The Use and Symbolism of Coloured Marble in the Forum of Augustus and the Forum of Trajan at Rome

By

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Abstract

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This thesis details the use of coloured decorative marble in the ornamental design and the symbolic meaning in the Forum of Augustus (2 BCE) and the Forum of Trajan (112/113 CE). It is a comprehensive study of the levels of meaning conveyed through the coloured marble used in these complexes.

This is done through examining “low-level” and “middle-level” meaning, as identified by the modern architect Amos Rapoport. Low-level meanings, which communicate instrumental everyday meanings, were identified within the variations of the coloured marble pavements, the colour contrasts of the monolithic columns and the architectural arrangement in the Fora of Augustus and Trajan. This is carried out through the examination of the archaeological evidence for coloured marble within the Imperial Fora of Augustus and Trajan.

Middle-level meanings, which conveyed ideologies, were deliberately chosen to communicate an underlying theme or message, which in the context of the Forum of Augustus and the Forum of Trajan were related to the power, wealth, control, stability, and status of the emperor. This is explored through the abundance of ancient written sources regarding both colour and marble.

This study examined and created a comprehensive analysis of the levels of meaning conveyed through the coloured marble used in the Forum of Augustus and the Forum of Trajan. It demonstrates that there are many parallels not only between the choice of individual marbles used in the two complexes, but also the ways that they were arranged, and it concludes that coloured marble played more than just a decorative role in the Fora. Its meticulous arrangement and design were intrinsically connected with the everyday function of each space. The arrangement of coloured marbles provided a navigational guide to visitors, directing the flow of movement within the complexes, and delineating and defining the space. This further provides an in-depth understanding to the wider choice of the individual marbles and their application in the ornamental design of the building.
Declaration

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______________________________
Bridget Corless
Summary

The research described in this thesis is presented under the concept of exploring the use and symbolism of coloured marble in the Forum of Augustus and the Forum of Trajan. The Forum of Augustus and the Forum of Trajan are two important complexes in the center of the ancient city of Rome. Their extensive use of coloured marble for ornamental architecture was previously unmatched and drew attention to its uniqueness. Through the exploration and examination of the archaeological remains of the complexes and literary evidence, the coloured marble of the Forum of Augustus and the Forum of Trajan can be broken down into two of the three distinct levels of meaning — high-level, middle-level, and lower-level — as outlined by the contemporary architect Amos Rapoport. These levels of meaning, which Rapoport has pioneered and applied to the built environment, can also be applied to the Imperial complexes.

The focus of this thesis is to analyze the levels of meaning of the coloured marble within the Forum of Augustus and the Forum of Trajan. It explores the aesthetic arrangements of the marbles to gain a better understanding of the designers’ intentions in relation to aesthetic flow and everyday visual cues. These communicate “low-level” meanings that affect movement, visual cues and how the visitor interacts with the spaces through its ornamental coloured marble. The symbolic significance of the stones is also investigated, by considering their colour, origin and architectural uses in the complexes. These communicate “middle level” meanings. The aesthetic arrangements of the stones and the intentions of the designers for aesthetic flow will also be considered. This type of investigation takes a different approach to past studies, in applying levels of meaning, in order to fully understand the marble and its intricate system of meanings and symbolism.

Chapter 2 identifies and outlines the individual coloured marbles that are used in the Forum of Augustus and the Forum of Trajan. It examines ancient nomenclature and descriptions, quarries and the historical precedence of its use in Rome so as to place these stones into context in the Imperial Fora of Augustus and Trajan and the scope of the Roman Empire.

The Imperial Fora — the Forum of Julius Caesar, the Temple of Peace and the Forum Transitorium — and the archaeological evidence for coloured marble are comprehensively reviewed in Chapter 3, as are some of the issues surrounding the available evidence. The historical and architectural development of the Forum of Augustus and the Forum of Trajan is outlined briefly in this chapter for chronological coherence, however, they are dealt with
in greater detail later in this thesis. A greater understanding of these fora will give context to the area of the Imperial Fora.

Chapter 4 outlines the uses of the marbles within the Forum of Augustus and the Forum of Trajan and examines the reasoning behind the choices of the arrangement of the stones. It also includes an exploration of low-level meanings communicated through the marbles such as separation of space, visual cues, navigational aids, which in turn influence movement and the visual experience of these complexes.

Chapter 5 examines and considers the symbolism of the coloured marble used in the architectural decoration of the complexes and its middle-level meaning, namely the particular ideologies that the Emperor intended to communicate, such as identity, status, wealth or power. These are communicated through the colour, architectural form and size of the Fora.
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List of Abbreviations

AJA – American Journal of Archaeology
CIL – Corpus Inscriptionum Latinarum
FUR – Forma Urbis Romae
JRA – Journal of Roman Archaeology
JSAH – Journal of the Society of Architectural Historians
JSR – Journal of Roman Studies
LTUR – Lexicon Topographicum Urbis Romae
PBSR – Papers of the British School at Rome
RIC – Roman Imperial Coinage
Chapter 1

Introduction

The Forum of Augustus and the Forum of Trajan were two important complexes built in the ancient city of Rome that functioned as centers for political, religious and administrative activities. The Forum of Augustus and the Forum of Trajan were two in a series of five monumental complexes dedicated by the Emperors over a 150-year period (Figure 1 & Figure 2); the Forum of Augustus was dedicated in 2 BCE and the Forum of Trajan was dedicated in 112/113 BCE. Both were renowned by the ancient sources and modern scholars for their artistic display, innovative architecture and extravagant marble decorations, which have been uncovered during various archaeological excavations. The volume of coloured marble employed in the construction of the two fora surpassed any previous monumental complex of their times. These complexes were not the ‘norm’ of monumental architecture, but rather exceptional examples of monumental architecture.

This thesis will examine the archaeological and literary evidence pertaining to the use of coloured marble in the Forum of Augustus and the Forum of Trajan. The importance of the coloured marbles and their visual impact within these spaces is examined in detail. The significance and symbolism communicated to the visitor by the coloured marble, as well as its importance in the ancient experience and understanding of these grand complexes will also be considered in order to better understand the layers of meaning behind the coloured stones. This study will also attempt to understand the choice behind the individual marbles used in the Fora of Augustus and Trajan. It will not only explore the archaeology and reconstructions of the coloured marble decorations within these complexes but will also provide a study of the provenance and geology of the marbles, which is essential to understanding the wider use and choice of marbles for Imperial buildings.

1.1 Introduction and Background to marble in Rome

The archaeological evidence for the coloured marble of the Forum of Augustus and the Forum of Trajan has revealed the lavish and extraordinary scale of use. Coloured marble was an important decorative material in Rome, especially from the early Imperial period.

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1 For the Augustan date, Ovid Fasti 5.545-598; Suet. Aug. 29. For the Trajanic date, LTUR II 1995, 348; CIL VI.960.
through to Late Antiquity. The various marbles, sought after for their colour and decorative
effect, were transported over great distances to the imperial capital where they were used
in Imperial building programs.

The use of marble for decorative purposes had a long history in the Mediterranean
prior to the Roman period. Early exploitation of marble occurred in Egypt, from the
Dynastic period, and in the Greek world, ca. seventh century BCE, but supply was largely
dependent on the local access to quarries. Decorative white marble did not gain entrance
into Rome until the second century BCE when it was brought from Greece, although, given
the challenges of transportation, its use was rare and sporadic. It is no coincidence that this
eyear importation of marble coincided with the conquest of Greece. The marble
phenomenon in Rome went hand-in-hand with the expansion of provinces and the
consolidation of Rome’s power, and was in imitation of the Hellenistic cities and elites (see
Chapter 5). Marble was a form of spolia, displayed by Roman generals returning from
victorious campaigns in the eastern Mediterranean. The first known temple constructed of
marble was the Temple of Jupiter Stator in 146 BCE by Metellus Macedonicus, likely using
Pentelic marble. Pentelic Greek marble was considered to be the Greek building material
of Periclean Athens, thus its use in the decoration of Roman buildings carried with it
connotations of overseas conquest.

Structures decorated with costly marbles stood out as great monuments relative to the
brick, stucco and travertine constructions of the Late Republic. From the early first century
CE, the sources of supply expanded, and, as a result, decorative coloured marble began to
gradually make its way into Rome. Pliny the Elder records some of the dates and names of
the marbles, as well as anecdotal associations with leading political figures (see Chapter
2). The earliest coloured marbles imported to Rome included those from Numidia in
Northern Africa (giallo antico), Teos in Asia Minor (africano) and Carystos in Greece
(cipollino). These stones were among the first as a result of contact with the east and were
early markers of status and prestige. By the first century BCE, coloured marbles were

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3 Pensabene 2002, 3; Maischberger 1997, 17.
4 Bradley 2005, 2; Pensabene and Gasparini 2015, 97; Vitr. On Arch. 2.8.10; 2.8.16.
6 Vitr. On Arch. 3.2.5; Vell. Pat. Roman History 1.11.3-5; Popkin 2016, 72; Bernard 2010, 36.
7 Popkin 2016, 72.
9 Ward-Perkins 1980, 24; Pensabene 2002, 3-4; Fant 2008, 137; Pliny NH 36.49; 36.2; 36.48.
10 Pensabene 2002, 3-4; Maischberger 1997, 18.
tentatively used within temples and public structures, from which they then diffused into the interiors of private houses, a cause for concern amongst Roman moralists.\textsuperscript{11}

The opening of the Luna quarries in Carrara, Northern Italy during the late first century BCE supplied Rome with a local white marble that proved to be a cheaper alternative to Greek marbles.\textsuperscript{12} It may have been Julius Caesar who first thought to exploit the white Luna marble for his building projects in Rome, but it was Augustus who began to use it on a large scale.\textsuperscript{13} The exploitation of the Luna marble quarries provided Augustus with a readily available local source of marble for his great rebuilding of Rome, for which he was able to boast that “he found a city of brick and left it in marble.”\textsuperscript{14} At this time, the importation of coloured marble also accelerated and levels of architectural grandeur increased. Augustus refitted almost all of the ancient buildings of the Forum Romanum and Palatine with rich marble material, both white and coloured, however; the majority of the marble used was Luna.\textsuperscript{15} His major monuments adorned with marble included the Basilica Aemilia, the Temple of Concordia Augusta, the Basilica Julia, the Temple of Apollo Palatinus, the Forum of Julius Caesar and the Forum of Augustus.\textsuperscript{16} Luna marble, together with \textit{giallo antico, africano, portasanta, cipollino} and \textit{pavonazzetto}, was used for columns, revetments and \textit{opus sectile}.\textsuperscript{17} The Romans further demonstrated their ingenuity and pragmatism by cutting slabs of marble from a larger block, which was then used as a veneer to cover cheaper materials such as brick and concrete;\textsuperscript{18} the marble needed for a single cornice-block, measuring 1.5 m by 1.2 m by 0.9 m, would serve to pave an area of about 74.3 m\textsuperscript{2}.\textsuperscript{19} Augustus exploited the resources made available through the empire’s growing peace and prosperity and completely transformed the material grandeur of the city.\textsuperscript{20} What was a rare novelty in the Late Republic became increasingly common under Augustus and the Emperors. Nevertheless, it is worth repeating that the Forum of Augustus stands out amongst monumental marble architecture of Rome, as is not regarded as the norm for Augustan architecture, but as an exceptional display of marble on a considerable scale for that time period.\textsuperscript{21}

\begin{footnotes}
\item[11] Pliny \textit{NH} 36.6; 36.3; 36.8; Seneca \textit{Epis.} 86.6.
\item[12] Pliny \textit{NH} 36.14; 36.48; Strabo 10.2.5; Pensabene 2002, 4; Favro 1996, 184-185; 185 n. 100; Attanasio et al. 2006, 69; 87-93.
\item[13] Pliny \textit{NH} 36.14; Pensabene and Gasparini 2015, 97; Attanasio et al. 2006, 69.
\item[15] Walker 2000, 64-65; Favro 1995, 183-186; Table 5.
\item[16] Walker 2000, 64-65; Favro 1995, 183-186; Table 5.
\item[19] Ward-Perkins 1951, 99 n. 84.
\end{footnotes}
Following Augustus’s example, decorative marble became part of the urban fabric of imperial Rome. Luna marble remained a common choice of white marble, particularly for bases, capitals and entablatures, as evident in each individual Imperial Forum. Marble was not used extensively for “bulky architectural members” until the latter half of the first century CE under the Flavians, at a time when there was an increase in production and the demand for larger marble pieces became much greater (see Chapter 2). Marble such as giallo antico, africano, pavonazzetto, cipollino, portasanta, granito del foro, Aswan granite, purple porphyry and Lacedaemonian porphyry (see appendix I) became features in monumental architecture for columns, opus sectile and wall revetments. These decorative marbles were used in the Domus Flavia, the Temple of Peace, the Forum Transitorium, the Temple of Venus Genetrix, the Pantheon and the Forum of Trajan, the latter which contained one of the most extraordinary displays of grand marble architecture (see Chapters 2 and 3). The imperial fora, porticoes, baths, basilica and temples were increasingly lavish and costly in their decorations as each of the emperor’s projects measured against his predecessor.

