

### III. PRODUCTION AND DISTRIBUTION DECORATIVE BUILDING STONE

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#### 1. Research aims and objectives

The aim of this study is to establish a data-set recording the use of veneer in Rome's hinterland from a variety of contexts dating to the late Republican and Imperial periods. With the emphasis on private construction and commercial spaces, this data provides a framework to model usage, and contrast documented use in properties of aristocratic elite and public construction in Rome.

##### *i. Primary objectives*

- Evaluate data recorded by this project with research to date of Rome's marble trade, to gain insights into its development and workings from the perspective of veneer.
- Trace the diffusion of veneer display across the socio-economic spectrum and identify attributes of use evolving over time that differentiate display.
- Identify factors determining and influencing patterns of use.
- Evaluate this type of material culture as a means to identify status in the archaeological record, providing greater resolution to the interpretation of these finds as indicators of settlement texture and economic development.

#### 2. Data collection

Data collection for this study included recording veneer preserved *in situ* from a variety of urban and rural sites in Rome's hinterland dating to the late Republican and Imperial periods. This was to examine both archaeological context and the criteria of technique, design and material provenance. Further it identifies the characteristics of veneer when employed to differentiate a spectrum of interior space, whether in a domestic or commercial sphere. Of particular importance is the investigation of the impact upon display in private construction by a marble trade increasingly under imperial administration and control, and subject to periods of reorganisation. These are argued to have taken place first during the Flavian period possibly resulting from Domitian's / Trajan's ambitious building programmes in Rome, with a further episode occurring during the Hadrianic period (Ward-Perkins 1992; Waelkins *et al.*, 1988; Fant 1993).

A major element of this research further derives from processing finds of ornamental stone collected from field survey, as a part of the British School at Rome Tiber Valley Project's re-evaluation of materials collected by John Ward-Perkins' South Etruria Survey. A total of some 1,305 fragments of marble and coloured stone from 346 sites were collected by this pioneering survey, providing a unique opportunity to examine the distribution of this element of the material culture on a regional scale. The descriptive analysis of individual pieces with evaluations of provenance now forms a part of the Tiber Valley Project database.

### **3. Analysis**

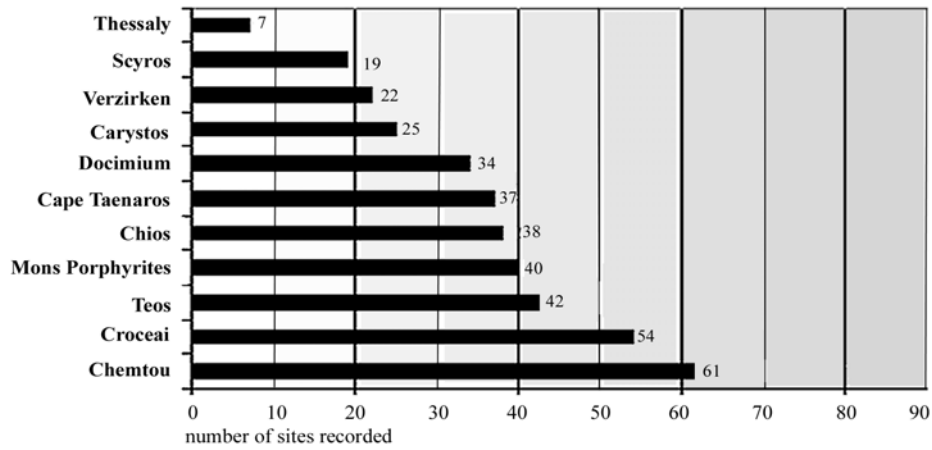
Evaluations of provenance of the South Etruria finds were achieved by the macro and micro examination of this assemblage, referencing comparative material drawn from the stone / marble collection at the British School at Rome. This extensive resource provides samples from the major Roman quarry areas of the Mediterranean - North Africa, the Aegean and Egypt. A total of 93 finds of white marble were also characterised in a multivariate archaeometric study by Peter Jongste of the University of Leiden, whose analysis combined neutron activation with isotopes (<sup>18</sup>O and <sup>13</sup>C) and ICP-AES (atomic emission spectrometry) to attain provenance. This study was part of a PhD project that analysed marble from a range of sites in Rome and its hinterland to identify different patterns of use (Jongste 1995).

