The Re-Use of Monolithic Columns in the Invention and Persistence of Roman Architecture

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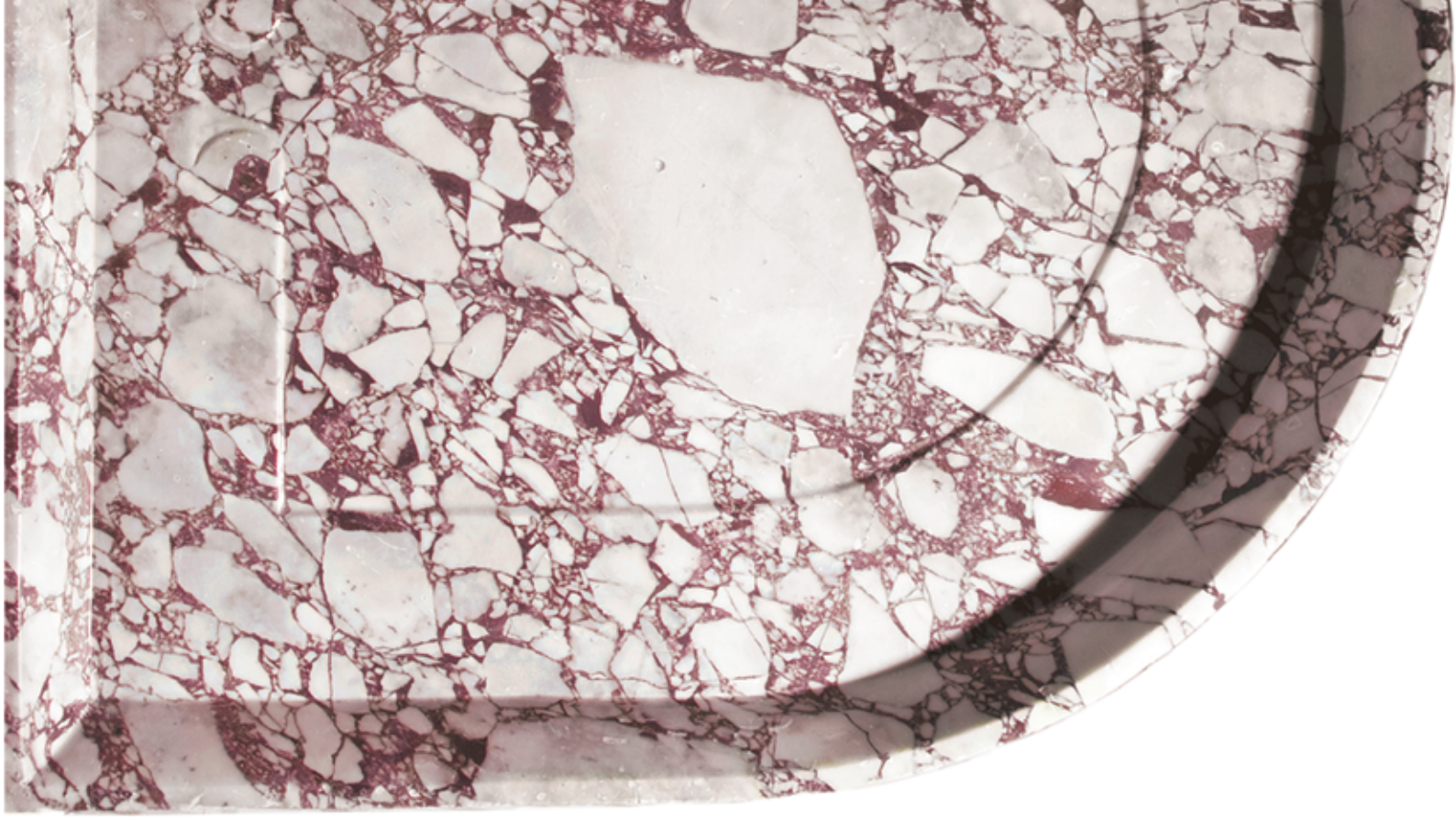

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Sigma shaped *mensa* of *pavonazzetto* marble from Diocletian's palace in Split

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CONTENT

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THE RE-USE OF MONOLITHIC COLUMNS IN THE INVENTION AND PERSISTENCE OF ROMAN ARCHITECTURE

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Abstract

Monolithic columns played a central role in the formation of a distinctive Roman architecture, especially in the periods when they were not widely produced. First, the earliest monolithic columns used in Rome during the Republican period arrived as spoils of war taken from cities in the Hellenistic east. From the beginning, architects in Rome found ways to integrate these impressive blocks into their architecture and even to invent new building types in order to accommodate the vast number of columns on hand. Second, this idea of centering the design of a new building around an accumulated set of monolithic columns was revived in the late Roman period, and is seen at many Constantinian and later churches in Rome and the provinces. Remarkable is the persistence and wide spread of this habit, which extends through Medieval, Renaissance, and even Baroque times.