1.2 Research Aims and Approaches
Past scholarship has tended to focus on the ideological messages of the architectural and artistic display of the Forum of Augustus and the Forum of Trajan, both as separate complexes and as part of the Imperial Fora. In these studies, the significance of marble has not gone unnoticed, due to the overwhelming presence of coloured marble in the architectural decoration of the Imperial Fora and archaeological record. For example, publications by James Packer (1997; 2001), Lucrezia Ungaro (2002; 2007) and Roberto Meneghini (2009) who’s works focused on the archaeology and reconstruction of the Imperial Fora, also touched on the use of marble in the construction. Additionally, the body of work written on Roman marble and the general marble trade has thoroughly examined marble within the ancient city of Rome and the Empire. These studies underline the importance of the material within the urban fabric of Rome and consequently the Imperial Fora.

Based on archaeological evidence, each of the complexes in the Imperial Fora were decorated with coloured marbles to convey the riches, power, and reach of each emperor.

25 Zanker 2015, 80.
While an intriguing window into aspects of Roman culture, the integrity of archeological records varies from forum to forum as a result of lack of evidence, reconstructions, and stripping for reuse in later periods. This is especially evident in the Forum of Julius Caesar, the Forum Tranistorium and the Temple of Peace. Therefore, post-Roman history of the Imperial Fora presents challenges to the reconstruction and analysis of the use of coloured marble in their original setting. By comparison, the remains of the marble decorations in the Forum of Augustus and the Forum of Trajan are much more complete enabling a more substantial analysis of how the marble decoration influenced the experience of the visitor.

Colour and symbolism have become a major scholarly concern; however, few of the studies of the Fora of Augustus and Trajan have thoroughly examined and created a comprehensive analysis of the levels of meaning conveyed through coloured marble used in these complexes.

A summary of the research questions under consideration in this thesis are:

- Why were the particular marble types selected for use in the Forum of Augustus and the Forum of Trajan?
- How significant is the range of marbles in the complexes? How were the marbles used and what was their purpose?
- Does the colour of the marbles have a particular significance?
- How did the visitor perceive the marbles, and did it enhance their experience of the Imperial Fora of Augustus and Trajan?

The choice of marble, its architectural application, arrangement and positioning in the Imperial Fora of Augustus and Trajan were all carefully planned to convey fundamental themes, messages and meaning. The modern architect Amos Rapoport (1929-present) stated that meaning is central to the built environment and the human understanding of our surroundings.26 This thesis will therefore explore the different levels of meaning (high-level, middle-level and low-level meaning) pioneered by Rapoport in the context of the Forum of Augustus and the Forum of Trajan. This method is further elaborated on in section 1.3.3 of this chapter.

1.3 Review of Current Scholarship

26 Rapoport 1989, 325; Rapoport 1990, 14.
This thesis will build upon an already established body of work centered on the architecture of the Forum of Augustus and the Forum of Trajan, and their use of coloured marble. This will provide a better understanding of the individual marble types, their symbolism, and their role in the deliberate design and ancient experiences of the marbles used within these imperial complexes. Recent developments in the wider study of marble within ancient Rome are also taken into consideration. In addition, the modern architectural study by Amos Rapoport is highlighted, as it has influenced the theoretical approaches to the meaning and symbolism of the coloured decorative marble examined in this thesis.

### 1.3.1 Research on the wider study of marble

Marble has been ubiquitous in the study of Roman architecture, due to its relative permanence in the archaeological record. This thesis is primarily concerned with the coloured decorative marbles used in the Forum of Augustus and the Forum of Trajan, but also includes an examination of the quarries, geology and application of marble in other buildings within Rome and the Empire. This is important when examining the wider context of Roman marble in monumental public architecture.

Over the course of the last sixty years, interest in the study of marble has flourished. Prior to the 1950s, studies of marble tended to focus on the artistic aspects within Rome’s architecture without fully considering the marble source. John Ward-Perkins is credited with shifting the focus of the study, by considering the quarries and points of extraction, technology, transport and proposed a model for the system of marble distribution and trade. His 1951 and 1980 articles respectively entitled ‘Tripolitania and the marble trade’ and ‘Nicomedia and the marble trade’, are important in emphasizing this type of study. 27 The work conducted by Ward-Perkins on the Roman marble trade is credited in almost every piece of scholarship as establishing the study of the Roman marble trade. Although some aspects of his collected papers are a product of their time, they continue to have great impact on the wider study of marble and its trade network, as his findings are the basis for much of the academic thinking around the subject. The area of study has grown, and in the process, many ancient quarry sites across the Mediterranean have been rediscovered and studied by scholars. 28 Mark Bradley (2005) has pointed out that geography was a defining character of coloured marble to the ancients. 29 Colour was an important aspect of the marble

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27 Ward-Perkins 1951, 89-104.
29 Bradley 2005, 3. See also Chapter 5.
which visually drew attention to “the territory from which it had been extracted, the political circumstances that allowed Rome to quarry it, and the effort it took to quarry, fashion and transport”. These characteristics are important to the symbolism communicated through the marble, especially its middle-level meanings.

Following in Ward-Perkins’ footsteps, the Association for the Study of Marble and Other Stones in Antiquity (ASMOSIA), founded in the 1980s, called for the study of marble and other stones at an interdisciplinary level, and consequently boasts an impressive catalogue of contributions. Over the years, ASMOSIA has brought together experts from many different fields including geologists, geochemists, art historians, archaeologists and ancient historians to study Roman marble at an interdisciplinary level. While the main thrust of this thesis focuses on the archaeology, artistic and architectural aspects relating to coloured marble, other fields related to this subject must also be considered.

The organization of the Roman marble trade, as a whole, is extremely complex. The system developed over a significant amount of time, and imperial involvement developed in the same way. The study of the organization of the quarries is based on epigraphy and archaeological finds outlined in modern quarry reports, as well as the distribution patterns of marble throughout Italy and the Roman Empire. Prior to the Imperial period, the quarries are thought to have been owned by private individuals or cities, and according to Ben Russell, this was not likely to immediately change in the wake of the principate. Suetonius claimed that Tiberius had expropriated the quarries of a number of cities along with the tax collection rights. While this may support a process of imperial control of the quarries, in their respective works, both Fant and Russell argue that this statement is a generalization of quarries and mines at one isolated period of time and does not extend to all the quarries. Still, there is epigraphical evidence for the imperial organization and administration in the major ‘imperial quarries’ of Chemtou, Teos, Chios, Docimium and the Eastern Egyptian Desert that were worked by imperial ‘employees’ or leased to private contractors.

The lack of concrete evidence for the organization of the quarries and the marble trade in the first half of the first century CE has not drastically changed. Fant argues that the lack of evidence for this time period indicates a low level of activity. The evidence

30 Bradley 2005, 3.
31 Since 1988 the association has published nine other proceedings from their meetings, on a wide variety of topics relating to marble.
32 Russell 2013, 53.
33 Suet. Tib. 49.
34 Fant 2001a, 151; Russell 2013, 53; Fant 1988, 150.
35 Fant 1988, 150.
for the Julio-Claudian period of quarry activity presented by Fant is from the cities surrounding Vesuvius and is based on scarcity of decorative marbles, as well as the absence of quarry marks on marble dressed in the imperial quarries.\textsuperscript{36} The slow diffusion of marble from the capital to other regions in Italy indicates that the emperors, in particular Augustus, were merely concerned with supplying their own projects in Rome. Exploitation of the quarries was carried out by the emperors to elevate their position as the unchallenged benefactors of the empire.\textsuperscript{37} Fant concludes that in the first century CE, the economic gain from commercializing marble was overshadowed by the desire for imperial building and thus imperial demand is the motivation behind the development of a quarry system. It is generally agreed that the quarry system began to change towards the later first century CE to adapt to increasing commercial demands.

A larger output of production is evident based on quarry inscriptions and a standardized set of quarry marks.\textsuperscript{38} An inscribed system was used on blocks of marbles to identify the consular date, the extraction location \textit{(locus)}, the names the contractor or imperial slaves/freedmen \textit{(ex ratione)}, the extraction team \textit{(caesura)} or dressing workshop \textit{(officina)}, although there were variations of this formula.\textsuperscript{39} These inscriptions have been found on blocks from the quarries of Carystos, Chemtou, Docimium, the Eastern Egyptian Desert and Teos.\textsuperscript{40} The involvement of the Emperors in the marble trade is a significant factor to the study of the use of marble in Roman imperial building. Through analysis of the quarries and the inclusion (or absence) of marble in imperial and non-imperial building, scholars are able to analyze the significance and importance of certain stones to the imperial patron. In addition, this also puts into perspective the level of control Emperors had over various quarries, which allowed both Augustus and Trajan to extensively supply their respective fora with the most prestigious coloured marbles of the empire.

\subsection*{1.3.2. Recent work on the Imperial Fora}
A number of publications examine the artistic display, reconstruction and function of the Fora of Augustus and Trajan, and naturally include general treatment of the marble.\textsuperscript{41} There

\begin{thebibliography}{10}
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\item \textsuperscript{36} Fant 1988, 150-151; Fant 2001a, 151-152.
\item \textsuperscript{37} Hirt 2015, 289; Fant 2001a, 163; 151 (the broad diffusion of polychrome marbles demonstrates that they were much sought after, but the actual uses indicate scarcity. The most common use was in mosaic floors of marble, from the early Augustan period).
\item \textsuperscript{38} Fant 1988, especially 151-153; Fant 2001a, 157-163; Hirt 2010; Russell 2013.
\item \textsuperscript{39} Fant 2001a, 157; Fant 1988, 151-153; Ward-Perkins 1951, 89-90.
\item \textsuperscript{40} Fant 2001a, 157.
\end{thebibliography}
has been less emphasis in existing literature on an extensive consideration of the coloured marble and its symbolic meaning within these two complexes. In larger studies of the Imperial Fora, the use of coloured marble is considered under the umbrella of the architecture, yet the symbolism and meanings are only briefly mentioned. It is worth highlighting the recent contributions made separately by James Packer and Lucrezia Ungaro and their assessment of the marble of the Forum of Augustus and the Forum of Trajan. James Packer’s multi-volume book, *The Forum of Trajan* (1997), briefly discusses the marble of the Forum of Trajan as a way of highlighting important elements and spaces within the complexes, but it lacks an in-depth analysis of the symbolic meanings. Ungaro’s article ‘*I Foro di Augusto*’ (2002) in the publication *I marmi colorati della Roma Imperiali* discusses the role of coloured marble in the definition of space in the Forum of Augustus. Although both of these publications contribute to the wider assessment of coloured marble used within these two complexes, they only consider one aspect of its use.

This present study will, therefore, attempt to broaden the body of knowledge and understanding of the Forum of Augustus and the Forum of Trajan. Chapter 4 takes inspiration from both Packer and Ungaro’s definition of space through coloured marble, which is evident when looking at a coloured representation of the overall plan. This thesis will further elaborate on this ‘functional’ aspect of the marble by examining its role in the experience of the visitor to the Fora of Augustus and Trajan.

### 1.3.3 Architectural meaning and approaches of Amos Rapoport

Amos Rapoport is a modern architect and scholar and is notably one of the founders of Environmental Behaviour Studies (EBS), which focuses on built environments and their relationship to human behaviour. Rapoport has published a number of books between 1969 and 2007, as well as countless other publications, relating to the “built environment,” which refers to anything human-made and provides a setting for human activity. Through his studies, he asserts that meaning is central to the built environment, cross-culturally, as spaces take on various special human meanings. For Rapoport, the meaning of the built environment and material culture is broken into three distinct levels: “high-level” meanings, “middle-level” meanings and “low-level” meanings.

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42 Packer 1997b, 269-272.
45 Rapoport 1988, 325; Rapoport 1990, 14.
46 Rapoport 1988, 325; Rapoport 1990, 221.
High-level meanings communicate concepts such as cosmological, religious and philosophical systems. These specialized meanings are culturally specific and in ancient societies these typically are understood by a specialized group (i.e. priests and philosophers). For example, within Hadrian’s Pantheon high-level meaning is communicated through the architecture the universal cosmology and, as told by Dio Cassius, represented the celestial home of the gods.

Middle-level meanings communicated certain ideologies such as identity, status, wealth, control, stability, and power. This refers to deliberate messages communicated by the designers and constructors of the building. This can generally be visually interpreted across cultures, though certain aspects are culturally specific through shared social constructs. This is demonstrated in the monumentality of buildings for which there are numerous examples in Egyptian, Roman and Hellenistic architecture. Such monuments exhibited the abilities, power and status of a particular community or individual. However, certain elements within these built environments, such as the symbolism of conquest communicated through marble within a Late Republican temple (see above), would be considered a culturally specific aspect of middle-level meanings.

