

The coloured stones and marbles decorating the Odeion of Pompeii

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Abstract – The theatre area of Pompeii is located in the southwest region of the ancient town. It consists of the *Quadriporticum* together with the *Large Theatre* and the *Odeion*, the latter two structures forming a unitary complex, located one next to the other and very similar for their building structure and materials. The *Odeion* is among the best preserved architectural monuments of Pompeii. Built in 80 BC, it was a smaller roofed theatre (*theatrum tectum*) hosting around 1500 spectators and devoted to shows and musical performances. The walls of the building are in *opus reticulatum* and *opus incertum*, with brick “sail” cladding in some sections and in the door jambs. This small theatre was decorated with second-style wall paintings and marble *opera sectilia* of which today remains evidence in the floor of the semicircular orchestra. The identification of the exotic coloured stones and marbles still *in situ* in the Odeion is here presented together with some general information about their origin, use and diffusion in the Mediterranean provinces of the Roman Empire.

I. INTRODUCTION

The study of the coloured marbles used at Pompeii for decorating public and private buildings has already yielded some interesting outcomes about the marbling phenomenon in this provincial town of the Roman Empire. A general research on the introduction of coloured marbles in Pompeii has shown that shortly after Rome, since the late Republican age, many Greek, Micro Asiatic and Italian lithotypes were imported [1]. The main monuments already investigated for studying their architectural marble elements and decorations are the Forum, the Theatre, the Temple of Fortuna Augusta, the Building of Eumachia [2-7]. However, much more still need to be done to have an exhaustive picture of the phenomenon.

The theatre area of Pompeii (Fig. 1) is located in the southwest region of the ancient town. It consists of the *Quadriporticum* together with the *Large Theatre* and the *Odeion*, the latter two structures forming a unitary complex, positioned one next to the other and very similar for their building structure and materials.



Fig. 1. Bird's eye view of the large and small theatres of Pompeii. After William Henry Goodyear - Brooklyn Museum, Public Domain.

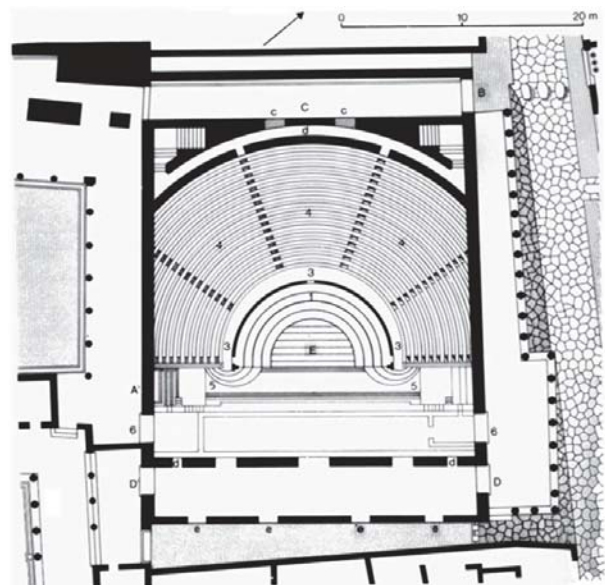


Fig. 2. Plan of the Odeion [8].

The Odeion (Fig. 2) is among the best preserved architectural monuments of Pompeii. Built in 80 BC, it

was a smaller roofed theatre (*theatrum tectum*) hosting around 1500 spectators and devoted to shows and musical performances. The walls of the building are in *opus reticulatum* and *opus incertum*, with brick “sail” cladding in some sections and in the door jambs. This small theatre was decorated with second-style wall paintings and marble *opera sectilia* of which today remain evidences (even if with large integrations) in the floor of the semicircular orchestra (Figs. 3-4).



Fig. 3. The Odeion (a) from the perspective of the middle cavea; (b) view of the auditorium and orchestra separated from the scene by the Euripus.

II. THE MARBLE DECORATION

The marble decoration of the Odeion is visible exclusively in the floor of the orchestra's hemicycle which has been largely restored and integrated during the – philologically questionable – restoration works made on the monument in the two past centuries after its rediscovery (excavation dates: 1769, 1792-1795). An inscription in bronze characters, of which only the hollows were found at the time of the excavation, attributed to the duovir Marco Oculatio Vero, who lived in the Augustan age, the construction of the floor, which was completed using the funds destined to the theatrical

performances [9].