Keywords
spolia, republican, late antiquity

Monolithic columns are a hallmark of the so-called "marble-style" architecture of the imperial Roman period.[1] Each shaft represents a tremendous expenditure of effort and money to quarry, transport and install. Through the first and second centuries CE, columns were manufactured in an increasingly standardized range of sizes in order to facilitate their incorporation into grand civic and religious projects. The imperial administration sponsored much of the production, and columns and other large blocks flowed toward Rome or were destined for favored projects in the provinces;[2] many columns were also locally produced and consumed. As an example of a local economy, we determined as part of the Aphrodisias Regional Survey Project that virtually all of the monolithic columns used in the city were quarried locally, and none are known to have been exported.[3]

In this paper, I look at the central role that monolithic columns played in the formation of a distinctively Roman architecture, and examine in greater depth the period before monolithic columns were being widely produced. In the "invention" period of my title, in the first century BCE, monolithic columns were a rare foreign novelty, and not commonly used at Rome. In the "persistence" period, or roughly from the later third century CE onward, new columns were created in ever-smaller numbers, requiring increasing efficiency in the re-use of what had already been quarried. In both of these periods, builders and patrons who wanted to use monolithic columns had to rely on precious recycled ones available from among the existing stock.

The decision to include recycled columns in a new building significantly affected the design of the structure. Rather than starting with a blank slate, the builders began with significant elements of their new structure already dictated. Unfortunately no built examples survive from this earliest period, but they are known to have existed because they are mentioned in literature, such as the stage of the theater of Scaurus (see further below). Some of its documented innovations may have also appeared in the near-contemporary theater of Pompey,[4] however, and perhaps also in the theaters of Marcellus and Balbus. From the later period, numerous examples are well preserved, the nave of Santa Sabina providing a good example with its fine set of evenly matched fluted white marble columns together with many of their original capitals and some bases.[5]

Whether Republican or early Christian, these buildings were equally impacted by the number and dimensions of their pre-existing columns. In the case of

1 MacDONALD 1981.

2 WARD-PERKINS 1992; FANT 1993; PENSABENE 2002.

3 RATTÉ, De STAEBLER 2012; LONG 2012.

4 Only slightly later than the Theater of Pompey is the stage of the theater at Aphrodisias, which could serve as a reflection of the general design and decoration of the theaters in the city of Rome; see PHILLIPS 2006.

5 PENSABENE 1991.

the theater stage, I argue that the superimposed levels of columns arranged in aediculae originated as a way to reorganize and logically display collections of mismatched columns. For the church, the size and number of matching columns available for the nave colonnade influenced all other dimensions, of both the plan and elevation. As for "persistence," the duration of this practice is long, since the similar influences seen at Santa Sabina are also, I believe, found at the Florentine Baptistery and Bramante's Tempietto. In all these examples, the existing dimensions of a set of ancient, (nearly) matching columns were a significant starting point for their designs. This is not limited to Rome and Central Italy, but also seen extensively at provincial sites, such as at Aphrodisias in Asia Minor.[6]

To return to "invention", it is very important to remember the oft-forgotten detail that the earliest monolithic columns used in Rome during the Republican period arrived as spoils of war—as literal *spolia*—taken along with art, cash, weapons, captives and slaves from cities in the Hellenistic east.[7] The columns were ready-made with set dimensions and had been removed from other structures. From the beginning, architects in Rome found ways to integrate these impressive blocks into their architectural schemes, and even, I suggest here, to invent new building types, such as the columnar *scaenae frons* mentioned above, in order to accommodate the vast number of columns on hand.