Low-level, every day and instrumental meanings communicate such things as how to use a space, accessibility, entering and exiting (navigational cues), visual cues, as well influencing movement and the interactions of everyday people within the set environment. These levels of meaning are present in almost every built environment and are important for visitors to the space. Built environments are not limited to only one of the aforementioned levels but can take on multiple levels of meaning. Rapoport stresses the role of cultural variables as context is critical to studying the meaning since it is dependent on culture, time period, and other elements.

Additionally, the built environment can be further broken into “fixed-feature”, “semi-fixed-feature” and “non-fixed-feature elements”. Fixed-feature elements are the architectural elements that are rarely changed, such as walls, floors and pavements, windows, columns and pillars. In the case of the architectural ornament of Roman monuments, coloured marbles are considered to be ‘fixed-feature elements’. They

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47 Rapoport 1988, 325.
48 These specialized meanings can sometimes be deciphered by scholars through ancient texts.
49 Dio Cass. 57.27.2; Wilson Jones 2000, 182. See also MacDonald 2002.
50 Rapoport 1988, 325. See also DeMarrais et al. 1996.
51 Rapoport 1988, 325.
53 Rapoport 1990, 87.
54 Rapoport 1990, 88.
communicate different levels of meaning based on their arrangement, decoration, and location. Semi-fixed feature elements are those that are easily changeable and are defined broadly as “furnishings” and other moveable objects that are placed in a fixed-feature space.\textsuperscript{55} Non-fixed feature elements are highly variable and relate to the human occupants, their behaviour and activities.\textsuperscript{56}

The non-fixed feature elements related to the human occupants or the ‘viewer’ / ‘visitor’ / ‘user’ is an important aspect to the study of the built environment as they are the environment’s occupants whose behaviors, thoughts and movements are influenced by the architecture and design. For example, the layout of a building influences where the occupants can exit, enter and move through. The occupants of the built environment, again, is dependent on the cultural variable. In the case of this thesis, the occupant mentioned is the ‘visitor’ to the Forum of Augustus and the Forum of Trajan. A brief reflection of their status and identity is considered in Chapter 4.

A key variable to this form of communication is movement, namely how built environments or the architectural space influence and manipulate movement (especially with low-level meanings), since occupants give their environment meaning through their activities and movement within it.\textsuperscript{57} Studies of urban landscapes and architecture have increasingly become concerned with how urban environments were constructed, experienced and navigated in order to create a fuller picture of the society. La Rocca’s contributing article “Ancient Rome as seen by the ancient Romans” examines the ancient’s perception of their city, emphasizing guided movement as a way for people to explore their urban surroundings.\textsuperscript{58} Monumental complexes offered restricted views as the totality of the plan was not perceptible to the visitor, compelling them to walk from one space to another in order to discover the spatial complexity “not through a truly perspective structural system, but rather through memory and mental agglutination.”\textsuperscript{59} Movement is also critical to Favro’s study of Augustan Rome as she attempts to consider how the Romans saw the city by recreating walks through it at different stages of Augustus’ reign to examine the changing urban image.\textsuperscript{60} She repeats the same sentiment as La Rocca, observing that movement through a physical environment was one of the most powerful ways to learn and

\textsuperscript{55} Rapoport 1990, 89-90; Rapoport 1988, 319.
\textsuperscript{56} Rapoport 1990, 96-97; Rapoport 1988, 319.
\textsuperscript{57} Rapoport 1988, 325 (low-level meanings pertain to the influence of movement)
\textsuperscript{58} See La Rocca 2015.
\textsuperscript{59} La Rocca 2015, 26-27.
\textsuperscript{60} See Favro 1996, especially chapters 2 and 7.
remember. Macaulay-Lewis examines walking and movement in Rome by studying space, separating walking into two categories: transport and leisure. Walking was the main mode of transport for the Romans and involved walking in the streets and sidewalks. Comparatively walking for leisure was generally located in public porticoes, portico-temples and gardens. Her discussion poses an important question, which is how movement through space allows us to understand the construction, purpose and meaning of that space. Her approach touches on a similar theory to that of Rapoport, and aims to establish “how the built, urban environment shaped human walking and behaviour.”

Rapoport employs a non-verbal communication approach, as it emphasizes visual cues for the study of environmental behaviour in order to understand the meaning of everyday modern environments to its users. The built environment communicates to its users, similar to the way humans express meaning or emotional states through subtle facial expressions, hand gestures and body language, messages that are largely understood and do not require explanation or elaboration.

The non-verbal approach provides a basis for understanding symbolic communication and can often be used in conjunction in order to understand the various levels of meaning within the built environment. Rapoport states that symbols and symbolism are important at all levels of design and are widely present in high-style historic buildings. Within the urban landscape of ancient Rome there are numerous examples of such high-style historic buildings, including the Pantheon, the Imperial Fora, the Basilica Aemilia, amongst others. Suzanne Langer (1953) defines symbols as “any device whereby we are enabled to make an abstraction.” Symbols have a communicative nature that are often culturally dependent and are conveyed through a number of mediums, such as materials, icons, monuments and written texts. The symbolism of the built environment, which is applicable to high-style historic buildings that are culturally traditional (i.e. ancient

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63 Macaulay-Lewis 2011, 262; 278.
64 Macaulay-Lewis 2011, 264.
67 Rapoport 1990, 48-49; 104-106; 223. A discussion on the universalism of non-verbal cues is beyond the scope of this project but lower level meanings are more broadly understood than middle or high-level meanings. Rapoport stresses that context is critical to this type of study, since it depends on the time period, culture, and other elements.
69 Rapoport 1974, 58; 60.
70 Langer 1953. See also Rapoport 1974, 58-59.
71 DeMarrais et al. 1996, 16.
Rome), often contains high and/or middle level meanings.\textsuperscript{72} The high and middle level meanings are often moulded in order to communicate certain identities and values, such as what is important to that society in relation to social and political change, and how it relates to the larger social structure.\textsuperscript{73} In ancient Rome, for example, middle-level meanings — communicating power, wealth and status — were important in Augustan buildings, and were used to demonstrate his status as leader of the Romans and the empire at a time of great political change in Rome.\textsuperscript{74} Rapoport argues that in the past there was a much wider agreement about symbols and fewer idiosyncratic variations. Symbols were often fixed, known and shared by the public. The response elicited from the public was often within a narrow range as the environment was a tool for the environment shaper (architect / patron) to communicate certain ideologies and influence thought.\textsuperscript{75} In pre-literate societies high-level and/or middle level meanings were permanently fixed within the built environment.\textsuperscript{76}

Through symbolism, the users can interpret the built environments as an expression of culturally-shared mental structures based on “a shared religious pantheon, common ancestry, and familiar iconographic vocabulary.”\textsuperscript{77} The Roman built environments often relied on the users to draw upon their shared heritage of myths, tales and history, in order to receive symbolic messages.\textsuperscript{78} In the context of this thesis, this theory of meaning applies to the architect and the emperor, who shape and influence the thoughts of the public through their grand works. The viewer would be able to read the symbolic code embedded in the built environment quickly and easily.\textsuperscript{79}

In this context, Rapoport’s levels of meaning serve as a ‘framework for thinking’ and establishes it as a generalized model for approaching the meaning embedded into built environments.\textsuperscript{80} His model is useful in examining, describing and categorizing the various ways in which humans interact with their surroundings or built environments and allows scholars to interpret how the architects originally intended the space to be perceived, and how human occupants experience and navigated through these elements.

Rapoport’s model influenced the work of Michael Smith (2007), which focused on of ancient urban planning, particularly its political and social significance. According to

\begin{itemize}
  \item \textsuperscript{72} Rapoport 1990, 43-48.
  \item \textsuperscript{73} Lawrence and Low 1990, 467.
  \item \textsuperscript{74} Favro 1996, 104; 215-216.
  \item \textsuperscript{75} Rapoport 1990, 45; Anonymous 1992, 97; Favro 1996, 7-10. See also Aldrete 1995, 26-27.
  \item \textsuperscript{76} Rapoport 1990, 45; Anonymous 1992, 97.
  \item \textsuperscript{77} Favro 1996, 6.
  \item \textsuperscript{78} Favro 1996, 10.
  \item \textsuperscript{79} Rapoport 1990, 44.
  \item \textsuperscript{80} Rapoport 1990, 9.
\end{itemize}
Smith, the levels of meaning provide a useful framework for examining both the intentions of the rulers and the effects of city planning on urban visitors and inhabitants. This allows scholars to attempt to understand human behaviour and people’s relationships with the urban fabric of the city, for example, how architecture influences both thought and movement. This approach can be used more broadly in the archaeological landscape when examining urban planning and the topography of a city as well as on individual monuments, complexes, public buildings, and dwellings. Rapoport’s model and publications thus serve as a useful framework for approaching the meaning of architecture and the built environment through the symbolism expressed through architecture and building materials, such as coloured marble.

In the Roman urban landscape symbolic meaning of a building can be expressed through many forms, for example through its location, shape, construction, material or decoration and artistic display. Within architecture, decoration and building materials are easily recognizable agents of meaning and symbolism embedded in the material code. In relation to this present study, materials from which the buildings are made or with which they are decorated, such as coloured marble, are fundamental to the study of architectural symbolism. While marble is only one architectural aspect of the Forum of Augustus and the Forum of Trajan, it provides important clues and insight into how the ancients interacted with and were influenced by their environment. Extravagant examples of which are found in the Forum of Augustus and the Forum of Trajan. These coloured marble elements affect the visual composition of the structure and the different levels of meaning attached to the material. The arrangement of the stones contained navigational and visual cues, a functional aspect for everyday use. Through the arrangement of the stones and layout of the complex, the intention of the architect / patron can be examined and how they intended the spaces to be seen, moved through and interpreted. These are essentially low-level meaning attached to the “fixed feature elements” (those that are fixed or change rarely and slowly); this will be explored further in Chapter 4.

The symbolism of coloured marbles did not have one fixed meaning in the Roman period, but contained layers of symbolic meaning that shifted and changed based on context, use, form, colour and function of the monument, as well as changing political historical and social contexts. Coloured decorative marble was a part of the symbolic

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81 Smith 2007, 30; Buell 2014, 258.
82 Rapoport 1990, 88.
83 Rapoport 1990, 88-89.
84 Popkin 2015, 289; 304.
nature of the architecture in Imperial Rome and more often took on middle-level meanings; this level of meaning is more easily identified by archaeologists across cultures, but still requires specialized knowledge. Within the Forum of Augustus and the Forum of Trajan the middle-level meanings, communicated through the decorative marble, had various layers of symbolism attached to their colour, size, form, and use; Chapter 5 will further investigate this topic.

Drawing from Rapoport’s model, this thesis aims to achieve a greater understanding of the construction, purpose, use and symbolic meaning and experience of the Forum of Augustus and the Forum of Trajan through the categorization and application of the different levels of meaning as it pertains to the use of decorative marble. The coloured marble and the levels of meanings are a part of a wider ideology in power strategies curated by the emperors to idealize and legitimize their rule, however, their everyday meaning for the visitor to the complexes is central to the arrangement and visual display.

1.4 **The Evidence**

The primary evidence for this thesis relies on testimony extracted from the ancient literary texts and documented archaeological surveys, as well as personal observations made during a research trip to Rome in April 2018. While the primary sources are invaluable to this study, there are a number of challenges that arise with the evidence, which are outlined below.

1.4.1 *Archaeological evidence (and personal observation)*

A significant amount of this thesis relies on archaeological evidence in order to reconstruct the use and placement of the original coloured marble within the architecture of the Forum of Augustus and the Forum of Trajan. As with any archaeological study concerning the city of Rome, challenges arise due to construction, reconstruction, destruction of monuments and the continual habitation of the city from the Imperial period to the modern era. Each of the Imperial Fora have different histories of survival based on these factors and this impacts how modern scholars are able to interpret the collected archeological data.

From the sixth century CE, when the area of the Imperial Fora no longer functioned at a public level, the decorative marbles were systematically stripped from the ancient buildings and were either melted down for lime or used in other structures. In the seventh or eighth century CE, a lime-kiln was set up in the Forum of Trajan and in the ninth century
the systematic spoliation of the Imperial Fora occurred, which coincided with the establishment of the papal state. During the post-Roman period, it was increasingly difficult to quarry at the source, thus the remains of the former Imperial Rome became the local ‘quarry’. This was common practice throughout the Middle Ages and particularly the Renaissance, as the reuse of the ancient marble was the only option, given the political climate, breakdown of the empire, and loss of access to quarry locations. Stones were taken from their original Roman locations and reused in the churches and basilicas of the papal state. For example, four columns of giallo antico, originally from the porch of the Basilica Ulpia of the Forum of Trajan, were re-used in the transept of St. Peter’s Basilica in the sixteenth century. The spoliation of marble poses a real challenge for modern scholars when trying to identify the original Roman use, as it was not documented.

