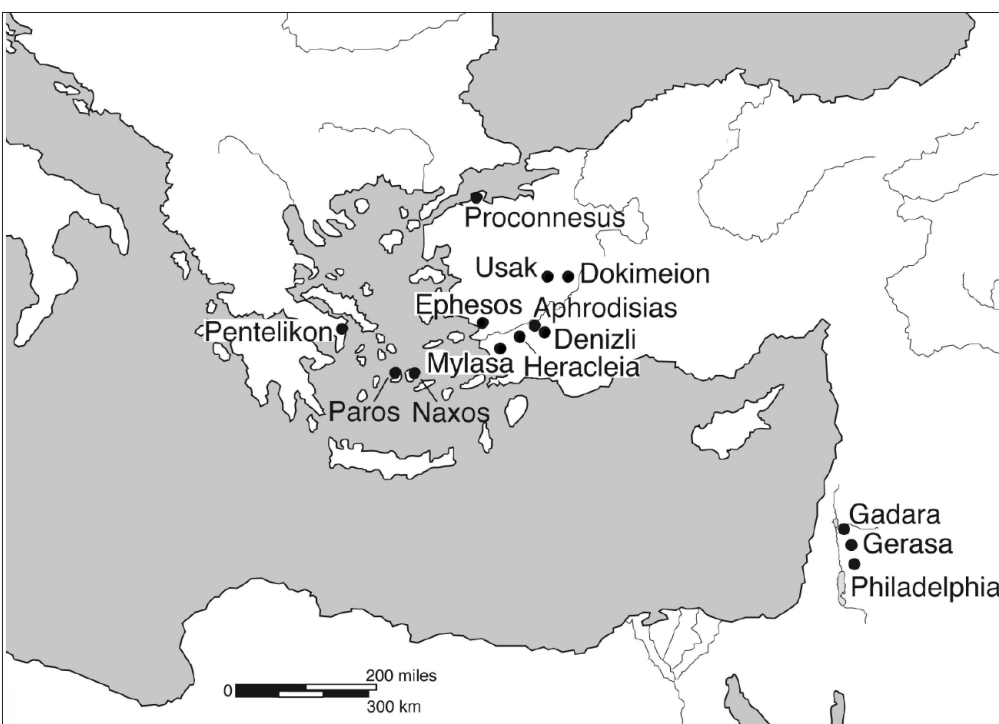


FIG. 6. Map of quarry origins of statues from the Roman Theater, Amman. Drawing: Lorene Sterner.

Statue	USF #	$\delta^{18}\text{O}$	$\delta^{13}\text{C}$	Isotopic Matches	MGS	Probable
Cuirassed Emperor	10790	2.6	-6.3	Naxos; Pentelikon; Prokonnesos (Marmara)-2; Djebel Ichkeul (Tunisia); Doliana 1?	1.0	Pentelikon
Draped Female	10791	4.0	-1.5	Prokonnesos (Marmara)-1; Thasos, Cape Vathy; Denizli-1	3.0	Prokonnesos (Marmara)-1
Asklepios	10792	3.5	-3.6	Paros-1; Prokonnesos (Marmara)-1; Thasos, Cape Vathy	2.5	Prokonnesos (Marmara)-1
Athena	10794	2.3	-3.7	Aphrodisias; Carrara?; Dokimeion (Afyon); Naxos; Paros-2; Pentelikon?; Prokonnesos (Marmara)-1; Mani?; Mylasa; Uşak; Heracleia	2.0	Aphrodisias; Naxos; Paros-2; Prokonnesos (Marmara)-1; Mylasa; Uşak; Heracleia
Hermes/Good Shepherd	10795	1.1	-3.8	Aphrodisias; Dokimeion (Afyon); Naxos; Paros-2; Prokonnesos (Marmara)-1?; Ephesos 2; Mylasa	2.0	Aphrodisias; Paros-2; Prokonnesos (Marmara)-1?; Ephesos 2; Mylasa

TABLE I. Results of chemical and petrographic analyses of five marble statues from the Roman Theater in Philadelphia/Amman.

preliminary comparative purposes (Friedland and Tykot 2010). The marble for the five pieces from the Theater in Amman also comes from some of the same quarries that supplied marble for the only other group of statuary from Jordan that has been tested, eleven statues from the North Hall of the East Baths at Gerasa (Friedland 2003). However, it is interesting to note that the well-known, northern Greek quarries of Thassos seem to have been a more prominent supplier of marble for the group erected in the East Baths at Gerasa (where seven of the eleven statues are made of Thasian marble), while Thasian marble is not represented in the statues discovered to date in the Roman Theater in Amman. Thus, this small data set from Jordan (which hopefully will be augmented by future phases of this marble sourcing project) not only begins to fill a void on the map of the imperial marble trade, but expands our basis for understanding the trade networks between the major quarries of Greece and Turkey and the various regions and cities of the Roman Near East. Future studies may consider possible overland paths from ports of entry on the Levantine coast such as Berytus, Sidon, Tyre, Caesarea Maritima, and Ascalon to the city of Philadelphia/Amman itself; because issues of grade made the transport of heavy marble statues different than that of other, lighter-weight commodities, we cannot assume that the most direct route – in this case the road from Caesarea Maritima through Sebaste, Neapolis, Coreae and then to Philadelphia – was used (Roll 1983, 145; 2002, 217; 2005, Fig. 1).