### **4. Results: Finds of ornamental stone from the South Etruria Survey**

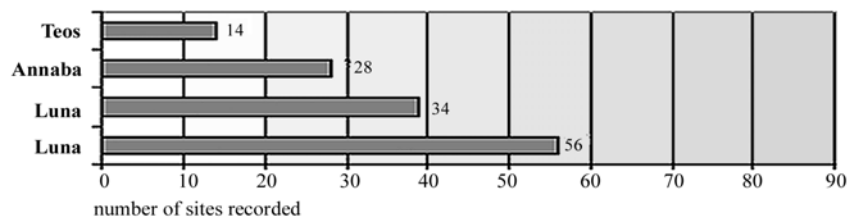
This brief summary of the ornamental stone data from the South Etruria Survey, describes finds of veneer in various shapes and forms and focuses on their provenance. These were quantified according to the frequencies of their distribution and known provenance in order to identify and illustrate the nature of the diversity of quarries and stone varieties (54 in all) represented in the Tiber Valley. The results of this study are illustrated in chart form below. The data is grouped in classes according to colour, with one grouping featuring Italian varieties of limestone and argillaceous deposits exploited from the Apennines during the Republican period prior to the development of Rome's marble trade. To illustrate the geographical provenance and relative demand of marbles occurring in South Etruria, the distribution frequencies of individual varieties were quantified and ordered sequentially and placed in map format. The provenance mapping of individual varieties used for this study was compiled using source data (Gnoli 1988; Borghini 1989; Dodge and Ward-Perkins 1992; Brown and Harrell 1995; Lazzarini 2002).

**The impact of Rome's diverse marble trade together with local stone in the Tiber Valley:  
The provenance of ornamental stone from the South Etruria survey**

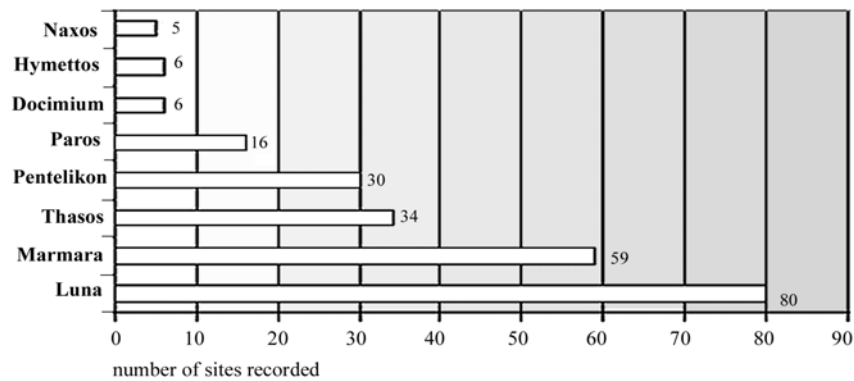
**Quarries producing polychrome stone  
(imports recorded from 7+ sites)**



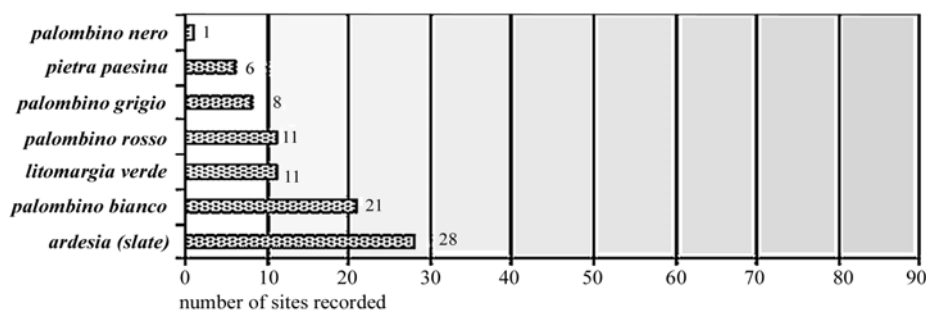
**Quarries producing varieties of grey marble**