There was gradual and sporadic building in the area of the Imperial Fora, but it underwent extensive urbanization and was densely inhabited in the sixteenth century. This became the ‘Alexandrine district’, created by Cardinal Alessandro (Michele) Bonelli, which also raised the street level by two meters (Figure 3). The Imperial Fora had long been abandoned, but elements of the complexes were still visible above the street level and incorporated into the later strata. This is evident from antiquarian drawings and nineteenth century photographs: the Forum of Augustus’ rear wall and three of the columns of the Temple of Mars Ultor (Figure 4), as well as a section of the colonnade of the Forum Transitorium (Figure 5), survived because they served as boundaries of the streets and structural support for new buildings.

Excavations took place in the nineteenth century in the areas of the Forum of Trajan and minor excavations in the Forum of Augustus. In the 1920s and early 1930s, important large-scale excavations took place under Mussolini and the Fascist regime. This brought to light various parts of the Imperial Fora, during the construction of the Via dell’Impero, to celebrate the past glories of Rome. Work began in 1924 in the Forum of Augustus, uncovering the northeastern section with the temple of Mars Ultor and two hemicycles.

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85 Kinney 2013, 266; Milella 2007, 196.
86 Kinney 2013, 266-267. Prior to this, in Late Antiquity, Constantine reused some of the Dacian statues of the Forum of Trajan to adorn his arch in Rome, the state of the forum was still substantially intact when Constantius II visited in 359 CE (Amm. Marc. 16.10.15; Packer 2001, 5).
87 Packer 1997b, 19.
88 Meneghini 2009, 238-239; 24; fig. 323-324; Ungaro 2007b, 14.
89 Ungaro 2007a, 14; Meneghini 2009, 210-211; 240-241; fig. 319-321; fig. 323. The podium of the Temple of Mars Ultor was used for the Monastery of S. Basilio since the tenth century were demolished beginning in 1924.
These excavations, supported by the archaeologist Corrado Ricci, led to the demolition of the Alexandrine district (Figure 3 & Figure 6).\(^{92}\) This destroyed an important layer of the post-Roman history of the area of the Imperial Fora that has recently been the subject of scholarly discourse.\(^{93}\) These excavations also uncovered parts of the Forum of Trajan, the center and southeast section of the Forum Transitorium, the northwest half of the Forum of Caesar and small sections of the Forum of Peace.\(^{94}\) Excavations uncovered original marble fragments, pavements and marble ornament; these fragments are partly still in situ in the archaeological sites and some columns were re-erected throughout. These excavations were carried out rapidly for the opening of Mussolini’s Via dell’Impero, which cut through the center of the Imperial Fora. As a result, sections still remain under the street level today. In addition, there was no systematic recording and cataloguing of the finds, nor a publication of a comprehensive archaeological survey by the archaeologists, which does not allow scholars to analyze the full data.\(^{95}\) While these excavations destroyed an important level of history, the clearance of the area has given architectural studies important information and finds that are integral to the study of the architecture and coloured marble of the Imperial Fora. Without this clearance, modern excavations would probably still be limited to cellars and smaller archaeological sites, such as those taking place under the Palazzo Valentini in search for the temple of the Deified Trajan.

The most recent complete excavations in the Imperial Fora were carried out between 1991 and 2007 (Figure 7), during which a number of important discoveries were made relating to the Forum of Augustus and the Forum of Trajan.\(^{96}\) In the Forum of Augustus, a third hemicycle was discovered in the northwest portico and a fourth in the southeast portico (refer to Figure 8), both of which were destroyed in the late first century CE, to accommodate the construction of the Forum Transitorium and the Forum of Trajan.\(^{97}\) Between the Forum of Augustus and the Forum of Trajan a sunken courtyard, a “trisegmented hall” and the monumental entrance were discovered in the excavations conducted between 1998 and 2000; this discovery eliminates the theory of a monumental triumphal archway, which was based on limited evidence.\(^{98}\) These excavations have also uncovered more fragments of coloured decorative material, which allow scholars to reconstruct the decorations of the structures. These discoveries have also caused a

\(^{92}\) Meneghini 2009, 241.

\(^{93}\) Ungaro 2007b, 6-15; Meneghini 2009, 197-248.


\(^{96}\) Meneghini 2009, 248.

\(^{97}\) Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007c, 126.

\(^{98}\) Meneghini 2009, 139.
reconsideration of many of the traditional reconstructions of the Imperial Fora, the Forum of Augustus and the Forum of Trajan (see Chapter 4 for further discussion of this topic). Furthermore, there is an on-going debate regarding the existence and location of the Temple of the Deified Trajan. The northwestern end of the Forum of Trajan, where the Temple precinct is thought to be, still remains under the Palazzo Valenti. The lack of excavations has caused debate in the academic community for the placement of the Temple of the Deified Trajan; this will further be discussed in Chapter 4.99

Although the surviving marble fragments are only a portion of what once adorned the Forum of Augustus and the Forum of Trajan, there is still sufficient evidence for archaeologists to reconstruct much of the marble ornament with a degree of certainty. Much of the discussion of the architectural reconstruction and placement of the coloured marble of the Forum of Augustus and the Forum of Trajan in this thesis is based on the works of James Packer (1997a; 2001) and Roberto Meneghini (2009) with additional references to Lucrezia Ungaro’s edited publication (2007a), which coincided with the opening of the Museo dei Fori Imperiali in the original Markets of Trajan. While all of these publications reconstruct the use of coloured marble, apart from Packer’s brief comments on the marble polychromy, they rarely consider the symbolism and use of marble at length within the Imperial Fora of Augustus and Trajan. First-hand research was carried out in April 2018 in Rome, Italy, at the archaeological sites of the Forum of Augustus, the Forum of Trajan and the Museo dei Fori Imperiali. The Sovrintendenza Capitolina ai Deni Culturali granted permission to access the sites of the Imperial Fora so that up-to-date photography could be taken of the coloured marble that remains in situ.100 This research has been immensely enhanced with first-hand observations of the archaeological evidence and archaeological sites which aided in fully grasping the monumentality and magnificence of these complexes and their marbles. These photographs are included in the figures and constitute an essential part of the body of evidence and reference for this thesis. The archaeological surveys and evidence combined with personal observations has allowed for a very thorough autopsy of the marbles of the Fora of Augustus and Trajan.

1.4.2 Literary sources

It must be noted that very few ancient literary references exist that detail the specific uses of coloured decorative marble in the Forum of Augustus and the Forum of Trajan. However,

100 Special thanks to the British School at Rome for all their help.
this is not to say that marble was not a topic of interest to the ancient writers. There are numerous references within the ancient literature to marble. Sources including Pliny the Elder, Strabo, Martial and Pausanias offer valuable general information regarding marble, such as descriptions of the stones, ancient names and the location of the quarries. Although they are sometimes criticized for their inaccuracies, the ancient works constitute an important source of information and ancient commentary views on the use of marble in the Roman period. These sources will be discussed further in Chapter 2.

1.4.3 Numismatic evidence

Numismatic evidence is significant to the study of ancient Rome, as coins were important tools of communication and identification used to commemorate historical events, express themes of imperial victories and trends in iconography from the artistic depiction. Buildings are also commemorated on coinage and are, therefore, considered as evidence for the existence of certain monuments or buildings when the archaeological excavations are not possible. Many coins have commemorated both Augustus’ and Trajan’s triumphs, as well as the Temple of Mars Ultor and the Forum of Trajan. However, coinage presents challenges in regard to Roman monuments. The depiction may be a highly stylized and not a completely accurate depiction, due to the small surface of the coins. One such example is the interpretation of the structures at the southeast end of the Forum of Trajan. Numismatic evidence depicted a single triumphal archway flanked on either side by niches containing statues and surmounted by a quadriga and was inscribed with the words ‘FORVM TRAIAN’.

This interpretation of a triumphal archway was later disproved by excavations, as the coin is rather a highly-stylized depiction of the south-eastern façade. Thus, we must approach the evidence in this respect with caution.

1.5 Conclusion

The low-level and middle-level meanings communicated through the coloured decorative marbles within the Forum of Augustus and the Forum of Trajan will be explored throughout the course of this thesis. The next chapter will identify the specific coloured marbles to the Forum of Augustus and the Forum of Trajan, their provenance, history in Rome and the

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101 RIC I Augustus 264; 28; 81; RIC II Trajan 218; 212; 98; 77; Rose 2005, 59; 62-63; Packer 2001, 148-149.
102 RIC II Trajan 257; Packer 1997b, 85-91; Meneghini 2009, 139.
103 Meneghini 2009, 132.
ancient written comments, in order to provide a wider understanding of the symbolism and meaning within the two complexes.
Chapter 2

From the quarries to Rome: putting the stones of the Forum of Augustus and the Forum of Trajan into historical context

Understanding the origins, geology and quarrying practices of stones used in the architecture of ancient Rome has become central to historical, symbolic and architectural dynamics behind the demand for marble. This chapter will examine historical descriptions and contexts of the marbles specifically used within the Forum of Augustus and the Forum of Trajan. It will also discuss the location of the quarries, their nomenclature, and the historical precedence for the use of specific marble types. The marbles that are the main focus of this thesis are giallo antico, africano, pavonazzetto, cipollino, and granito del foro, all of which are named (and valued) in the Price Edict of Diocletian. While the marbles discussed in this chapter are central to the artistic and architectural decoration of the Fora of Augustus and Trajan, these are just a few of many known and used within the Roman world.

Modern geologists classify rocks into three basic types depending on the way in which they were formed in nature: igneous, sedimentary and metamorphic. Marble is a metamorphic rock formed when limestone is exposed to high temperatures and great pressure. The variety of colours is as a result of impurities, such as clay, iron oxides, and bituminous mineral, being incorporated into the limestone during the metamorphic process. The Latin term marmor, however, had a more general definition and was used to define any fine or hard stone that could be highly polished and used for fine sculpture or architecture; this includes granites, porphyry, and basalt. The Roman classification of marble was based on the stone’s origin and physical appearance.

Marble used for architectural ornament and sculptures was a part of the ancient discourse and through the ancient sources, important information regarding colour, naming, quarry locations and, occasionally, quarrying techniques can be gathered. However, given the multitude of sources, from ancient and Renaissance times to modern scholarship,

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104 The Latin texts of the Price Edict of Diocletian (301 CE) are given in Erim and Reynolds 1970, xxxii.a, 133.
106 Klein and Philpotts 2017, 24-25.
107 Bradley 2005, 5; Ward-Perkins 1971, 137.
individual stones were often referred to by many names, resulting in inconsistent nomenclature within the literature — and sometimes within the same text.

Pliny the Elder’s Natural History Book 37, written in the 70s CE, is an important ancient work regarding stones, as it contains the most comprehensive compilation and detailed description of ancient marbles. Although at times inconsistent, the text names and classifies various marbles by geographical origin (with the exception of marmor Luculleum discussed in section 2.1 below) and often gives a description of their appearance. Many of the names and prices recorded in *Price Edict of Diocletian* (303 CE) are in accordance with those found in Pliny.\(^ {108}\) Other sources, such as Strabo (late 1\(^ {st} \) c. BCE), Statius (late 1\(^ {st} \) c. CE) and Pausanias (mid 2\(^ {nd} \) c. CE), discuss marble names, applications and quarry locations, although there are numerous inconsistencies in these descriptions (the ancient nomenclature of individual marbles and their sources will be discussed in subsequent sections). The names of marble types commonly found in modern scholarship — and for consistency, within this thesis — were coined by the Renaissance stone masons, the *scalpellini*.\(^ {109}\) Many of these names emphasize colour rather than origin, for instance *giallo antico*, *rosso antico*, *marmo bianco* and *nero antico*.\(^ {110}\)

The Mediterranean has a rich deposit of marbles that allowed for systematic exploitation that was previously unmatched. The *Price Edict of Diocletian* is the only ancient source available to modern scholars containing the prices of nineteen different types of marble or granite. *Giallo antico* (*Numidici*) and *pavonazzetto* (*Docimeni*) are among the most expensive, listed at 200 *denarii*, followed by *africano* (*Lucullei*) at 150 *denarii*, and *granito del foro* (*Claudiani*) and *cipollino* (*Carysti*) at 100 *denarii*.\(^ {111}\) Modern scholars have attempted to rationalize the principles governing price within the edict, those these are still not clearly understood.\(^ {112}\) The determination of the cost was likely based on a combination of quarry effort, location and difficulty of transport (relative distance to water, for example), as well as on the quality and coloured aesthetics of the materials. That said, however, prices still varied and were seemingly determined on a case-by-case basis.\(^ {113}\) Regardless of its ambiguity and late date, the *Price Edict of Diocletian* still remains an important and unique guideline for the cost of ancient marbles.

\(^ {108}\) Erim and Reynolds 1970, 133, xxxii.a; Pliny *NH* 36.

\(^ {109}\) Russell 2013, 10.

\(^ {110}\) Bradley 2005, 1.

\(^ {111}\) Erim and Reynolds 1970, 133, xxxii.a. The most expensive stones were Purple Porphyry (*Porfyritici*) and Lacedaemonian porphyry (*Lacedaemonii*) listed at 250 *denarii* (the stones range from 40 to 250 *denarii*).