It is not clear when the first monolithic columns arrived in Rome, and no Republican period structures that used any have survived. Certainly, monolithic columns were fairly common by the late second and earlier first centuries BCE, however, for it is not unusual to find them as cargo on shipwrecks from this period.[8] The famous Mahdia wreck, for example, carried approximately 70 monolithic column shafts, each between approximately 2.5 and 5.0 meters tall (so about 8 to 16 Roman feet), together weighing up to ca. 300 tons.[9]

The earliest recorded great display of reused *spolia* monolithic columns was in the stage building of a temporary theater set up by M. Aemilius Scaurus in 58 BCE.[10] Pliny reports that Scaurus' stage building used 360 columns, in a mixture of materials including stone, gilded wood, and mosaic glass; although the number sounds large, the final version of Pompey's stage may have used about 320 columns.[11] Both Republican stages may have displayed statues between the columns, analogous to the statues known to have been paraded in Republican-era triumphal processions.[12] Since all of the columns, like the earlier attested statues, would have been brought to Rome ready-made, the stage building was necessarily designed in such a way as to take their dimensions and number into account.

The next use of some of Scaurus' columns is also documented. When the stage was taken down, four of the largest—38 feet tall, made of Lucullean marble—were installed in the atrium of Scaurus' grand house on the Palatine Hill.[13] Then, following Scaurus' disgrace and exile, these same columns were removed for re-use in Augustus' theater of Marcellus.[14] Other of Scaurus' columns are believed to have been repurposed for the elaborate interior decoration of the Temple of Apollo Sosianus, which was partly sponsored by Augustus.[15] Each interior wall was screened in a double-story array of *Africano* columns, and additional smaller-scale *portasanta*, *giallo antico*, and *pavonazzetto* columns were used as well. A kind of false gallery ran behind the columns of the upper level, and between the intercolumniations of the lower level were aediculae capped with alternating round and triangular pediments. A surviving *pavonazzetto* column sized for an aedicula is 2.36 m high[16] - exactly 8 Roman feet - so comparable in scale to the smaller columns recorded at the Mahdia wreck.

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6 An interesting example from Aphrodisias is the conversion of the temple of Aphrodite into a cathedral, in the 5th c CE. The columns involved are not monolithic, though they are re-used in the nave colonnade at their full height with their original bases and capitals in a new arrangement; see HEBERT 2000, CHANIOTIS 2008.

7 For the purposes of this discussion where columns continue as columns, I prefer "recycled" and "re-used" rather than "spolia," by which I mean "spoils of war". See also KINNEY 2001, and WARD PERKINS 1999.

8 See RUSSELL 2013, with earlier bibliography.

9 SALIES 1996.

10 Pliny, *Nat. Hist.* 36.24; some of the columns may have been pilasters.

11 PACKER, BURGE, GAGLIARDO 2007.

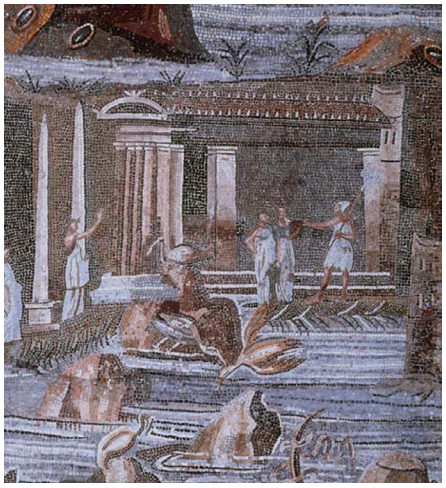
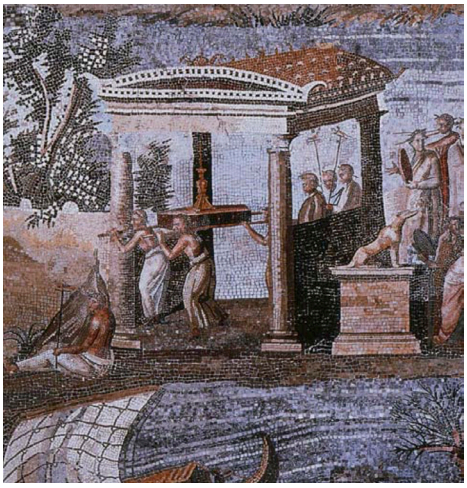
12 Examples include: M. Claudius Marcellus, Livy 24.21.8-10 and L. Annaeus Florus, 1.13.28; T. Quinctius Flamininus, Livy 34.52.4-5; M. Fulvius Nobilior, Livy 39.5.13-17; L. Aemilius Paullus Macedonicus, Plutarch 32.2-37.2.

13 Pliny, *Nat. Hist.* 36.5-6.

14 The columns were re-used in the *regia* of the theater of Marcellus; see BURRELL 2015. Other Lucullean/*Africano* marble columns were used by Augustus in the Basilica Aemilia (restored in 34 BCE), and the second tier of the exedrae of the Temple of Mars Ultor, above Numidian/*giallo antico* columns in drums (dedicated 2 BCE).