Second, the specific quarry origins for each piece are also important, because scholars have long tried to identify the origins of the marble of some of these statues with the naked eye. For example, while El Fakharani identified the marble of the statue of a Cuirassed Emperor as coming from “Carrara” (El Fakharani 1975,

399), Vermeule stated that he believed that the piece was made from “Greek marble, probably of a good mainland grade” (Vermeule 1978, 105); indeed, our chemical and petrographic tests reveal that the Cuirassed Emperor was made from marble quarried at Mt. Pentelikon in Greece.

Third and perhaps most importantly, the results provide further data for considering the logistics of the commission and import, production and display of specific marble statues discovered in Arabia. As noted above, El Fakharani (and others following him) have proposed that, because of their similar scale and the similar workmanship on their backs, the statue of a Cuirassed Emperor and the statue of a Draped Female were initially part of a pair or a group, perhaps installed in two of the niches that flank the central opening in the *scaenae frons* (El Fakharani 1975, 400; Vermeule 1978, 104; Gergel 2004, 400). While these two pieces certainly seem to have been displayed together, if not as pendants then as part of a sculptural program, it is interesting to note that they are carved of marble from two different quarries: the Cuirassed Emperor is made of marble quarried on Mt. Pentelikon, Greece, while the Draped Female is carved of marble from Prokonnesos (Marmara) in Asia Minor. If the portraits were, in fact, originally meant to be displayed together (and not reused and combined after initial installations in other disparate monuments), this difference in quarry origins reveals interesting scenarios for the *logistics of commission and import*. It seems that the patron was not concerned that the pair should be made of the same marble, so that the patron did not “order” the “group” from a single marble quarry or associated sculptural workshop. While there are multiple possible scenarios for the commission and acquisition of these pieces (Russell 2008), we mention only a few here.

First, the patron could have worked with regional marble agencies and ordered the pieces from different quarries. Alternately, the patron could have ordered these statues from a marble yard, where blocks of marble suitable for over-life-size statuary were waiting to be carved. Still a third scenario is that the patron could have purchased the two statues individually as pre-carved pieces that had been imported fully-carved from foreign sculptural workshops and were held in stock at a Levantine marble yard, awaiting a purchaser.

The quarry sources reveal interesting information regarding the *production* of the statues from the Theater in Amman. The scientific tests support earlier stylistic analyses of the two pieces (published long before this quarry sourcing study was undertaken) that associated the Cuirassed Emperor with an Eastern, Greek sculptural workshop (Weber 2002, 510; Gergel 2004) and the Draped Female with a sculptural workshop in Asia Minor (Weber 2002, 510). If some scholars' claims that sculptors tended to work marble from their own regions are correct (Rockwell 1990, 221; 1993, 2-5), then it could be that these pieces were carved by different sculptors and were not commissioned from one artist or workshop. Of course, this diversity of marble sources and carving styles is seen not just in this pair of the Cuirassed Emperor and the Draped Female, but in all five of the statues recovered from the Theater, so that the same conclusions hold true for the sculptural embellishment of the entire monument: the five statues discovered in the Roman Theater were not originally "ordered" from a single quarry or associated sculptural workshop as a group, though they were certainly displayed together at some point during the history of the theater.

To place these new insights on the commission, import, production, and display of the statues from the Roman Theater in Amman into perspective and to further understand the importance of the scientific analyses of quarry origins, some brief background about the nature of sculptural displays in theaters and the dedication of imperial dynastic portraiture is useful. Though the sculptures displayed throughout Roman theaters were aggregative, that is they were often erected individually and throughout the lifespan of the monument, the statuary installed in the *scaenae frons*, at least the main figures erected in the niches, was generally installed as a group at the time of dedication of the stage building (Sturgeon 2004, 26, 33) – in the case of the Roman Theater in Amman probably during the reign of Antoninus Pius or of Marcus Aurelius. The sculptural programs from *scaenae frontes*, then, have a higher likelihood of having been ordered from a single marble quarry and associated sculptural workshop; this is the case, for example, with the statuary from the niches of the *scaenae frons* of the theater at Corinth (Sturgeon 2004, 22-25). The fact that the pieces from the Theater in Amman may very well have been dedicated contemporaneously, but come from disparate quarry sources and sculptural traditions, then,

provides an interesting reminder to us today that the ancients were perfectly comfortable viewing sculptural pastiches; it also has interesting implications regarding the standardization of sizes of both pre-carved statues and blocks to be carved into statues that were shipped from quarries in Turkey and Greece to marble yards along the Levantine coast; mostly, it reflects the geographical and geological realities of the Roman Near East. What is important to note, though, is that these geographical and geological realities did not inhibit Philadelphia/Amman (and other urban centers of Arabia) from participating in mainstream, Roman political, social, and religious spheres. In fact, such groups of imperial portraits as that dedicated in the Amman Theater could not have been erected without the dedicator's submitting a specific request to the emperor and receiving permission to honor the emperor and his family by dedicating these statues. No matter who the dedicators of the sculptural program from the *scaenae frons* were, one of the intended messages must have been that the city of Philadelphia/Amman ranked among the great cities of the Roman Near East and that it had clear imperial connections. The sculptural group from the Roman Theater in Amman, therefore, constitutes an important remnant of the political affiliations that, in part, necessitated the maritime connections between the far Eastern empire and the imperial core, providing an example that occurred shortly after the import of marble to the Roman Near East began on any serious scale.

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