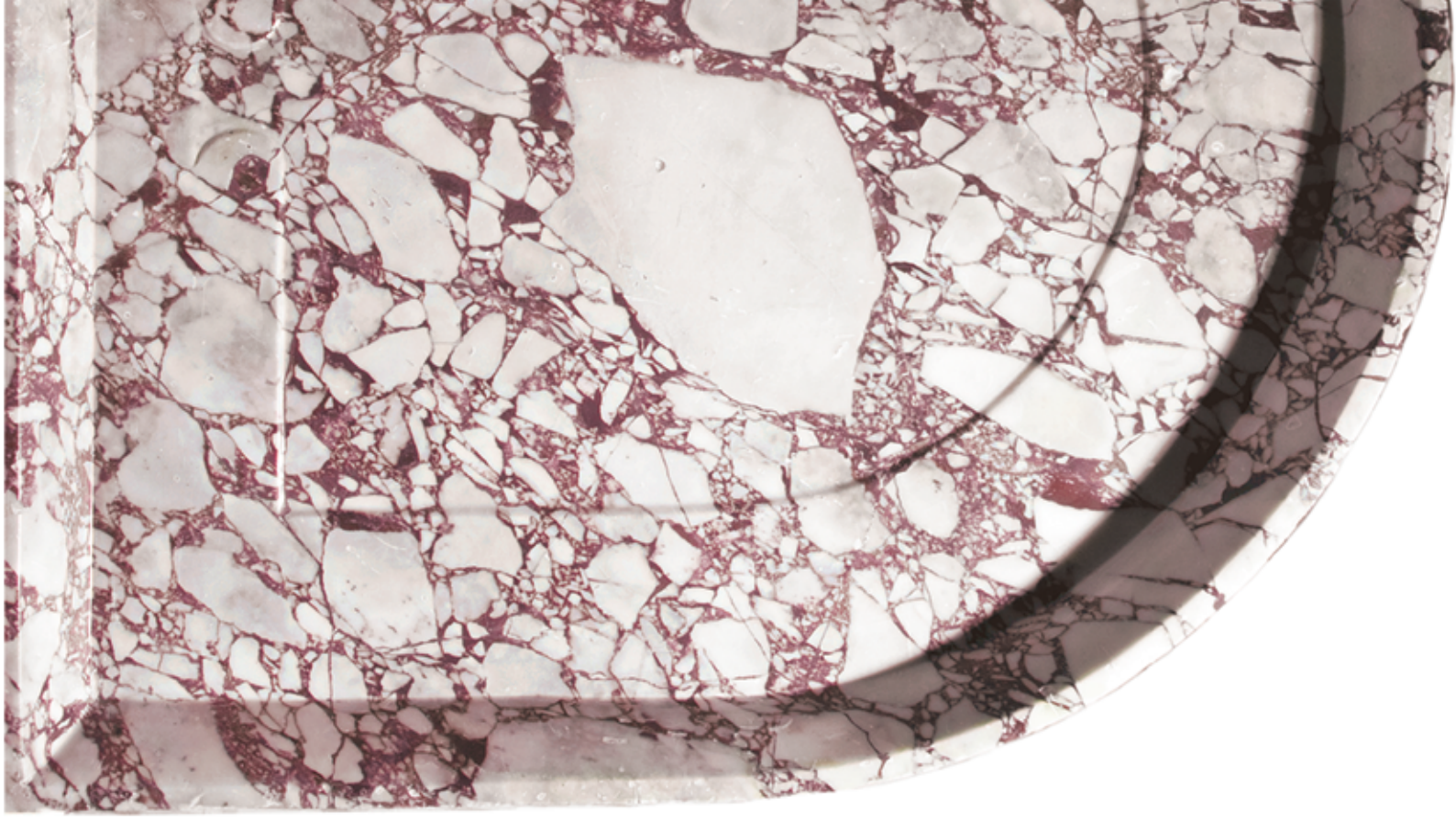
Imperial Porphyry in Roman Britain

F. Williams, David



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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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IMPERIAL PORPHYRY IN ROMAN BRITAIN

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Abstract

Imperial porphyry was greatly admired during the Roman and Byzantine periods because the deep purple of the stone was closely associated with the chosen colour of the Emperor. Outcrops of this hard volcanic rock are extremely restricted and only found in a small area of the eastern Egyptian desert. The quarries were kept under close Imperial control, with the vast majority of the items produced only intended for Imperial use or patronage: sculpture, columns, baths, basins and sarcophagi.