15 VISCOGLIOSI 1996. This interior likely mixed *spolia* columns with new production.

16 VISCOGLIOSI 1988, 144, no. 36.

Figs. 1–3. Details of columnar structures, Nile Mosaic, Sanctuary of Fortuna Primigenia, Palestrina (Italy), ca. 80 BCE
Museo Nazionale Prenestino

To recap, some of these individual columns may have seen as many as four uses in as few as about forty years: (1) their original context, (2) Scaurus' temporary theater, (3) Scaurus' house, and (4) Augustus' new theater and perhaps temple. I argue that in all of the instances of re-use, the dimensions of the existing columns informed the design of each new structure.

It may be that by the later first century BCE Rome had already imported as many existing columns as were readily available. Since there was a demand for still more, new production for the Roman market was started, a supply and demand problem comparable to the production of new copies and versions of original Greek statues. Through the first and second centuries CE, complex systems developed within the imperial administration and regionally to manage quarries and supply columns.[17] Since the columns were critical to the designs, but were difficult to make and took time to deliver, their production—and the architecture they were designed for—became increasingly standardized,[18] thus making them easier to recycle. The high imperial situation is the one so familiar to us: huge monolithic columns, in distinctive colored marbles, all of similar sizes and proportions, from limited sources in Rome, Italy, Greece, Asia Minor, and North Africa.

This all raises two fundamental questions: Where did the Romans get the original monolithic columns? And why did they expend so much effort and treasure to make and distribute even more of them?

One hint to the origin of monolithic columns comes from the beginnings of the large-scale import of marble to Rome, and Suetonius' prologue to the famous quote of Augustus, that he had found Rome a city of brick, and left it a city of marble. Augustus did this in part because: "the city was not adorned as the dignity of the empire demanded."[19] From this we may assume that capitals of other empires were appropriately adorned, and the most logical contenders are Antioch or Alexandria, each the seat of an intensely luxury-aware culture. Unfortunately, relatively little is directly known of either site from this period, but luckily, Roman interest in their building habits is reflected in their own decorative arts.

But first, some parameters. The monolithic columns brought to Rome as war booty in the first century BCE were not singled out as especially notable, but warranted only secondary mention. Therefore they may have been relatively small scale and numerous. Scaurus had perhaps 100 or so at his disposal, and among the larger were the four 38-footers. These could have been among the largest and heaviest blocks of stone ever moved through the city, however, since when they were brought from the Campus Martius up to his house on the Palatine, a sewer contractor forced a security deposit from Scaurus against possible damage to the drains under the streets.[20] Presumably the majority of his columns were smaller than these.

The question, then, is where could a relatively large number of relatively small monolithic columns have come from? Since Scaurus' columns were re-used first in a secular building, then in a private residence, they likely did not originate from temples, or at least not temples dedicated to gods also venerated by the Romans. In contrast, when Sulla took column drums from the

17 See WARD-PERKINS 1992; FANT 1989; FISCHER 1998.

18 See especially WILSON JONES 2000.

19 Suetonius, *Divus Augustus* 28.3.

20 Pliny *Nat. Hist*. 36.25; EVANS 2007.

Fig. 4. Detail of columnar structures, red cubiculum (room 16), Villa of Agrippa Postumus at Boscotrecase, ca. 10 BCE. Museo Archeologico Nazionale di Napoli

unfinished temple to Olympian Zeus at Athens, it was to use them in his rebuilding of the Temple of Jupiter Optimus Maximus on the Capitoline, nominally in the same context, then. Materials originating from non-religious contexts would have been free from this restriction.

One option for the origin of these monolithic columns is from smaller scale pavilions, local shrine buildings, or most likely luxuriously appointed tombs. This type of building appears with some frequency in the "Nile Mosaic" at Palestrina (Figs. 1–3). Accounting for some vertical exaggerations, the column shafts on the façades of these structures could be somewhere between 8 and 12 feet tall—like the Mahdia columns and the Temple of Apollo Sosianus aediculae—and the bright highlight running down each one may suggest an un-fluted monolithic shaft. Each structure could have been the source of an even number of matched columns, and therefore Scaurus' four 38-footers could represent the total number of columns from the façade of one original structure, and his roughly 100 columns could have come from perhaps 25 to 40 structures. The symmetrically arranged, alternating aediculae of the theater stage building could then essentially be stacked-up and packed-together luxury tomb façades. Even high imperial columnar façades made of all new materials maintained significant allegiance to this mix-and-match aesthetic.