\(^ {112}\) Russell 2010, 33-36. See also Long 2017.

\(^ {113}\) Russell 2010, 33-36.
With the exception of *granito del foro*, the integration of these stones into Roman architecture began in the 1st century BCE. Pliny records the introduction of some stones in Rome — usually in the private houses of Roman statesmen — however, the archaeological evidence does not always align with Pliny’s references.\(^{114}\) The Romans had evidently developed a taste for coloured marble, but archaeological evidence demonstrates that the trend did not take hold immediately, as marble was slowly imported over the course of this period, due to the great distances of the quarry.\(^{115}\) In the wake of Augustus’ reign, however, coloured marble became the most sought-after architectural and decorative material. His forum complex was considered by Pliny to be among one of the most beautiful buildings in the world\(^{116}\), utilizing such marbles as *giallo antico*, *africano*, *pavonazzetto*, and *cipollino* for the decoration of veneers, pavements and monolithic columns. Nearly one hundred years later, Trajan built the last, and most monumental, of the Imperial Fora, surpassing those of his predecessors in both size and grandeur. The marbles that are most central to the Imperial Fora of Augustus and Trajan will be examined in greater detail within this chapter (see also Appendix 1 for an overview).

2.1 *Giallo antico*

Originating from the Roman province of Numidia, now Tunisia, this yellow marble was referred to by the scallpelini as *giallo antico*, due to the brilliant colour of the stone. *Giallo antico* can be found in a variety of shades that differ even within the same quarry area. It is a compact, fine-grained limestone that varies from ivory to golden yellow, to a deep orange. In some instances, *giallo antico* contains dark-yellow or reddish-brown veining and often has a brecciated appearance (Figure 9).\(^{117}\) *Giallo antico* is frequently mentioned in the ancient literature, where it is mainly referred to as either Numidian or Libyan marble. Pliny refers to it as *marmor Numidicum*, as does Suetonius.\(^{118}\) It is also listed as Numidian in the Price Edict of Diocletian.\(^{119}\) In the fifth century CE, Sidonius Apollinaris refers to columns from the Numidian hills, likening the stone to ivory.\(^{120}\) Martial and Statius, both writing in the late first century CE, refer to the stone as being of Libyan (*Libycus*) origin.\(^{121}\)

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\(^{114}\) See for example Pliny *NH* 36.4-8;  
\(^{115}\) The first stones imported to Rome were white marble from Greece.  
\(^{116}\) Pliny *NH* 36.102.  
\(^{117}\) Tegethoff 2002, 87; Röder 1988, 91; Röder 1993, 18.  
\(^{118}\) Pliny *NH* 36.49; Suet. *Caes.* 85.  
\(^{119}\) Erim and Reynolds 1970, xxxii.a.  
\(^{120}\) Sid. Apoll. *Poems* 2.149.  
Additionally, Pausanias stated that there are a hundred columns from the Libyan quarries in the gymnasium of Hadrian in Athens.\textsuperscript{122} Propertius, in the late first century BCE under Augustus, writes about the ‘Punic columns’ of the Temple of Apollo on the Palatine, referencing the ethnic term for the North African or the Carthaginian area.\textsuperscript{123} The more common names, Numidian and Libyan reference giallo antico by origin as opposed to colour and appearance. In comparison to the other marbles in circulation at the time, giallo antico has fewer name variants; this may be the result of the prominence of the Numidian quarries, given that they were the only source of yellow stone known to the Romans.

The Numidian quarries were located in the hills of ancient Simitthus, modern Chemtou, in northwest Tunisia (Figure 10). These quarries were first worked by the local kings of Numidia in the second century BCE. Historical and archaeological evidence indicates that giallo antico was used in the royal shrine of Massinissa, dedicated by his heir Micipsa.\textsuperscript{124} It was located on top of one of the hill peaks of the quarry, labelled the Tempelberg peak by German archaeologists.\textsuperscript{125} A few blocks from the foundations of this altar are still in situ and evidence from the quarries support this early use.\textsuperscript{126} The Romans were likely aware of giallo antico while it was still the property of the local kings, due to an alliance between Rome and the Numidian kings.\textsuperscript{127} This likely set the precedent for its symbolic ties to royalty.\textsuperscript{128}

\textit{Giallo antico} was one of the earliest marbles to have been imported to Rome during the Late Republic and was commonly used throughout the Imperial period for veneer, pavements, monolithic columns and, less frequently, for statues.\textsuperscript{129} During the Roman era the Romans quarried a considerable amount of the marble, which ranges from 2000 to 3000 m\textsuperscript{3}.\textsuperscript{130} According to Pliny, the first instance of giallo antico in Rome was found in the house of Marcus Lepidus.\textsuperscript{131} Lepidus imported the marble in rough blocks and was reported to have used the yellow marble as door-sills for which he was sharply criticized. \textit{Giallo antico} was a highly prized marble and, at the time, had royal associations, as its quarries were still

\begin{itemize}
\item\textsuperscript{122} Paus. 18.9.
\item\textsuperscript{123} See Telmini et al. 2014, 113.
\item\textsuperscript{124} Räkob 1979, 120-233.
\item\textsuperscript{125} There are two other peaks named Stadtberg and Gelber Berg. Röder 1993, 17; Räkob 1979, 119-120; Fant 2001a, 147; Quinn 2013, 193-194; Fankes 2014, 261. Massinissa had fought in the Second Punic War against the Carthaginians as any ally of Rome and had united the Numidian tribes under one kingdom, with the support of the Romans, founding short-lived dynasty. (See also Walsh 1965-146-160 on Massinissa’s involvement in the Punic Wars).
\item\textsuperscript{126} Räkob 1979, 120-233.
\item\textsuperscript{127} Pensabene 2002, 4; Gnoli 1988, 166-168.
\item\textsuperscript{128} Pensabene 2002, 4; Gnoli 1988, 166-168.
\item\textsuperscript{129} Röder 1988, 93.
\item\textsuperscript{130} Röder 1993, 18.
\item\textsuperscript{131} Pliny \textit{NH} 46.46.
\end{itemize}
in the procession of the Numidian kings. Lepidus was criticized by Pliny for using such a prestigious stone in a menial setting.\(^{132}\) Pliny’s criticism may also have been a projection of first century CE disdain for the use of marble by the rich to decorate their private homes.\(^{133}\)

In 46 BCE, with the expansion of the African province under Julius Caesar, it is reasonable to suppose that royal quarries were taken into Roman ownership.\(^{134}\) Suetonius associates *giallo antico* and the African province with Julius Caesar. On the occasion of Caesar’s death (44 BCE), the Roman people erected a twenty-foot pillar made of *giallo antico* in his memory at the site of his funeral pyre within the Roman Forum. This pillar was supposedly inscribed with the words: ‘To the Father of his Country’.\(^{135}\) The *giallo antico* column was a mark of Caesar’s political and military career, a visual reminder of what he had contributed to the Roman state through his triumphs. There are no archaeological remains of the column, which may be the result of Dolobella removing it shortly after its erection or as following the construction of the Temple of the Deified Julius on the same site.\(^{136}\)

Archaeological finds dating back to the Augustan era show that *giallo antico* was used in a number of public buildings and temples. For example, *giallo antico* columns were found in the cella of the Temple of Apollo Sosianus in the Forum Boarium. Remains (32-28 BCE) (Figure 11). Excavations have also uncovered *opus sectile* floors within the same building, which feature *giallo antico* in conjunction with *pavonazzetto, africano, portasanta* and *cipollino*.\(^{137}\) Monolithic columns used in the Temple of Apollo on the Palatine (28 BCE) were described by Propertius (ca. 20-16 BCE) as ‘golden porticoes’; fragments of *giallo antico* columns were uncovered at this site.\(^{138}\) In the Basilica Aemilia, a preserved section of the floor with an Augustan date includes *giallo antico* alongside other polychrome marbles.\(^{139}\) The Forum of Augustus, meanwhile, is the first instance of a large-scale use of *giallo antico* for fluted columns and *opus sectile*: evidence from the quarries supports an increase in use of *giallo antico* in the first century BCE, where there

\(^{132}\) Pliny *NH* 36.49.  
\(^{133}\) Pliny *NH* 36.8.  
\(^{135}\) Suet. *Caes.* 85.  
\(^{136}\) Cic. *To Att.* 15.  
\(^{137}\) De Nucio 2002, 152, fig. 4; De Nuccio and Unagaro 2002, Sexione IX fig.147-148.  
\(^{138}\) Augustus *Res Gest.* 4.19; Propertius 2.31 (Katz (2004, xxxv) dates Book II to 26 BCE); Pensabene 2002a, 5; De Nuccio and Unagaro 2002, Sexione VIII card 140; *LTUR I* 1993, 55.  
\(^{139}\) *LTUR I* 1993, 165.
was intense quarrying that extended extractions from the Tempelberg peak to the Gelber Berg.\textsuperscript{140}

\textit{Giallo antico} continued to be used in Rome by Augustus’ successors to adorn imperial buildings such as baths, temples, porticoes, and the emperors’ palaces, but was scarcely used outside of Italy, bar a few large public monuments.\textsuperscript{141} In Rome, \textit{giallo antico} was used for columns in the \textit{Domus Flavia}, especially for the great peristyle and interior halls.\textsuperscript{142} The Forum of Trajan was adorned with large quantities of \textit{giallo antico}, where it was used to decorate columns, pavements and statuary. The temple of Venus Genetrix, rebuilt by Trajan, contained both columns and pavements in \textit{giallo antico}.\textsuperscript{143} It was used in the Baths of Trajan and in Hadrian’s Pantheon (125 CE) — eight fluted monolithic columns are still preserved, as well as \textit{giallo antico} pavements and veneer (Figure 12 & Figure 13). This coincides with the continued and more intense quarrying of \textit{giallo antico} that began in the second century CE, which stripped a huge portion of the quarry face.\textsuperscript{144}

At the beginning of the fourth century CE, during Diocletian’s reign, \textit{giallo antico} was still one of the most widely used decorative marbles, albeit one of the most expensive (200 \textit{denarii}).\textsuperscript{145} The cost of quarrying and transportation was a major consideration in the price. The \textit{giallo antico} quarry lay inland, 50 km from the Mediterranean Sea. At the time, there were two possible methods of transporting the marble to Rome — via the Bagradas river\textsuperscript{146} to the town of Utica on the coast or by road transport from Simitthus to Thabraka, another port west of Utica. The Bagradas river would have been the ideal route, however, it was only reliable for part of the year, due to low water levels. By the early second century CE, as a result of silt build up, the river was no longer a viable transport option.\textsuperscript{147} To circumvent this and seasonal difficulties, a road between Simitthus and Thabraka appears to have been built specifically for the transportation of marble; this theory is supported by the discovery of column shafts along this route.\textsuperscript{148} The earliest date assigned to the construction of the road is based on the earliest mile stone found, which is attributed to the Emperor Hadrian (129 CE).\textsuperscript{149} Even before the silting of the Bagradas river, transportation this way was not always available, which was a significant factor in the high cost of the

\begin{itemize}
\item \textsuperscript{140} Röder 1988, 93.
\item \textsuperscript{141} Fant 1993, 153. See also Fant 2001a.
\item \textsuperscript{142} Richardson 1992, 115.
\item \textsuperscript{143} Meneghini 2009, 50-51.
\item \textsuperscript{144} Röder 1993, 21.
\item \textsuperscript{145} Erim and Reynolds 1970, xxxii.a.
\item \textsuperscript{146} Known today as the Mejerda river.
\item \textsuperscript{147} Russell 2013, 138; Chaouali 2013, 350.
\item \textsuperscript{148} Chaouali 2013, 350.
\item \textsuperscript{149} Chaouli 2013, 335; 350.
\end{itemize}
stone. An alternate route would have been needed long before the second century, thus the dating of the road may be attributed to a rebuilding of the road by Hadrian.\(^{150}\)

The distance traversed, and difficulty associated with transporting the stone added to its cost and, ultimately, its prestige. The early association with the Numidian kings would also be a driving force behind the prestige of the stone. As previously mentioned, this was the only known source to the Romans for a yellow stone and satisfied the tastes of the emperor.

### 2.2 Africano

Another marble that features in the architecture of the Fora of Augustus and Trajan is africano. The colour of this stone varied; it is a breccia of red, white, and pink within a black matrix, but can also be dark green or grey (Figure 14). The Renaissance name of africano is not derived from the location where the stone was extracted, as it does not originate in Africa, but rather for its dark colouring.\(^{151}\) Identifying africano can sometimes be challenging as the coloured inclusions form many different shapes, sizes, and colours.\(^{152}\) The precise location for the ancient quarries of africano was the subject of much discussion. Pliny’s writings refer to a marble resembling the description of africano as marmor Luculleum (NH 36.50) as originating from the island of Chios in the eastern Aegean; however, work by M.H. Ballance in 1966 conclusively placed them in western Turkey. During a survey near the ancient city of Teos, Ballance identified the africano quarries (Figure 10); these now lie beneath the water of Karagöl Lake.\(^{153}\) Pliny’s description had generated previous controversy among modern scholars as no marble resembling the dark stone he described has been found on Chios.\(^{154}\) Either Pliny was mistaken or perhaps there were discrepancies in the translation of the word ‘Teos’ in later manuscripts of the *Natural Histories*.\(^{155}\) Apart from Pliny and the *Price Edict of Diocletian*, the only other reference to marble and Teos in the ancient texts comes from Dio Chrysostom (late 1\(^{st}\) c. CE), who makes reference to Teos and its beautifully coloured marbles.\(^{156}\) The lack of other ancient references to Teos, may have contributed to the association of Chios with marmor Luculleum.