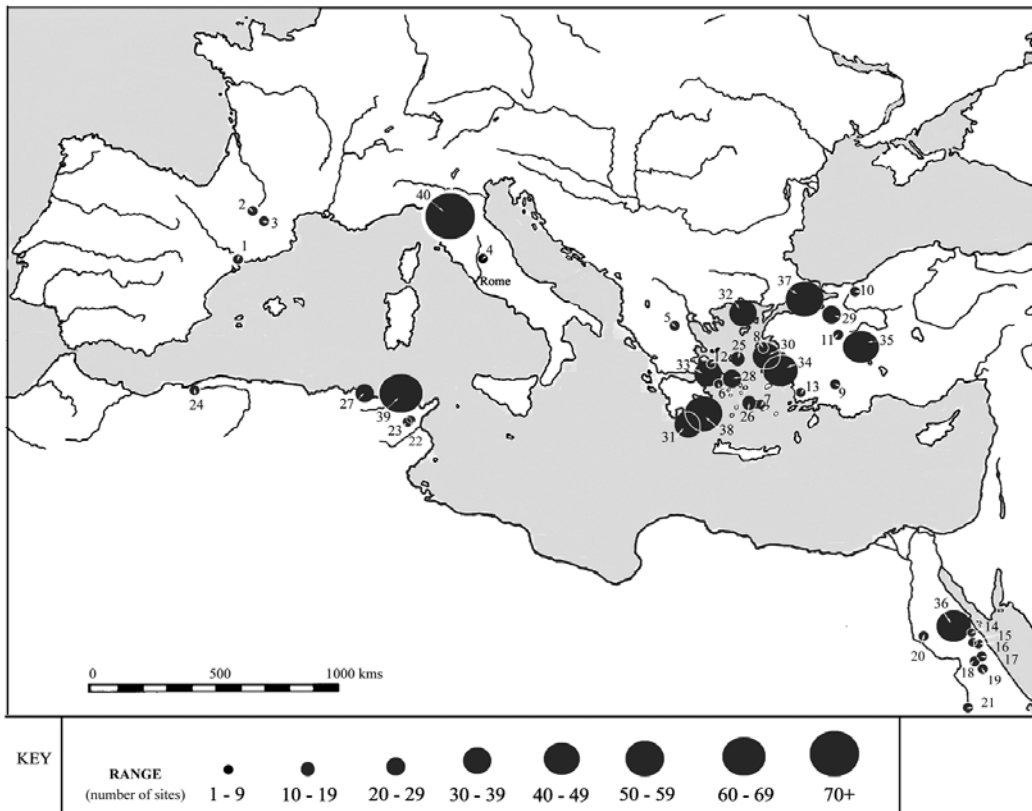
**Quarries producing varieties of white marble**



**Italian varieties from the Apennines  
(exploited during the Republican period)**



The relative impact of different quarries from Rome's marble trade in the Tiber valley:  
The provenance of ornamental stone from the South Etruria survey



The provenance of marble and coloured stone finds quantified according to distribution

RANGE (number of sites)	1 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 +	
QUARRY LOCATION	1) Tortosa 2) Campan 3) Aubert 4) Cottanello 5) Thessaly 6) Mount Hymettos 7) Naxos 8) Lesbos 9) Hierapolis 10) Sangarius valley 11) Aezani 12) Eretria 13) Iasos 14) Wadi Umm Balad 15) Mons Claudianus 16) Wadi Barud 17) Wadi Semna 18) Wadi Maghrabiya 19) Bin Umm Fawakhir 20) Hatnub 21) Aswan 22) Djebel Aziz 23) Gebel Oust 24) Orano	25) Scyros 26) Paros 27) Annaba 28) Carystos 29) Verzirken	30) Chios 31) Cape Taenaros 32) Thasos 33) Mount Pentelikon	34) Teos 35) Docimium 36) Mons Porphyrites	37) Marmara 38) Croceai	39) Chemtou 40) Luna			