The numbers of imported coloured marbles in Roman Britain are not great and are generally restricted to small individual pieces, many of which show signs of having been cut to shape, suggesting they were employed essentially as a luxury item for decorative purposes in selected buildings of Roman Britain, or perhaps as pietra dura in furniture. Amongst these imported coloured marbles are a small number of pieces of Imperial porphyry, associated with a limited number of sites.

Keywords
Opus Sectile, Wall Veneer, *Pietra Dura*

Introduction

Imperial porphyry (*porfido rosso antico*) was greatly admired during the Roman and Byzantine periods because the deep purple of the stone was a colour worn exclusively by the Emperor himself (Fig. 1, massive rare purple porphyry blocks continuing the ideology of the exclusivity of the emperor, even in death). When Constantine was converted to Christianity in AD 324, purple was also adopted as a church colour. Imperial porphyry is an extremely hard volcanic rock, so much so that during its reuse in the 16th century, Giorgio Vasari mentions that it could only be worked by tempering tools in goat blood (BROWN 1907, 31). An exaggeration no doubt, but nevertheless an indication of the difficulties of working the stone. The rock itself is spotted with white and pink plagioclase feldspar inclusions and has been described as a quartz-andesite (BASTIA *et al.* 1980, 122-123; WILLIAMS-THORPE *et al.* 2001, 306) or a porphyritic dacite (KLEMM, KLEMM 2008, 274-276; Fig. 2 in the hand-specimen and Fig. 3 in thin section). The distinctive purple colour of the groundmass is due largely to the presence of the mineral piemontite, a manganese-rich member of the epidote group.

Fig. 1. Massive Imperial Porphyry sarcophagus displayed outside the Istanbul Archaeological Museum; originally housed in the Imperial church of Hagia Eirene (photo: author)

The outcrops of this unique and distinctive looking purple rock are extremely restricted and are only found in a small, remote area of the Red Sea Mountain range of the eastern Egyptian desert, at Mons Porphyrites, modern Gebel Dokhan, the "smoky mountain" (PEACOCK, MAXFIELD 1994, 24-26; SAMPSELL 2003, 161-162; MAXFIELD, PEACOCK 2001, *passim*; KLEMM, KLEMM 2008, 274-280). There are three main quarry areas at Mons Porphyrites, each located on a mountain top, known in modern terms as Lykabettos, Lepsius and North-West (MAXFIELD, PEACOCK 2001, 2). These quarries as a whole operated from the Tiberian period until the fifth century AD and were kept under close Imperial control. This is one of the driest parts of the world, which must have presented difficulties in provisioning the large workforce that was needed to extract the rock from high up the mountains, bring it down to base level and then roughly work it to take off the surplus stone. This, combined with the logistical problems of shipping the stone over desert and by ship to Rome, the principal destination, meant that a considerable effort was required to obtain a rock that, after all, only had decorative applications. However, this may in part have

Fig. 2. Texture of Imperial Porphyry, Lykabettus quarries, Mons Porphyrites (photo: author)

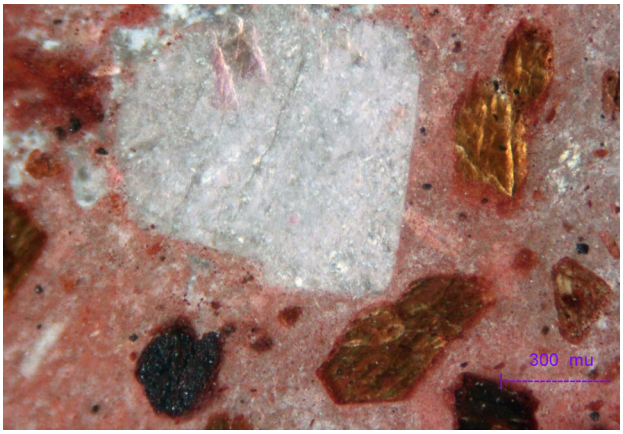

Fig. 3. Thin section showing the porphyritic texture of Imperial Porphyry (crossed nicols x 20). This shows a very fine groundmass with a large greyish-white lath-shaped phenocryst of altered plagioclase feldspar surrounded by coloured grains of basaltic hornblende (photo: author)

added to the stone's attractiveness, for it was a physical reminder of the power of the Roman Emperor, who could command large decorative stones to be brought to the capital from an inhospitable desert on the very outskirts of the Empire. This is a view already cogently argued by David Peacock to explain a similar situation in Egypt at the nearby Roman Imperial granite quarries of Mons Claudianus, which produced the famous *granito del foro* (PEACOCK 1992, 27-28).