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\(^{150}\) Russell 2013, 138.
\(^{151}\) Gnoli 1988, 174; Ballance 1966, 79.
\(^{152}\) Gnoli 1988, 174.
\(^{153}\) Ballance 1966, 79-81; Fant 1989b, 206.
\(^{154}\) Fant 1989b, 207-209. The island of Chios produces the stone known as Portasanta.
\(^{155}\) Eichholz (trans.) gives a note of an unclear reading of Teos. See also Fant 1989b 207-209.
\(^{156}\) Dio Chrys. *Orat. On Welth* 79.2; Erim and Reynolds 1970, xxxii.a.
The name *marmor Lucullueum* given by Pliny to the dark stone is an unusual categorization for marble; it was named after an individual, the general Lucius Lucullus, who spent time in Asia Minor during the Third Mithridatic War.\(^{157}\) Pliny credits him with first introducing the marble to Rome in 74 BCE; Lucullus’ association with the east, and the time spent during the campaign, also drew attention to the origin of the marble in Asia Minor.\(^{158}\) Pliny gives no indication as to where the marble was first used. It is possible that during his time in Asia Minor, Lucullus may have had control over the quarry in Teos. Through his studies of the economy and quarry at Teos, Fant suggests that Pliny’s use of the word *invenho* in the commercial sense implies that Lucullus brought the marble back to Rome to sell, monopolizing on the increased desire for coloured marble.\(^{159}\) Pliny also states that soon after Lucullus, Marcus Scaurus used 360 columns of *africano* marble columns for the *scaenae frons* of his temporary theatre in 58 BCE. Scaurus caused a scandal by moving 38-foot columns, the largest of those adorning the theatre, to be placed in the halls of his private house.\(^{160}\) The size of the columns suggests that the quarries were highly developed at this time.\(^{161}\)

*Africano* marble was mainly used for columns and pavements and was reserved for use only in the city of Rome, perhaps due to the size of the quarries and limited supply.\(^{162}\) Between 32 and 29 BCE, in Campus Martius, the Temple of Sosianus was restored, initially by Sosius and continued by Augustus.\(^{163}\) The interior of the cella was decorated with a double order of unfluted *africano* columns (Figure 11).\(^{164}\) Viscogliosi proposes that the *africano* columns used in the restoration were taken from Scaurus’ temporary theatre, as there would have been a stockpile from the 360 already worked columns. While this is a reasonable assumption, there is no concrete evidence to support this claim.\(^{165}\) Columns used in the Basilica Aemilia dated to the later restoration of 22 CE, under Tiberius, lay abandoned in the Forum Romanum.\(^{166}\) In the Temple of Peace, unfluted monolithic marble was also used.

\(^{157}\) Plut. *Com. Cim. Luc.* 1.6; Cicero’s *De Imperio* (20-21) praises Lucullus during the Mithridatic War.
\(^{158}\) Pliny *NH* 36.50; Bradley 2005, n. 2.
\(^{159}\) Pliny *NH* 36.9; Fant 1989b, 210. See also Dworakowska 1990, 253-262.
\(^{160}\) Pliny *NH* 36.2.4-7.
\(^{161}\) Fant 1989b, 211.
\(^{162}\) Fant 1989b, 217: Dio Chrysostom remarks that the quarries did little to benefit the local towns.
\(^{163}\) *LTUR I* 1993, 51.
\(^{164}\) *LTUR I* 1993, 53; De Nuccio and Ungaro 2002, Sexione IX fig. 146.
\(^{165}\) Viscogliosi 1995, 63 (Viscogliosi observes that there were a number of projects underway around the same time which used *africano* columns); Davison 2000, 141-142.
\(^{166}\) Fant 1989b, 207 n.4. Initially it was thought, based on Pliny’s assertion of an early 1st c. BCE date, that *africano* was used in an earlier reconstruction of the Basilica Aemilia which would have made these the earliest evidence for *africano* in Rome.
africano columns were used along the northwest colonnade and date to the Flavian construction.\footnote{LTUR IV 2000, 68; Meneghini 2009, 80; FUR 16a.}

Within the Forum of Augustus, africano marble was used in the decoration of columns and pavements. Comparatively, in the Forum of Trajan, it was only used in the opus sectile floor of aisles in the Basilica Ulpia, which may indicate a limitation to the availability of the marbles from the small quarries of Teos during Trajan’s time. It is known that the price of africano in the fourth century CE was set at 150 denarii, although there is some doubt on its availability.\footnote{Russell 2013, 195; Türk et al 1988, 85-90; Erim and Reynolds 1970, xxxii.a.} The quarries at Teos were in close proximity to the sea, only 3 km from the harbour city, which would have made transport costs lower in comparison to other inland quarries, such as giallo antico or granito del foro. The high price, therefore, may be attributed to the small quarries and the limited stock; it is estimated that only 3500 m\(^3\) of africano marble was quarried.\footnote{Fant 1989b, 213.} Africano was not widely found outside of Italy, which perhaps suggests a tight imperial control over the marble due to high demand for Imperial projects.\footnote{Russell 2013, 195; Fant 1989b, 213.}

\section*{2.3 Cipollino}

Cipollino was quarried in the south of the island of Euboea (Figure 10). Cipollino marble is a coarse-grained, compact marble with alternating and undulating bands of light and dark green (Figure 15). The scalpellini named the marble after the Italian word for ‘onion’, as its colouring is reminiscent of the pattern of an onion.\footnote{Vanhove 1996, 37.} In ancient texts, cipollino was admired for its distinct colour and pattern, with emphasis placed on its resemblance to the sea. In his descriptions of the columns of the Domus Flavia, Statius states that those made from cipollino marble contain “veins similar in colour to the deep sea” and “rocks rivaling the greenish-grey sea”.\footnote{Stat. Silv. 1.2.147-158; 4.2.18-31.}

The location of the cipollino quarries was first mentioned by Strabo (late 1\textsuperscript{st} c. BCE) in his descriptions of marmor Carystium and references to the magnificent ‘column quarries’ of Carystos, which were renowned for their monolithic columns during the Imperial period.\footnote{Strabo 9.5.16; 10.1.6.} There is some evidence, based on tool marks from the quarry site known as Myloi in the fifth to fourth century BCE, that the cipollino quarries were worked during
the Greek period, likely for local use. During the Roman era, quarrying on Euboea occurred from the first century BCE, with intense quarrying beginning in the late first century CE until the second century CE under Hadrian and the Severans. The quarry of Euboea was quite large, as archaeologists have identified five main areas with multiple quarry sites, perhaps reflecting the high demand for *cipollino*. Today, abandoned blocks and dressed columns that have not been separated from the parent rock remain visible in the quarries. In the *Price Edict* (301 CE), *cipollino* was still in circulation, as it was listed at 100 denarii, however, the marble was no longer being quarried in Euboea, but rather it was recycled from older buildings.

*Cipollino* was also widely distributed across the Empire and is found in many major Roman urban centers, including Hadrian’s Library at Athens, the marble colonnaded street at Ephesus and in the Forum of Severus at Leptis Magna. Pliny asserts that *marmor Carystium*, or *cipollino*, was in Rome as early as the first century BCE. Pliny cites Corneilius Nepos, who stated that Mamurra, a Roman equestrian from Formiae and chief engineer of Julius Caesar, was the first person to have covered his house in marble veneer on the Caelian Hill. He added that all the columns of the house were made of *cipollino* and Luna marble.

Other documented uses of *cipollino* within the ancient city of Rome include its use as pavements slabs in the *Casa di Livia sul Palatino*, which dates to the Late Republic. As previously mentioned in 2.1, *cipollino* was used in the *opus sectile* floor of the Temple of Apollo Sosianus, along with *giallo antico*, *portasanta*, *pavonazzetto*, and *africano*. Large slabs of *cipollino* marble paired with other polychrome marbles, can still be found in situ in the Basilica Aemilia, dating to the restorations of 22 CE. Large monolithic *cipollino* columns were used in the Forum of Augustus and the Forum of Trajan; this will be explored in greater detail in Chapter 4. Monolithic unfluted columns of *cipollino* were also found in the Temple of Antoninus and Faustina (141 CE); these columns, some of the

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174 Chidiroglou 2011, 50.
175 Sutherland and Sutherland 2002, 252. (fig. 2, 253). Archaeologists have identified five main areas with multiple quarry sites: Carystos (Myli, Aetos and Kliosi), Marmari (Vatision and Kalogeri), Styra (Kapsala, Agios Nikolaos, Krio Nero, and Kliosi), Animbrio and Karatza (fig.); the remains of the Karatza quarries have been destroyed by twentieth century British excavations and continuous modern quarrying (Sutherland and Sutherland 2002, 252 for further discussion on the number of quarrying areas; Sutherland 2013, 4-6).
176 Sutherland 2013, 18.
177 Sutherland 2013, 57, 72, 85.
178 Pliny *NH* 36.48.
179 Sutherland 2013, 18.
180 Lazzarini 2007, 184; Guidobaldi, Salvatori 1988, 172, fig. 1.
181 De Nuccio 2002, 152, fig. 4.
182 Lazzarini 2007, 184, fig. 5 (large slabs of *cipollino* in the flooring of the Basilica Aemilia).
largest in Rome, were incorporated into and preserved in the façade of the Church of S. Lorenzo in Miranda (Figure 16).\(^{183}\)

### 2.4 **Pavonazzetto**

_Pavonazzetto_, as it was known during the Renaissance, is a fine grained, compact white or yellowish stone with strong purple inclusions and veining that can range from violet to grey (Figure 17). _Pavonazzetto_ is referred to in the ancient sources in different ways, such as _Synaddicum_, _Docimium_, or _Phrygium_. The name _Synaddicum_ references the city of Synnada, which perhaps was the administrative center of the quarries.\(^{184}\) The stone was called _Dokimean_ by the locals, after the local quarrying town.\(^{185}\) The name _Phrygium_ is descriptive of the ethnic and regional area of Asia Minor.\(^{186}\)

The marble was quarried at Docimium in central Asia Minor, near the modern city of Iscehisar, Turkey (Figure 10). Many of the quarry inscriptions date from the time of Domitian in the late first century CE to the second century CE, a time when the production output had been scaled up in order to meet Imperial demand.\(^{187}\) There is scant evidence left that show the original _pavonazzetto_ quarries; this is due to their being used during the 1980s.\(^{188}\)

The exploitation of the _pavonazzetto_ quarries began in the late first century BCE, possibly in the early years of Augustus’ reign, as there is no indication in any texts of pre-Roman exploitation.\(^{189}\) A reference from Tibullus’ _Elegies_ (d. 19 BCE) is the earliest mention of _pavonazzetto_ columns in Rome.\(^{190}\) Strabo corroborates this claim by stating that the Romans were only initially quarrying marble for small scale objects. This theory is supported by archaeological findings. A _domus_, which was discovered under the _Ludus Magnus_, contained a pavement with marble insertions, including fragments of _pavonazzetto_.\(^{191}\) Archaeologists have dated this early example of small-scale use of _pavonazzetto_ to around 100 to 50 BCE.\(^{192}\) Due to the expansion of the empire and the surge

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\(^{183}\) Sutherland 2013, 19.
\(^{184}\) Strabo 12.9.14; Tibullus _Eleg_. 3.3.13; Pliny _NH_ 35.3; Hirt 2010, 114; Gnoli 1988, 145; Russell 2010, 188, 155; Fant 1989a, 7.
\(^{185}\) Strabo 12.8.14.
\(^{186}\) Pliny _NH_ 36.102; Horace _Odes_ 3.1.41; Stat. _Silv_. 1.2.147-158; Juvenal _Sat_. 14.307; Fant 1989a, 7; Burrell 2009, 782.
\(^{187}\) Fant 1989b, 9-10.
\(^{188}\) Fant 1989b, 13-16; Hirt 2010, 27-28 (there is no architectural structure associated with the site and very little evidence remains for the extraction zones).
\(^{189}\) Fant 1989a, 7.
\(^{190}\) Tibullus _Eleg_. 3.3.13-14; Fant 1989a, 7.
\(^{191}\) Guidobaldi and Salvatori 1988, 171-172.
\(^{192}\) Guidobaldi and Salvatori 1988, 173.
of wealth and extravagance exhibited in the late first century BCE, the Romans began to quarry on a much larger scale. Strabo suggests that the output of great monoliths may be attributed to a change of control and a transfer of quarry sites to Imperial hands.