VARIETIES 1) Broccatello 2) Cipollino mandolato 3) Bianco e nero antico 4) Cottanello 5) Verde antico 6) Hymettium marble 7) Naxian marble 8) Bigio lumachellato 9) Alabastro fiorito 10) Occhio di pavone rosso 11) Breccia pavonazza di Ezine 12) Fior di pesco 13) Cipollino rosso 14) Granito verde fiorito di bigio 15) Granito del Foro 16) Granito bianco e nero 17) Granito verde della sedia di San Lorenzo / di San Pietro 18) Eufotide 19) Granito del uadi Favakhir 20) Alabastro egiziano o cotognino 21) Granito rosso 22) Nero antico 23) Alabastro del Gebel Oust 24) Alabastro a pecorella 25) Breccia di Sciro di Settebasi 26) Parian marble 27) Greco scritto 28) Cipollino 29) Breccia corallina / Breccia nivolata rosa 30) Portasanta 31) Rosso antico 32) Thasian marble 33) Pentelic marble 34) Africano / Africano verde / Bigio antico 35) Pavonazetto / Docimium marble 36) Porfido rosso 37) Proconnesian marble 38) Porfido verde di Grecia 39) Giallo antico 40) Luna marble / Bardiglio / fiorito.

The picture that emerges, from illustrating the provenance of ornamental finds, shows how closely display in rural and suburban landscapes of Rome's hinterland reflect the evolving characteristics of use in public building in the city of Rome. This is clearly illustrated by the immense distribution of white marble from Luna alongside significant quantities of imports from Marmara; reflecting not only the importance of *marmor Lunense* in public construction in the city but also the change to *proconnesian* marble from Marmara (Bruno *et al.*, 2002). However, the group most strongly reinforcing this point are the costly polychrome marbles – associated with *luxuria* and status. This is evidenced by the marked impact created by a small number of quarries, which produced some of the most important and prestigious varieties of the Roman world, comprising *giallo antico*, *africano*, *portasanta*, *pavonazzetto*, *rosso antico*, *cipollino* and the porphyries: *porfido rosso* and *porfido verde*. These were the stones of choice for public building and private elite construction in the city of Rome, which can be seen as influencing local tastes in the area of Rome's hinterland. The studies *in situ* by this project suggest that this general pattern of use outside Rome was firmly established by the Flavian period, and that the results obtained from field survey are not simply that of reuse in later periods. A major presence in this data concerns quarries of known imperial ownership such as Luna, Marmara, Paros, Chemtou, Teos, Chios, Docimium, Carystos, (Fant 1993). Despite the lack of epigraphic evidence, the quarries on Croceai, Cape Taenaros, Thasos and Pentelikon are also likely to have been imperial (Dodge 1991). The fairly substantial presence of marbles from these quarries in the South Etruria Survey (comparable to demand within imperial property) may well be a significant indication of imperial working.

## **5. Publication**

The full results from the study of ornamental stone finds from the South Etruria Survey, combining provenance with details of morphology, should ideally be combined with ceramic data and site details from the Tiber Valley Project database, in order to present a fuller picture for publication.

## **6. Future research directions**

The Italian repertoire of ornamental stone comprising exploitation from the Apennines was extensive and played an important role in interiors to decorate floors during the late Republic. This is demonstrated by the evidence of their display in public building and from fairly modest to lavish houses including some of the most well known sites preserved in the archaeological record including; The House of the Faun, House of the Griffins, Villa of Livia and Settefinestre. Unlike many of the marble varieties, these are not widely recognised which was one of the factors influencing the modest quantities collected by the South Etruria Survey. Detailed provenance studies of this repertoire and nature of their exploitation has attracted little archaeological attention to date; overshadowed by marble and imported stone. The obscurity of these varieties has also been compounded by the fact that the majority cannot sustain a polish, thereby, not attracting much attention in Medieval periods, consequentially, for most, no specific nomenclature exists. Ironically, some of these varieties are actually employed in present day construction, but in the production of cement.

## 7. References

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