Columns also appear frequently in sacro-idyllic landscapes in Third Style wall painting, inspired by a Golden-Age peace and luxury and perhaps also by a reflection of real landscapes encountered in the Hellenistic east. Landscapes from the red and black rooms of the

Fig. 5. Details of columnar structures, black cubiculum (room 15), Villa of Agrippa Postumus at Boscotrecase, ca. 10 BCE. Metropolitan Museum of Art

villa of Agrippa Postumus at Boscotrecase of ca. 10 BCE illustrate this (Figs. 4-5).[21] In addition to columns used on porches or small temple-like buildings, the paintings include a number of freestanding column monuments, each supporting a statue or an urn, and these painted columns could also be read as monolithic shafts of colored marble. Column monuments could have been a valid source for *spolia* columns, especially since the Romans likely took the statues as well.

Column monuments were used as funerary markers throughout the Hellenistic east, and also at Rome. The most famous are the historiated columns of Trajan and Marcus Aurelius, but an earlier example is the 20-foot monolithic Numidian marble shaft for the column that marked the location of Julius Caesar's funeral pyre. A massive interpretation of the same type of monument could have been the Column of Antoninus Pius; the plinth is scaled for a column with at least a 60-foot shaft, along the lines of one still in the quarry at Mons Claudianus.[22]

Then next question is: Why? In what way and for what reasons did this expense and effort make sense to the Romans?

The Roman taste for monolithic columns coincided with a change in building technology. Through the Republican period, Roman builders developed and perfected the use of concrete, in sharp contrast to continuing Hellenistic Greek practices that still preferred to use carefully cut blocks of solid stone joined directly to one another with no intervening mortar. Earlier Greek buildings were essentially post and lintel structures, and this continued to be the practice in most Roman religious buildings, especially the façades. For most other

21 ANDERSON 1987. Columnar buildings also appear in mythological scenes.

22 PEACOCK, MAXFIELD 1997.

large buildings, though, Romans used concrete, usually faced with smaller stones or brick, or cast and molded using formwork. Concrete was initially used in utilitarian structures that needed additional protection from water or fire, but later came to be used in private and public buildings, and eventually temples.[23] The Pantheon is a defining example of the capacity of molded concrete, with its soaring coffered dome encompassing a vast volume. The interior was decorated with monolithic columns, but they do not play a significant structural role. I suggest that as building technology came to rely more heavily on the plasticity of concrete, the structurally obsolete columns became increasingly fetishized.

Large-scale imported stones symbolized the organization of the empire and the over-reaching power of Rome, and prestige accrued to a stone in proportion to the effort expended to quarry and transport it.[24] This is the logic behind Cicero's belittling reply to the citizens of Chios when they proudly showed him their city walls made of the internationally valued, but locally produced, *portasanta* marble: "I would be more impressed if you had made them of travertine."[25] His intention was not to suggest that travertine was a more suitable material—it was weak and ugly by comparison—but huge amounts of it would have had to be brought from far away, and that would have been a feat worth boasting about.

The appeal of monoliths was in part a factor of their sheer mass. To the Roman patron, the more resources that were expended in construction, the greater the potential impact on popular opinion could be. In many projects, megalithic construction should be understood as part of an orchestrated show of bravado. The transport of the elements was daunting, and the arrival of columns at their destination must have been a public spectacle. In fact, the atavistic urge to move and display large rocks continues to present day Los Angeles, where a 340-ton limestone boulder-sculpture was transported to great fanfare and internet documentation, from the quarry to the Los Angeles County Museum of Art, through the streets for nine nights.[26]

Rome had a long history of importing building stone, starting with *grotta oscura* tufa from Veii in the fourth century BCE for the Servian walls, and continuing through Greek marble for manubial temples in the second century BCE. They also had a long history of disguising baser building materials used for columns, including stucco over tufa and travertine at the Temple of Portunus, and stucco over elaborately shaped bricks at the Basilica at Pompeii.

Rome produced monolithic columns at a breakneck pace for about 300 years. Both before and after this period, though, the Romans' desire to build monumental columnar structures was strong, so they made impressive use of the best columns that they could gather together. Some were re-used multiple times in a tight chronology, like Scaurus' original set. Others had longer periods of installation, like the corkscrew columns still at Saint Peter's Church. The continual re-use of the same precious columns persisted for generations, as a rooted means of maintaining a material link with an increasingly distant past.