Imperial porphyry was used selectively for sculpture, columns, baths, basins, sarcophagi and *opus sectile*, many of these items roughly finished in the quarries, and was almost always intended for Imperial use or patronage (MARMI ANTICHI 1998, 274; MALGOUYRES 2003, 27-43). Significant quantities of this stone are found in the Trajanic building projects at Rome but it became even more popular later, during the Tetrarchy and especially the Constantinian period, and its Imperial

Fig. 4. Statue of the Tetrarchs in Imperial Porphyry, fixed to a corner of St. Mark's Basilica, Venice (originally from the Philadelphion, Constantinople) (photo: B. Morris)

connotations ensured its continued popularity with the Byzantine Emperors (Fig. 4). In fact, so much Imperial porphyry was taken from Rome to Constantinople at this time, especially in the form of columns, that it was apparently known there as the "Roman stone" (MAXFIELD, PEACOCK, 2001, 320). Moreover, the "birthing" room in the Great Palace at Constantinople was clad with sheets of porphyry and called the *porphyra*, with the royal children born there given a special status as *porphyrogeniti*, hence the phrase "born to/in the purple" (MAXFIELD, PEACOCK 2001, 320). However, unlike the more exclusive *granito del foro*, small quantities did enter the private market, being used mostly as wall veneer, floor tiling and inlay, and the stone is listed in Diocletian's Price Edict of AD 301, which puts a high price of 250 denarii on a foot of porphyry (MALACRINO 2010, 30). The fact that the stone was such a rare commodity commanding a prodigious price, meant that it could only be afforded by the nobility; it therefore became a mark of rank and prestige. The special significance of the stone can also be seen in the fact that it was used to denote "Imperial" authority in both secular and religious contexts for many centuries after the fall of the Roman Empire (PEACOCK 1997, *passim*).

	Colchester	Fishbourne	London	Canterbury	Lincoln
Africano	59	0	0	0	0
Breccia Corallina	53	0	0	7	0
Cipollino	97	0	13	0	14
Giallo Antico	143	0	0	0	0
Porfido Verde	34	3	3	5	3
Pavonazzetto	181	1	20	4	6
Purbeck	182	630	71	Large quantity	1
Purple Porphyry	18	0	1	4	0
Rosso Antico	54	0	0	3	3
Rouge Antique	1	0	0	0	0
Travertine	1	0	0	0	0
Verde Antico	1	0	0	2	4
Campan Vert	0	22	15	0	0
Campan Rose	0	52	0	0	0
Pouillency Rose	0	62	0	0	0
Breccia Gialla	31	0	0	0	0

Fig 5.
Numbers of Roman coloured marbles found at Fishbourne, London, Canterbury, Lincoln and the 4th century building at Colchester (*cf.* PEACOCK, WILLIAMS 1999)

Marble in Roman Britain

Exotic marble (i.e. different types of decorative stone that would take a high polish) was imported into Roman Britain from many sources all over the Mediterranean region and was used to decorate the more important urban buildings as well as the more luxurious villas. It was undoubtedly perceived as a symbol of wealth and power because it was imported, originating from some distance away, and thus expensive (ISSERLIN 1998, *passim*). It is most probable that this form of decoration was always limited to a few wealthy citizens who were receptive to new styles from abroad and could afford to pay well for their tastes. The thinness of many of these extant foreign marble fragments is indicative of their value and points to their use as wall sheathing and *opus sectile*, or perhaps as *pietra dura* in furniture, where the light-reflecting properties of the stones could be shown off to advantage. Moreover, these fragments were essentially small and easily transported, which made them a different proposition logistically to the massive and heavy marble columns and statues found in other Roman provinces nearer to the actual quarry sites. Small pieces of coloured marble have been found in some quantity at town sites such as London, Colchester, Canterbury and Lincoln (PEACOCK, WILLIAMS 1999, 355-356). They are, however, mostly rare in British villas, with the large villa or "palace" at Fishbourne being alone in producing sizeable quantities (CUNLIFFE 1971, 15-37). Smaller numbers have come from villas such as Angmering and Woodchester and seem to date to the Flavian-Trajanic period (CLARKE 1982, Table 1). No marble columns have been found in the British province and comparatively few pieces of marble sculpture are known, with the exception of two sites, the Walbrook Mithraeum in London (TOYNBEE 1986, *passim*) and Woodchester Villa, Gloucestershire (CLARKE 1982, 207-209).