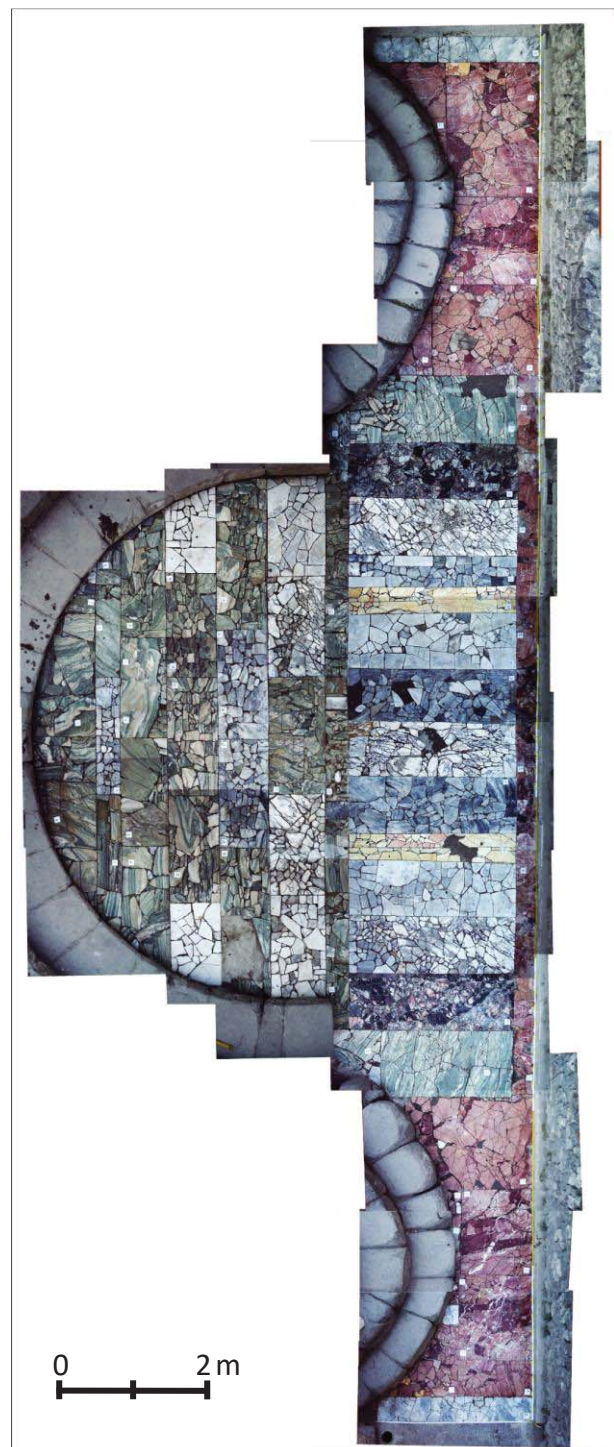


Fig. 4. Photocomposition of the marbles used in the floor of the orchestra.

A. Catalogue of ancient stones and marbles identified

A detailed catalogue of the exotic coloured stones and marbles still in situ in the Odeion has been realised.



Fig. 5. Detail of some of the main varieties of ancient stones and marbles present in the reconstituted opus sectile of the Odeion.

The identification of the coloured lithotypes is based entirely on visual examination and on the experience of the present authors. The nomenclature here adopted for the coloured stone varieties is that used in the classic modern studies of ancient marmology [10-13]. Among all the coloured lithotypes present (Figs. 4-5), the Greek ones are in a large majority, even on a quantitative basis; in particular, the *cipollino verde* (or *marmor carystium*, from Karystos and Styra in the Euboea island), the *portasanta* (or *marmor chium*, from Latomi, central East of Chios, in the homonymous island) and the *settebasi breccia* (or *marmor scyreticum*, from many localities of the Skyros island) are very abundant, while the presence of *fior di pesco* (or *marmor chalcidicum*, from Eretria, in Euboea) and *rosso antico* (or *marmor taenarium*, from Cape Mapatan and many other localities of the Mani peninsula) seems occasional.