During the Roman era, pavonazzetto was used for veneers, slabs, columns and statues, especially in depictions of the east. Augustan pavements in the Temple of Apollo Sosianus (ca. 32-25 BCE) are inlaid with pavonazzetto and other marbles, such as giallo antico, africano, portasanta and cipollino, in opus sectile. The Basilica Aemilia in Rome, which was reconstructed in 14 BCE and features twenty colossal statues of barbarians made of pavonazzetto and two of giallo antico decorated the interior of the Basilica Aemilia is an early example of the use of pavonazzetto (this will be elaborated on in Chapter 5). The purple marble was used on a larger scale for the first time in the Forum of Augustus, which was dedicated in 2 BCE: the scale of pavonazzetto used the Forum of Trajan far exceeded that in the Forum of Augustus, due to greater supply.

Pavonazzetto continued to be used well into the first century CE. It was found in monolithic columns and floor and wall revetments in the Domus Flavia, as well as in fluted monolithic columns within the Forum Transitorium. At the beginning of the second century CE, Trajan, exploited the Docimium quarries for revetments and statuary throughout his Forum this coincides with increased inscriptive evidence from the quarries.

Like giallo antico, pavonazzetto was an important and coveted stone in the Imperial period. Together, giallo antico and pavonazzetto were the second highest priced stones at 200 denarii. The use of pavonazzetto in combination with giallo antico (and sometimes with africano) became a common architectural decoration in the Augustan period; this continued into the time of Trajan and Hadrian. The common pairing of the two stones may have resulted in their equal pricing. The expense associated with pavonazzetto may equally be attributed to the landlocked position of its quarries, which were located approximately 400 km from the sea. Pavonazzetto had to be transported by land to Ephesus

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194 Fant 1989a, 7-8.
195 LTUR I 1993, 51; 53; De Nuccio 2002, 152, fig. 4.
199 Erim and Reynolds 1970, xxxii.a
200 De Nuccio 2002, 152.
since there was no navigable river in close proximity. Nonetheless, pavonazzetto was highly coveted and used in many imperial buildings.

2.5 Granito del Foro

Granito del foro is a coarse-grained granite. Granite is an extremely hard and durable igneous rock formed during the cooling and solidification of magma. Granito del foro was quarried in a remote area of Egypt at Mons Claudianus in Gebel Fatrehe, which is located in the Red Sea mountains of the Eastern Egyptian desert (Figure 10). The granite is grey, with white and black speckles, and was considered a very distinct decorative stone in Rome (Figure 18). It is referred to as marmor Claudianum in the Price Edict of Diocletian. Its Italian name, granito del foro (‘granite of the forum’), is due, in part, to its extensive use in the Forum of Trajan.

Under the Roman Empire, the use of granito del foro seems to have been very restricted when compared to some of the other available decorative stones, and may have only been available to the Emperor. Fant compares the use of granito del foro by the Emperors to the use of Egyptian pink granite from Aswan by the Egyptian Pharaohs. It is likely that the grey plutonic rocks, commonly used in non-Imperial buildings and studied by Peacock and Maxfield in their 1997 survey were not granito del foro from Mons Claudianus, but stones that came instead from Calabria, Italy and, perhaps, another source in western Turkey. Granito del foro was not exploited prior to the establishment of the quarries by the Romans. Even though the name Mons Claudianus indicates a Claudian founding date, the earliest date of permanent quarry settlement at this location has been identified from an ostracon as 68 CE. This Neronian date also coincides with the first use of granito del foro in Rome in the Domus Transitoria of Nero. Granito del foro was also used on a large scale under Trajan, at which point the use of the stone peaked. Hadrian used the stone in his Villa at Tivoli, the Pantheon and the Hadrianic construction of the temple of the Deified Trajan in the Forum of Trajan (see Chapter 4). Granito del foro was

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201 Hirt 2010, 28. See also Russell 2013, 138-139.
204 Erim and Reynolds 1970, xxxii.a.
205 Fant 2001a, 152-153; Peacock and Maxfield 1998, 334.
206 Fant 200a 150-151.
208 Bingen 2016, 10 (suggests that under the Emperor Claudius some quarries of the grey stone were worked in restricted areas that Greek documents were referring to as Klaudianon).
mainly used in the construction of monolithic columns, eight of which still stand in situ in the porch of the Pantheon (Figure 19). There are also fragments in the Forum of Trajan, where it was used for pavements, and large columns.\textsuperscript{210}

There was intense quarrying under Imperial control from the first century CE until the end of the third century CE. Based on quarry surveys, it is known that there were 130 quarry sites.\textsuperscript{211} The site of Mons Claudianus developed an elaborate settlement due its remoteness (first century CE to the fourth century CE), which is similar to the other major quarries of the eastern desert.\textsuperscript{212} The quarry was located 130 km from the Nile River and 50 km from the Red Sea.\textsuperscript{213} The Romans developed a road system specifically for stone transport to connect the quarries of the eastern desert with the Nile. A series of forts were constructed along this road to separate the long journey across the treacherous desert.\textsuperscript{214} From there, the stone was transported up the Nile to Alexandria and then on to Rome. The cost of transporting the stone was immense, but the manpower and capital that went into building these systems display the lengths and efforts the emperors went to in order to import the Egyptian stones to Rome.

According to the \textit{Price Edict of Diocletian}, \textit{Granito del foro} was 100 \textit{denarii}, making it the seventh most expensive stone, together with \textit{cipollino} and Aswan granite.\textsuperscript{215} Interestingly, \textit{granito del foro} and purple porphyry, the most expensive stone, both come from the same region of the Eastern Egyptian desert, however there was a 150 \textit{denarii} price difference between them. The appearance of the stones may have taken priority in the fourth century CE, reflecting the taste for brightly coloured marbles over monolithic columns of the early Imperial period.\textsuperscript{216}

\begin{flushright}
\textsuperscript{210} Lazzarini 2002, 235. \\
\textsuperscript{211} Peacock and Maxfield 1997, 177-189 (descriptive notes of each individual quarry); Wilson Jones 2000, 210 (the number of quarries may indicate the need to hunt around for good beds of stone). \\
\textsuperscript{212} Klemm and Klemm 2001, 634. There was a fortified settlement which was the administrative central point of the quarry area with surrounding settlements; this area is attributed to a later phase, probably late first century to early second century CE (Bingen 2016, 10). The population was a mix of civilians, workers and military and over the course of development there was a main fort, a bath, grain storage facility, a temple for Zeus Helios and Serapis and private housing area (Hirt 2010, 13; 2015, 302). \\
\textsuperscript{213} Russell 2013, 80. \\
\textsuperscript{214} Hirt 2010, 24; Maxfield and Peacock 2007, 414 (the road system is attributed to all phases of development despite there being no evidence for its specific dating). \\
\textsuperscript{215} Erim and Reynolds 1970, 133, xxxii.a. \\
\textsuperscript{216} Russell 2013, 35.
\end{flushright}
2.6 Conclusion

Marble was an integral part of the urban fabric of Imperial Rome. Over the course of this chapter, the ancient names of the stones, their geological composition, their sources as well as their use within Roman architecture have been outlined. Ancient literary sources and archeological evidence provides a broad narrative of the historical precedence surrounding the introduction, usage and demand for the specific types of marble used with the Imperial Fora of Augustus and Trajan. The large scale on which the Romans were able to quarry marble for monoliths and monumental architecture is impressive. The next chapter will further develop this narrative of this thesis by considering the architectural development and evidence for the stones in the five imperial fora.
Chapter 3

Putting the Imperial Fora in context: architectural plan, development and the use of coloured marble

The aim of this chapter is to outline the historical background, the development of the architectural form and the use of coloured marble in the Imperial Fora over a 150-year period, beginning with the forum of Julius Caesar originally dedicated in 46 BCE.\footnote{LTUR II 1995, 300; Dio Cass. 43.22.1-2.}

In the late first century BCE, Vitruvius described the ideal Italic fora as rectangular in shape, with unifying porticoes on three sides and buildings in proportional relations to each other.\footnote{Vitr. On. Arch. 5.1.} Within Republican Italy there are many examples of the easily identifiable form — Alba Fucens (304 BCE), Minturnae (296 BCE), Pompeii (second century BCE to 79 CE), Cosa and Paestum (both 273 BCE) (Figure 20, Figure 21 & Figure 22).\footnote{Frakes 2014, 251-251; 255-256; Favro 1996, 71.} This form was a development of urban planning and architectural development during the Republic. The basic layout of the Imperial Fora recalled the design of the Republican Italic fora and was defined by porticoes and a tall temple, with the exception of the Temple of Peace, which did not have a tall temple.\footnote{Favro 1996, 175; Vitruvius On Arch. 5.1.}

Julius Caesar built his own public space following the ideal architectural form of the Italic Fora. His intention was to expand on the Forum Romanum to the northwest and thereby provide additional space for the increased volume of activity in the city’s center. The Forum Romanum was the focus of political, religious and administrative life in the Republic. The development of the area over the centuries resulted in a number of irregularly spaced buildings and monuments. Its layout did not follow the ideal model set out by Vitruvius, as it was a vaguely trapezoidal form with irregular sides (Figure 23).\footnote{La Rocca 2015, 25; Favro 1996, 196.} The Forum Romanum remained constrained by the pre-existing structures that contained loose interrelationships lacking architectural unity.\footnote{Favro 1996, 196.} Additionally, the limited available space would not allow Caesar to build a monument that would have had as significant an impact on the area. Caesar created his own public complex adhering to the basic architectural form...
of the ‘ideal’ forum; Augustus modelled his own forum on this some forty years later. The Forum of Julius Caesar and the Forum of Augustus were an extension of the old Forum Romanum rather than an alternative to the original space, creating two ideologically distinct spaces. The ancient buildings of the Forum Romanum were a symbol of the old Republic while the new Imperial Fora were symbols of a new political order. According to contemporary sources, the Fora of Julius Caesar and Augustus were built out of necessity, driven by the need for additional space for administration and judicial activity. The succeeding Roman Emperors — Vespasian, Domitian/Nerva and Trajan — capitalized on the space available to them in the surrounding area, modelling their own fora on those of their predecessors. There were some innovations and variations to the original plan laid out by Caesar. The collective complexes were built between 46 BCE and 113 CE.

In the center of the dense urban environment of Rome, these internalized complexes were isolated from the rest of the visual confusion and the irregularly-orientated structures of Rome; the porticoes and enclosures, therefore, offered unadulterated propagandistic messages. Each complex had its own set of imagery, ideology and inscriptions orchestrated by the Imperial patron in order to present an idealized history and self-promoting, glorified version of the Emperor’s achievements. The individual complexes coexisted together, and their close proximity invited comparisons and associations between the past and present emperors, both in terms of their ideology and design. The complexes were considered to be extravagant, massive buildings, with equally rich material. All of the Imperial Fora were unified in their ideal form and lavish use of coloured marble for pavements, wall revetments — although the marble type is difficult to determine at times due to the lack of evidence as a result of spoliation — and coloured marble columns. All of the coloured marble columns were monolithic, a characteristic of Roman architecture.

This chapter is mainly concerned with the evidence and challenges presented in the archaeological evidence of the Forum of Julius Caesar, Forum Transitorium and the

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223 Favro 1996, 175.
224 Suet. Aug. 29.
225 The Forum of Julius Caesar dedicated 46 BCE/29 BCE (LTUR II 1995, 300; Dio Cass. 43.22.1-2; App. Civil Wars 2.102; Aug. Res Gest. 20); the Forum of Augustus dedicated 2 BCE (LTUR II 1995, 289; Ovid Fast. 5.549-550; Dio Cass. 55.10); the Temple of Peace dedicated 75 CE (LTUR IV 2000, 67; Dio Cass. 65.15); the Forum Transitorium dedicated 96 CE (Suet. Dom. 15; Meneghini 2009, 106; Jones 1992, 100; LTUR II 1995, 308); the Forum of Trajan dedicated 112/113 CE (Smallwood 1966, 22.34-35 following Degrassi 1947; LTUR II 1995, 348; CIL VI.960; Smallwood 1966, 22.54-56).
226 La Rocca 2015, 25.
227 Zanker 2015, 59.
228 Favro 1996, 171; Ungaro 2007b, 6; Pliny NH 26.102; Amm. Marc. 16.10.14.
229 Vitr. On Arch. 5.1. The marble type for wall revetments is difficult to determine at times due to the lack of evidence as a result of spoliation.
Temple of Peace. A greater understanding of these fora will give context to the area of the Imperial Fora. The historical and architectural development of the Forum of Augustus and the Forum of Trajan will be outlined briefly in this chapter for chronological coherence, however, they will be dealt with in greater detail later in this thesis.