From this it is clear that imported decorative marbles were used far more sparingly than on the continent. The white marbles from Roman Britain (possibly representing some 30-40% of the total marble imports) are more difficult to characterize than the coloured ones that reached the province. A visual/hand-specimen identification based on the brightness of the white colour or the

Fig. 6. Polished slab of Purbeck marble showing texture (photo: author)

Fig. 7. Left, small piece of shaped Imperial Porphyry from Rivenhall Roman Villa. Right, small piece of damaged Imperial Porphyry from excavations at Billericay (photos: author)

grain size, etc., is an uncertain method and can often be wrong. Indeed, samples from the same quarry can often be morphologically different, while samples from different quarries may have similar visual characteristics. Many archaeologists have assumed that the major source of white marbles found in Roman Britain are Italian on grounds of proximity and the prodigious output of the Carrara quarries. The late 1st century Richborough Monument, the only known building in Roman Britain to have external marble cladding (white), probably does suggest direct shipment from Italy, given the site's geographical position (STRONG 1968, 42).This view seems to be supported by spectroradiometry tests carried out at the University of Southampton, which point to a Carrara origin for the samples tested.

In Roman Britain, most of the coloured marble seems to have originated from the eastern Mediterranean region (particularly Asia Minor and Greece) or from the Pyrenees (see fig. 5; PEACOCK, WILLIAMS 1999, *passim*). Pritchard's (1986, fig. 4) survey of marble in Roman London identifies 21 different types found on 44 sites. This wide variety suggests that London may to some extent have been a secondary source of supply for other British sites, although differences in the pattern of distribution regarding Campan Vert from the Pyrenees may indicate other possibilities (PEACOCK, WILLIAMS 1999, 355). However, the current evidence shows that the overall sources of supply of coloured marbles to Britain were not constant and that chronological/geographical differences played a part in importation, due perhaps to difficulties of supply or changes in fashion. To supplement the relative paucity of coloured imported marbles, local materials, usually limestones that would take a fine polish (*lumachella* marbles), were used to a certain extent as decorative stones. The most important of these was Purbeck marble, which was exploited soon after the Roman Conquest. This is a hard freshwater limestone from the upper part of the Jurassic and found only on the Isle of Purbeck, south-eastern Dorset, though it had a very wide distribution. This dark coloured limestone is composed very largely of the fossilized shells of the small freshwater gastropod *Viviparus cariniferus*. The stone takes an exceptionally high polish, showing to good effect the many small, closely packed, circular fossil shells set in a fine-grained matrix, which combine to make a distinctive and attractive pattern on a smooth surface (Fig. 6). The colour is normally a bluish-grey but it can have a greenish or reddish tint.

Imperial Porphyry in Roman Britain

Imperial porphyry seems to have been used very sparingly in Roman Britain, a conclusion based on finds from the major towns and villas (Fig. 5 and below). In addition, there are no examples in a Roman context of that other Imperial Egyptian stone, the granodiorite from Mons Claudianus, the famous *granito del foro*, which overall seems to have had a much more restricted distribution in the Roman Empire. Thin strips of Imperial porphyry, veneer or *opus sectile,* it has been suggested, first appear in late 1st century contexts at the southern postern of the Richborough Fort (WILLIAMS-THORPE *et al*. 2001, Table 7.3) and at Building 2 at Rivenhall Villa, 10 miles south-west of Colchester (RODWELL, RODWELL 1973, 120). Imperial porphyry is also found in Canterbury and London, but most remarkable of all is the scatter of small pieces at rural establishments, such as Rivenhall, above (*ibid*; Fig. 7, left) and also Billericay (MEDLYCOTT *et al*. 2010, 78, SF173; Fig. 7, right) in Essex and Piddington Villa in Northamptonshire (FRIENDSHIP-TAYLOR, FRIENDSHIP-TAYLOR 2015, 6; fig. 8, left). It has been suggested, at least for Piddington, that the small shaped piece of Imperial porphyry from the site may have been part of a piece of *pietra dura* style furniture, in this particular case a table-top or chair-back