Microasiatic (Turkish) marbles are also well represented: *marmo africano* (or *marmor luculleum*, quarried near the ancient town of Teos, nowadays Sığacık, in the Izmir Province), the *breccia corallina* (or *marmor sagarium*, from the Vezirhan village, in the Bilecik Province), the *pavonazzetto* (or *marmor phrygium*, from Iscehisar, in the Afyon Province), and *greco scritto* [14-16] (probably from the quarries near Ephesus; Figs. 4-5).

On the contrary, *giallo antico* (or *marmor numidicum*, from the ancient Simitthus, today Chemtou, in Tunisia) is the only North African lithotype present, whereas the white and gray marbles are Italic (*lunense* and *bardiglio* from Carrara¹), as well as the so-called Sarno stone

¹ *Marmor lunense* is the Latin name given by the Romans to a series of true marbles (geologically dating to the Hettangian age) ranging from absolute white (also called *statuario* in Italian) to dark gray (*bardiglio*), with uniform colour and texture, or one varying from veined (*venato*) to spotted, and brecciated (*calacatta*). They were (and still are) quarried in the Apuan Alps (along the Torano, Miseglia, Colonnata valleys [17]) located near the present town of Carrara. The most famous and prized variety is the "statuary", perfectly white and of excellent sculpting quality, quite rare and found especially at the end of the Torano valley, while the other varieties prevail in the Miseglia and Colonnata valleys. All types were locally used from the 5th century BC by the Etruscans, then, in the Hellenistic period (mid 1st century BC), also outside Tuscany and Latium [18-19]. *Marmor lunense* was first introduced in Rome in Caesarian times, and then exploited massively in the I and II c. AD, and again from the Late Middle Ages. It is largely extracted and exported worldwide in the present days for statuary and architecture. The overall petrographic characteristics of all these marbles are as follows: main mineral is calcite, sometimes with small amounts of dolomite, forming a mosaic of crystals, rarely foliated and with fine grain size (normally with an average value below 1 mm and MGS < 2 mm), with accessory minerals such as quartz, twinned albitic plagioclase, K-micas and a more or less abundant grey pigmentation due to finely

(quarried in the region) and the local volcanic tuff, the latter used for various architectural and decorative elements of the building (e.g. steps, balustrades, telamons, etc.).

Information about all of the ancient stones and marbles used in the Odeion are reported below.

Africano: the modern name comes from a mistranslation found in early literary sources, whereas the Latin *marmor lucullaeum* is associated with the consul L. Licinio Lucullo, who was the first to introduce it to Rome, probably in the first half of the I century B.C. (it was amongst the first of the coloured marbles imported into the capital). The holotype (i.e. the most typical variety) is a polygenic calcareous metabreccia with clasts that are generally whitish with pink spots, but may also be greyish, black, pinkish or blood-red, set in a brownish matrix, which may also be a more or less intense green colour depending on the presence of chlorite. This breccia was considered so extremely beautiful and precious (it was amongst the most expensive in the Edict of maximum prices issued by the Emperor Diocletian) that all its source quarries, situated near the ancient city of Teos, in the vicinity of the present-day village of Sigacik, in the province of Izmir, were exploited to exhaustion. From the II century A.D. these quarries also yielded a variety of *bigio antico* (Brilli et al., 2012; Raneri et al., 2020), with production probably forming the focus once supplies of the finer breccia were depleted. *Marmor lucullaeum* was used, especially in the Central Mediterranean area, mainly for columns and cladding, and more rarely for basins. Both the black matrix variety (the more abundant) and the more beautiful green matrix type are to be found in the Odeion.