23 LANCASTER 2005.

24 WILSON JONES 2000, 211.

25 Pliny, *Nat. Hist*. 36.46; WARD-PERKINS 1992, 72.

26 HEIZER 2012.

BIBLIOGRAPHY

ANDERSON, M. 1987: Pompeian Frescoes in the Metropolitan Museum of Art. Metropolitan Museum of Art Bulletin, vol. 45, no. 3. New York.

BURRELL, B. 2015: "What was the Regia in the Roman Theater?", in Z. WEISS *et al.* (eds.): Ehud Netzer Volume, Jerusalem.

CHANIOTIS A. 2008: "The Conversion of the Temple of Aphrodite at Aphrodisias in Context," in J. HAHN *et al.* (eds.): From Temple to Church: Destruction and Renewal of Local Cultic Topography in Late Antiquity, Leiden.

EVANS R. 2007: Utopia Antiqua: Readings of the Golden Age and Decline at Rome, Routledge, 124-125.

FANT J. C 1989: 'Cavum antrum Phrygiae.' The organization of the Roman imperial marble quarries in Phrygia, Oxford.

FANT J. C. 1993: "Ideology, gift and trade. A distribution model for the Roman imperial marbles", in W.V. HARRIS (ed.): The inscribed economy. Production and distribution in the Roman world in the light of *instrumentum domesticum*. Ann Arbor, 145-170.

FISCHER M. L. 1998: Marble Studies: Roman Palestine and the Marble Trade, Constance.

HEBERT L. 2000: The Temple-Church at Aphrodisias, New York University.

HEIZER M. 2012: Levitated Mass. Diorite granite and concrete, Los Angeles County Museum of Art, Los Angeles, CA, 2012. https://collections.lacma.org/node/424258 (4 June 2017).

KINNEY D. 2001: "Roman Architectural Spolia," PAPSoc. vol. 145, no. 2, 138-150.

LANCASTER L. 2005: Concrete Vaulted Construction in Imperial Rome: Innovations in Context, Cambridge.

LONG L. 2012: "Regional Marble Quarries," in RATTÉ, De STAEBLER (eds.): The Aphrodisias Regional Survey, Mainz, 165-202.

PACKER J.E., BURGE J., GAGLIARDO M.C. 2007: "Looking Again at Pompey's Theater", AJA, vol. 111, no. 3, 505-522.

PEACOCK D. P. S., MAXFIELD V. A. 1997: Survey and Excavation, Mons Claudianus 1987-1993. vol. 1: Topography and Quarries, Cairo.

PENSABENE P. 1991: "Reimpiego e nuove mode architettoniche nelle basiliche cristiane di Roma tra IV e VI secolo", Akten des XII. Internatiolen Kongress für Christilche Archäologie, Bonn, 1991, Münster, 1995, 1076-1096.

PENSABENE P. 2002: "Il fenomeno del marmo nel mondo romano", in M. de NUCCIO, L.UNGARO (eds.): I marmi colorati della Roma imperiale, Venice, 3-68.

PHILLIPS L. K. 2006: The Architecture of the Roman Theater, Origins, Canonization, and Dissemination, New York University.

RATTÉ C., De STAEBLER, P. D. 2012 (eds.): Aphrodisias V. The Aphrodisias Regional Survey, Mainz.

RUSSELL B. 2013: "Roman Late-Antique Shipwrecks with Stone Cargoes, A New Inventory", JRA, vol. 26, 331–61.

SALIES HELLENKEMPER G. (ed.) 1996: Das Wrack: Der antike Schiffsfund von Mahdia, Cologne.

VISCOGLIOSI A. 1988: "Die Architektur-Dekoration der Cella des Apollo-Sosianus-Tempels," in Kaiser Augustus und die Verlorene Republik. Berlin, 136-148.

VISCOGLIOSI A. 1996: Il tempio di Apollo in circo e la formazione del linguaggio architettonico augusteo, Rome.

WARD-PERKINS J. B. 1992: Marble in Antiquity: Collected Papers of J. B. Ward-Perkins. London.

WARD-PERKINS B. 1999: "Re-using the Architectural Legacy of the Past, entre idéologie et pragmatism", in G. P. BROGIOLO, B. WARD-PERKINS (eds.): The Idea and Ideal of the Town between Late Antiquity and the Early Middle Ages, Boston.

WILSON JONES M. 2000: Principles of Roman Architecture, New Haven.