Fig. 8.
Left, small piece of shaped Imperial Porphyry, on display at the Piddington Roman Villa Museum. Right, possible arrangement of an inset Pietra Dura design for a piece of furniture, on display at the Piddington Roman Villa Museum (photos: author)

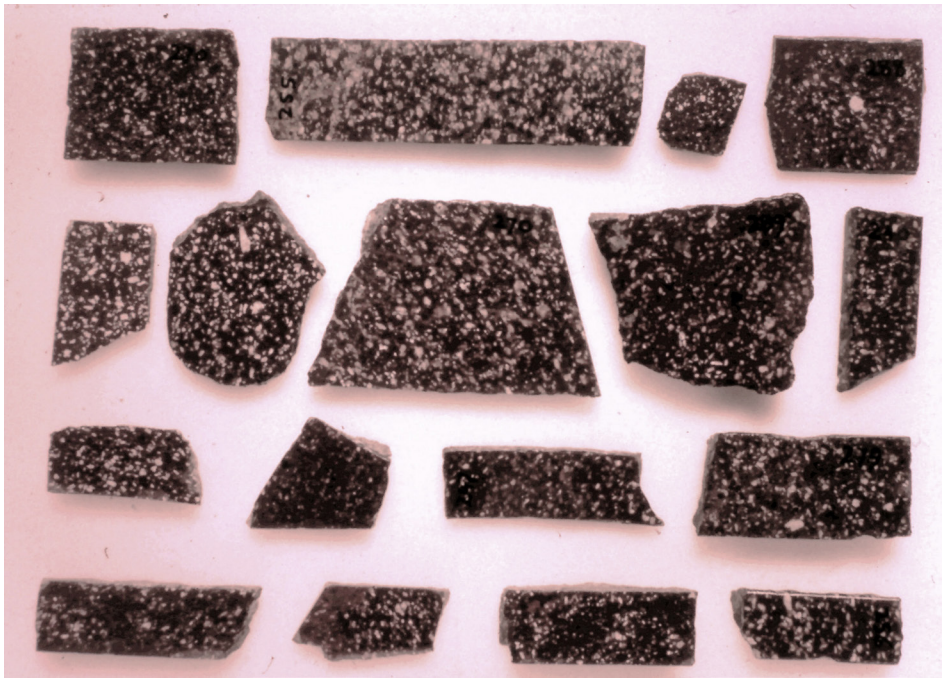

Fig. 9.
Imperial Porphyry from Colchester (photo: author)

(FRIENDSHIP-TAYLOR, FRIENDSHIP-TAYLOR 2009, Pl. 10; see also Fig. 8, right and ISSERLIN 1998, 145). This suggestion has much to commend it, since the single pieces from Rivenhall, Billericay and Piddington are quite small and, given how expensive this stone appears in Diocletian's Price Edict (MALACRINO 2010, 30), the cost of producing a meaningful number for a pattern on wall veneer or *opus sectile* would have been quite high. Instead, a small amount, perhaps only one or two pieces, used in a limited way along with other "exotic" marbles inlaid for *pietra dura* style furniture, would create an equally impressive picture of luxury, as presumably was the case with the inlaid furniture at Fishbourne (CUNLIFFE 1971, 15-37). This view would also accommodate the notion of "Imperial gifts" to important local dignitaries. Much less likely does it seem that somehow these three pieces could have been deposited on their respective sites in the post-Roman period, when small pieces of marble, especially *Porfiro Verde* but on rare occasions also red porphyry, seemed to have been brought back to Britain and Ireland from Italy by pilgrims as souvenirs (*cf.* LYNN 1984, *passim*). These appear to be secure finds and there seems no good evidence not to accept a Roman date for them.

The largest Imperial porphyry group in Roman Britain comes from Colchester, though even here we are talking about very small amounts, used again as wall veneer or *opus sectile*, more probably the latter (Fig. 9). These have mainly been recovered from excavations associated with the site of the Temple of Claudius at Colchester, the early Roman capital of the province (see refs. in DURY 1984). It is significant though that the wide range of exotic marbles associated with the site, which also included material from Asia Minor, Greece, the Aegean and North Africa (Fig. 10), almost certainly come from Period IVA, the Constantine reconstruction, when major alterations were made to the Temple site (*ibid.*).