Breccia corallina: the name reflects its breccia-like appearance, with whitish or pinkish clasts, mainly a centimetre in size, and the typical coral pink colour of the matrix. It was quarried from the very earliest imperial age in Bitinia, in the present-day Turkish province of Bilecik. The most important quarries were found near the village of Vezirhan, beside a tributary of the River Sakarya, which is recalled in the ancient name of the marble (*marmor sagarium*); there are other quarries in several parts of the Karaburn peninsula to the N of Izmir in the province of Manisa. Until late Antiquity, *marmor sagarium* was widely used for columns and veneers throughout the Mediterranean area, but especially in its central regions; it can't have been more than averagely expensive because of the variable quality of its colour and of the stone itself. In petrographic terms it is an oligomictic sedimentary (slope) breccia of the

dispersed carbonaceous matter/graphite (as in the case of the *bardiglio* variety).

Cretaceous; there are many varieties with differing colours and textures, including *broccatellone* and *breccia nuvolata*.

Breccia di Sciro or di Settebasi: a calcareous, sometimes dolomitic breccia, consisting of sharp-edged clasts of various colours (but generally white-pink), often striate and arranged in isoparallel fashion in one direction, set in a brownish matrix, often spotted with yellow and scored with red/brown/grey veinlets. It was probably quarried, starting in the Augustan period, in various places on the Island of Skyros (Aghios Panteleimon, Treis Boukes, Kourisies), and on some small, nearby islands (Valaxa, Renia, Koulouris). It was widely used for columns and cladding and more rarely for basins throughout the Mediterranean area, but especially in North Africa. In petrographic terms it is classified as a low temperature metamorphosed breccia but subject to strong directed pressure. *Breccia di Sciro* can easily be confused with both the *pavonazetto* and Apuan Medici breccias. One of its varieties, *semesanto*, has a minute grain, and has always been considered very rare and valuable. There is also an intermediate variety between the ordinary form and *semesanto*, known as *semesantone*; it is present in small fragments in the cladding of the Odeion.

Cipollino verde: in ancient times it was known as *marmor carystium* or *marmor styrium*, depending on which of the two main quarrying areas it came from: Karystos or Styra on the Island of Euboea. As with *cipollino rosso*, the name comes from the white-green layered appearance reminiscent of a sliced onion. It was one of the marbles most used, throughout the provinces of the empire, by the Romans – especially for columns and slabs covering floors or walls. It continued to be quarried in the Byzantine era. This impure chlorite-muscovite marble of the Permo-Triassic has such a distinctive macroscopic appearance that it is easily identifiable with the naked eye. There is also a rarer, grey variety known as *cipollino Bigio* that seems only to have been quarried at Karystos, in the vicinity of Mili. It is the imported coloured lithotype most commonly used for floor and wall coverings in the Odeion.

Fior di Pesco: the Romans called it *marmor chalcidicum* because its source quarries came under the jurisdiction of the town of Chalcis. It began to be quarried at the same time as *breccia di Sciro* and had the same distribution area (especially the Central Mediterranean) and uses. The ancient quarries, now largely destroyed by persistent modern use, are not far to the Northwest of the town of Eretria on the Island of Euboea (Greece). In petrographic terms it is an impure cataclastic limestone/marble with an extremely low metamorphic grade, dating from the Triassic. It owes its pink (the shade

of peach-blossom) or purplish-red colour to variously distributed and sometimes manganiferous haematite. It is not commonly found in Roman buildings, either in Rome or in other ancient cities, because it was much prized during the Baroque period, when it was widely plundered and re-used. A few rare fragments are present in the Odeion.

Giallo Antico: known as *marmor numidicum* by the Romans, this is a compact microcrystalline limestone which may occur with a uniformly intense yellow or light yellow base colour, sometimes with veins of red or brown; it may also occur with a breccia texture composed of white or yellow clasts immersed in a variably coloured base with shades of yellow to red. It was one of the first coloured stones introduced into Rome, perhaps already at the end of the II century BC, and massively from the reign of Augustus. It was one of the most costly stones (200 denarii per cubic foot) in Diocletian's Edict of maximum prices; nevertheless it was widely used in Roman towns in the Central Mediterranean area, both for columns (rare outside Rome) and for wall and floor covering; it was also used in small statuary, mainly for exotic or symbolic subjects (barbarians, African wild animals). The source quarries situated in the hills near the ancient town of Simitthus (now Chemtou, in Tunisia), were owned by the Emperor. Small fragments of this beautiful stone occur in the Odeion both in the uniform colour varieties and in the breccia form.