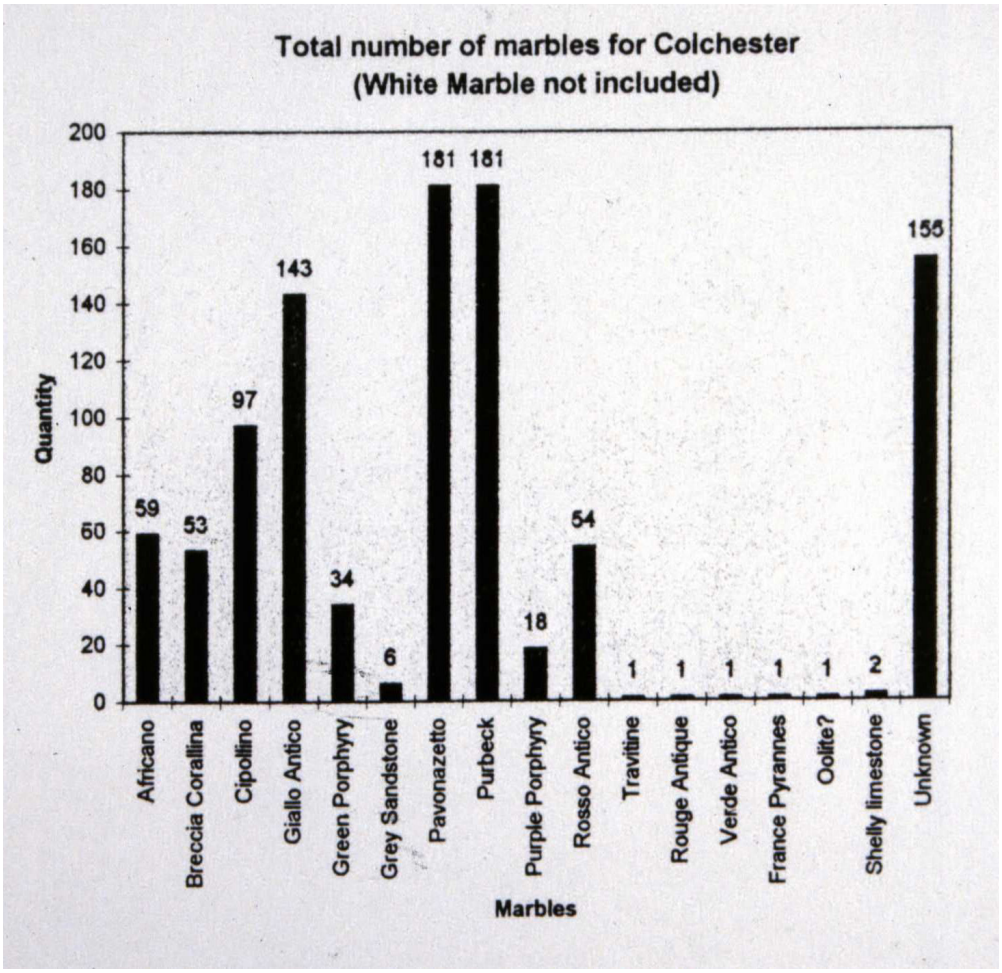

Fig. 10.
Graph to show amount and type of marbles recovered from early 4th century layers at Colchester

There is no good evidence for true marble occurring in the early phases of the building, which was started *c.* AD 54 and then, following its destruction by Boudicca in AD 61, reconstructed shortly afterwards, A.D. 62-100 (*ibid.*). At some stage in the early 4th century AD, a large hall or basilica-type building, perhaps a reception or audience hall, was constructed on the podium of the Temple (*ibid.*). The positioning of this building on a sanctified Imperial Temple site suggests that it must have been built sometime after the Edict of Milan in AD 313, by which Constantine and Licinius established religious tolerance for Christianity within the Roman Empire, the former becoming a great patron of the Church (BOWDER 1978, 28-29, Chaps. III and IV). It is difficult to know whether at this late date these small pieces of Imperial porphyry from Colchester were re-cycled from other buildings, either from Britain or more likely from another nearby province given the sparse occurrence of this stone at other sites in Britain. The alternative, which on the whole seems less likely given the small size and quantity of this assemblage, is that they were specially imported directly from the Mons Porphyrites quarries in Egypt, some of which were certainly still operating as late as the late 4th / early 5th century (MAXFIELD, PEACOCK 2001, 319-321).

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