Marmo Greco Scritto: this is a true marble, white in colour and stippled with grey, recalling a white page with black writing, as suggested in the name given it by Roman marble workers in the Baroque period. Its ancient name remains unknown, but quarries that supplied blocks for columns, cladding slabs and basins have been identified in Asia Minor, at Hasançauslar near Ephesus (which yielded the fine-grain variety, perhaps the most beautiful and exploited one) and in the Marmara island (i.e. the medium-grain Proconnesian variety, with a vertical cross-section cut), in Greece (at the ancient Neapolis, present-day Kavala), and in Africa (very near to ancient Hippo Regius, Ippona, now Annaba in Algeria; Antonelli et al., 2009a; 2009b). Laboratory investigations are absolutely necessary for reliable determination of the exact provenance of this marble used in any artefact. It is very probable, however, that the fragments present in the Odeion came from Ephesus.

Pavonazzetto: like other important marbles, it was known by many other names, including *marmor phrygium*, *marmor docimium* and *marmor synnadicum*; the name *pavonazzetto* was given it by early-Renaissance stone cutters because of its purplish (pavonazze) patches, but the other names reflect their geographical origins, as was the Roman custom. From the first imperial period,

for example, *marmor docimium* was quarried at the ancient city of Docimium (now Iscehisar in the province of Afyon), near Synnada, in Phrygia. The quarries stayed open during the Byzantine period and indeed are still active, producing both fine-grain white marble, which is excellent for statuary, and a more or less breccia-type, yellowish and purplish marble. It was much used by the Romans for statuary and sarcophagi, but the purplish breccia variety (considered the finest) was also widely used for architectural elements and for cladding. *Pavonazzetto* was mentioned in Diocletian's price control edict as one of the most expensive stones (200 hundred denarii per cubic foot).

Portasanta: the name in this case derives from its distinctive use in the doorjambs of Holy Doors (opened only in Jubilee years) in Rome. The Romans called it *marmor chium* and it was one of the most important coloured stones of Antiquity. Used locally in the Classical and Hellenistic periods, abundant quantities were quarried from the I century BC at Latomi, in the NW outskirts of the city of Chios on the island of the same name. In the Imperial and early-Byzantine periods it was one of the stones most frequently used for columns and cladding, as well as for basins, altars, the bases of statues, etc.. It is a tectonic limestone breccia of the Triassic, with centimetre- to metre-long red, pink and/or grey clasts in a matrix coloured red or yellow by haematite/limonite, or grey from very fine carbonaceous particles. There are indeed several varieties of this stone with different textural and chromatic characteristics, and only experts can identify it with the naked eye. Both the holotypical and allotypical varieties of this stone (including the "mat variety") are present in the Odeion. The quantity used seems second only to *cipollino verde*, and the two stones provide the main colour elements in the monument.

Rosso Antico: known as *marmor taenarium* in antiquity, it sometimes occurs with a uniform base colour of bright or dark red or purple, but it may also feature a tracery of fine blackish veinlets or white strips/bands running in isoparallel or, more rarely, undulating fashion. There is evidence that it was used for rhytha as early as Minoan times and in the Mycenaean period it appeared in slabs carved with rosettes and spirals decorating the entrance to the "Treasury of Atreus" at Mycenae. It arrived in Rome between the end of the republic and the beginning of the empire, and here it became one of the most precious and sought-after stones because of the similarity of its colour to the imperial purple. The analogy of the red of the stone and the colour of wine favoured its use in the production of Dionysiac statuary in the Hadrianic period. It was also widely used for small capitals, pilasters, and especially for cornices and mouldings of various types found throughout the Mediterranean area. It was quarried at Cape Taenarum

(now Cape Matapan) and elsewhere on the Mani peninsula: Paganea, Profitis Elias, Laghia and Kokkinoghia. In petrographic terms it is an impure haematite marble of the Eocene. The variety with a uniform dark red colour base can easily be mistaken for a variety of *marmor iassense*, but its different texture can sometimes be distinguished with the naked eye or, more reliably, by geochemical analysis. The recomposition of the Odeion features only a few small fragments of this beautiful marble.

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