3.1 **Forum of Julius Caesar**

In 54 BCE, the year after the dedication of the Theatre of Pompey in the Campus Martius, Julius Caesar had purchased land for a new building project north of the Forum Romanum. Caesar had planned to rival Pompey and his Theatre, built in the Campus Martius outside *pomerium*, by building within the sacred boundary of the city. In a passage from a letter by Cicero to Atticus, Cicero discussed Caesar’s intention to enlarge the Forum Romanum by building a complex to the northwest up to the *Atrium Libertatis*, in order to provide additional space for the growing needs of Rome. In 48 BCE, following the breakdown of Caesar and Pompey’s political alliance, ancient literary sources reveal that Caesar had vowed a Temple to Venus Genetrix at the Battle of Pharsalus against Pompey and his forces. Two years after Caesar’s victory, the Forum of Julius Caesar was dedicated with the Temple of Venus Genetrix, in celebration of his triple triumph over Gaul, Egypt and North Africa. According to Suetonius, the Temple of Venus Genetrix was unfinished at the time of its dedication. At the time of Julius Caesar’s death in 44 BCE, the Forum of Julius Caesar was still incomplete. There are very few literary accounts and very little archaeological remains of the original forum, which Julius Caesar inaugurated in 46 BCE, although the basic form was in place. The construction of the complex was taken over by his heir, Augustus, who completed the Forum by 29 BCE.

The Forum of Julius Caesar functioned ideologically as a victory monument and was an incredible self-representation of the Caesar’s political power and achievements, supported by his divine ancestor Venus. There are no early accounts for the daily functions of the complex, although according to Appian, in the mid second century CE, the

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230 Cicero *to Att.* 4.16.7; Suet. *Caes.* 26 (Julius Caesar purchased land for a few million sesterces while still in Gaul); Ulrich 1993, 51.
231 Cic. *to Att.* 4.17.7. The exact location of the Republican *Atrium Libertatis* is unknown.
235 Milella 2007, 94. See also Ulrich 1993 for discussion of the evolution of the planning of the complex by Julius Caesar from 54 to 46 BCE.
236 Aug *Res Gest.* 20; Piny *NH* 35.131; *LTUR II* 1995, 300; Meneghini 2009, 47.
forum was created “not for buying and selling, but a meeting-place for the transaction of public business, like the public squares of the Persians, where the people assemble to see justice or to learn the laws”\textsuperscript{238}. Appian also refers to the square as a \textit{temenos}, the enclosure of a temple sanctuary, thereby revealing its religious functional element. This also alludes to the connection of the Hellenistic market buildings and complexes to ruler cults.\textsuperscript{239} This description should be viewed with caution however, as it may not be an entirely accurate depiction of the way in which the complex functioned in the late first century CE.

The Forum of Julius Caesar was built to the northeast of the Forum Romanum, a prominent and politically significant location (Figure 23).\textsuperscript{240} The Caesarian complex was orientated northwest to southeast, which set the precedent for the axial lines of the sequential Imperial Fora (Figure 1). Measuring ca. 160 x 75 m, the forum was an elongated rectangular open square, surrounded on three sides by covered porticoes that were raised above the level of the main square by 3 steps.\textsuperscript{241} The central court was paved with travertine, a local yellowish-white stone that was a typical Republican period material.\textsuperscript{242} In the center, there was a bronze equestrian statue of Caesar, recorded by many ancient sources who identify the horse as Alexander the Great’s Bucephalus, by the Greek sculptor Lysippus (active in the fourth century BCE).\textsuperscript{243}

The porticoes had a double-aisle separated by a row of columns made of Luna marble drums.\textsuperscript{244} Slabs of Luna marble have also been discovered in the area of the porticoes, for the pavements and wall revetments of the covered space.\textsuperscript{245} Much of the Luna marble decoration is attributed to the Augustan construction, as there is very little evidence to support a Caesarian date. A passage in Pliny testifies that Marmurra, one of Caesar’s chief engineers, used Luna columns in his house in ca. 48 BCE.\textsuperscript{246} This suggests an early exploitation of Luna marble under Julius Caesar around the time of the construction of his forum complex, but there is no indication as to where or if Luna was used by Caesar.\textsuperscript{247} He may have chosen to use Luna marble on the Temple of Venus Genetrix in his forum, as it

\begin{thebibliography}{99}
\bibitem{238} App. \textit{Civil Wars} 2.15.102.
\bibitem{239} Favro 1996, 71.
\bibitem{240} \textit{LTUR II} 1995; Meneghini 2009, 43.
\bibitem{241} Anderson 1984, 45; Meneghini 2009, 44; \textit{LTUR II} 1995, 302.
\bibitem{242} Travertine was found near Tivoli, roughly 30 km from Rome.
\bibitem{244} Meneghini 2009, 44; Milella 2007a, 94.
\bibitem{245} \textit{LTUR II} 1995, 302.
\bibitem{246} Pliny \textit{NH} 36.48-49.
\bibitem{247} Fant 1988, 149.
\end{thebibliography}
was the centerpiece for his complex and took primacy over the porticoes due to its sacred function.

On the short northwestern end of the square, set on a podium 5 m high which served as a speaker’s platform, was the Temple of Venus Genetrix.\textsuperscript{248} The remains that are still visible in the archaeological site dates to the reconstruction of Domitian and Trajan, in the late first and early second centuries CE.\textsuperscript{249} Describing the original temple, Vitruvius cites that it was pycnostyle with inter-column spaces equal to one and half of the column’s diameter, while Ovid (ca. 2 CE) reveals that Luna marble was most likely to have been used for the façade of the temple.\textsuperscript{250} The renovations of the temple of Venus Genetrix were started by Domitian, but was later completed by Trajan and dedicated in 113 CE, as recorded in the \textit{Fasti Ostiensis}.\textsuperscript{251} The \textit{Fasti Ostienses} records the rededication of the Temple of Venus Genetrix in 113 CE, together with the Column of Trajan. Of this later rebuilding, the decoration of the temple was likely altered, but the form was very similar to the original temple of the first century BCE described by Vitruvius.\textsuperscript{252} The temple had eight Corinthian columns across the front and columns running down the sides (12.87 m).\textsuperscript{253} On the present-day site, three columns of the temple façade have been reconstructed on the southwest side (Figure 24). The columns were made of Luna marble, and based on personal observation, they were fluted and constructed of marble drums. The temple’s high podium was not directly accessed via the front, but rather by two side staircases that then led to a frontal staircase (Figure 25). The exterior, including the podium and cella walls, was decorated with Luna marble veneer that has been dated to the Trajanic reconstruction.\textsuperscript{254}

The interior of the temple cella had a semi-circular apse at the end of a hall that contained the cult statue of Venus. The statue is identified by contemporary sources, although the original is now lost.\textsuperscript{255} The cella, reconstructed by Trajan, was richly adorned with coloured marble. On the lateral walls there were two storeys of monolithic coloured columns: \textit{pavonazzetto} on the first storey and \textit{portasanta} columns on the second storey. The marble pavements were of alternating slabs of \textit{giallo antico} and \textit{pavonazzetto}, the same

\textsuperscript{248} Favro 1996, 69; Suet. \textit{Caes.} 78 (Julius Caesar had reportedly met the Senate while seated in front of the temple, a seemingly monarchical act).

\textsuperscript{249} \textit{LTUR II} 1995, 300-301; \textit{Fasti Ostienses} in Smallwood 1966, 22.54-56 following Degrassi 1947.

\textsuperscript{250} Vitr. \textit{De Arch.} 3.3.2; Ov. \textit{Ars Amatoria} 1.83; \textit{LTUR II} 1995, 302.

\textsuperscript{251} \textit{LTUR II} 1995, 300-301; \textit{Fasti Ostienses} in Smallwood 1966, 22.54-56 following Degrassi 1947.

\textsuperscript{252} Milella 2007, 101; Meneghini 2009, 50.

\textsuperscript{253} \textit{LTUR II} 1995, 307; Milella 2007, 94.

\textsuperscript{254} \textit{LTUR II} 1995, 307.

\textsuperscript{255} Pliny \textit{NH} 35.155-156; App. \textit{Civil Wars} 2.102.
marbles used for the pavements throughout the Forum of Trajan.\textsuperscript{256} Compared to the other Imperial Fora, the Forum of Julius Caesar was modestly decorated with coloured marble reserved for the interior of the temple cella.\textsuperscript{257} There is a lack of evidence for the early use of coloured marble in the Forum of Julius Caesar, thus scholars are only able to examine the limited use of coloured marble in the late first and early second century CE.

In the fourth century CE, under Diocletian, significant changes were made to the porticoes of the Forum of Julius Caesar after they were damaged by the fire of 283 CE.\textsuperscript{258} The Luna columns of the porticoes were replaced by \textit{granito del foro}, Aswan pink granite, \textit{cipollino} unfluted monolithic columns and \textit{giallo antico} fluted monolithic columns (Figure 26, Figure 27 & Figure 28).\textsuperscript{259} The arbitrary use of multiple types of coloured marble on both unfluted and fluted shafts reveals that these columns were not specifically quarried for the reconstruction, but rather were already in Rome. Pavements of the porticoes were also discovered during excavations between 1998 and 2000 in the area of the southeastern portico; these featured \textit{granito del foro}, \textit{cipollino}, \textit{giallo antico} and white marble from Docimium.\textsuperscript{260} Some of these marbles are still evident in the Forum of Julius Caesar, which can be viewed from the street level. These are important to the survival history of the Forum of Julius Caesar in the fourth century CE and also reveal the nature of supply and types of marble within Rome at the time. Furthermore, the modest use of coloured marble does not allow us to evaluate the levels of meaning in the application of polychrome marbles in the Forum of Julius Caesar in the same ways as can be done in the Fora of Augustus and Trajan; for example, the use of coloured marble for the delineation and communication of separate spaces, which is examined in Chapter 4.

3.2 \textit{Forum of Augustus} \textsuperscript{261}

In 42 BCE at the Battle of Philippi, Octavian vowed a temple to Mars Ultor for avenging the assassination of Julius Caesar.\textsuperscript{262} The Temple of Mars Ultor was built as the centerpiece

\textsuperscript{256} Meneghini 2009, 50-51. Trajan’s own forum was quite repetitive of \textit{giallo antico} and \textit{pavonazzetto}, we know he had access to an abundant amount of materials based on his own complex. Perhaps \textit{pavonazzetto} was also included in the Trajanic rebuilding to reference his own forum.
\textsuperscript{257} Attanasio et al. 1995, 332.
\textsuperscript{258} \textit{LTUR II} 1995, 301.
\textsuperscript{259} Meneghini 2009, 53.
\textsuperscript{260} Meneghini 2009, 53.
\textsuperscript{261} The archaeological evidence and use of coloured marble in the Forum of Augustus will be examined in greater detail in the following chapter, however a brief outline of the architectural layout and development of the complex is first necessary to contextualize the coloured marble, as well as to adhere to chronological coherence of this chapter.
\textsuperscript{262} Suet. \textit{Aug.} 29.
of the Forum of Augustus and was dedicated in 2 BCE, forty years after the initial vow. During that period, Augustus had become sole ruler of Rome following the Battle of Actium in 31 BCE, which brought an end to the civil wars. At this time, he began to reshape both the political and physical landscapes of Rome. He symbolically returned the power of the state back to the Senate and, as a result of his deeds, he was awarded the title Augustus in 27 BCE. During his reign, with Agrippa as aedile, Augustus began to improve the infrastructure of Rome. He built throughout Rome, restoring and constructing many buildings as a gift to the city and people, making Rome a city worthy of being the seat of an empire; these included the Temple of Apollo on the Palatine, the Temple of the Deified Julius and the Curia. He was responsible for the restoration of the Capitolium and the Theatre of Pompey, he repaired the aqueducts and claimed to have restored eighty two temples. The Augustan building program established a new artistic language for which the peace and the golden era of Rome was communicated. The political and cultural era of Augustan Rome was an evolutionary phase that was reflected in the experimental nature of Augustan art and architecture which combined influences from the Hellenistic East and Roman Italic tradition, as well as pure innovation. Augustus had created a visual narrative throughout his building program to promote his renewal of Rome. The Forum of Augustus was a fluid piece of political propaganda of the Augustan regime, as the complex was a momentous point in Augustan building and culture, consolidating his role as head of the Roman state. According to modern commentators, it was the culmination of both Augustus’ military career, his ancestry, and the cultural and artistic developments he brought to Rome.

According to Augustus’ Res Gestae, as well as Suetonius, Augustus had purchased private lands, ex manubiis, and he had not forced anyone to sell their homes or properties. At the time of the dedication in 2 BCE, Suetonius states that the forum was still incomplete. The complex was hastily dedicated because the Forum Romanum and the Forum of Julius

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263 LTUR II 1995, 289; Ovid Fast. 5.549-550; Dio Cass. 55.10.
265 Zanker 1988, 71; Dio Cass. 49.31. Augustus does not mention Agrippa in the Res Gestae when he credits himself with building in Rome, but Agrippa’s name is still visible on the Pantheon, which remains even after it was rebuilt by Hadrian in the second century CE (CIL VI.896).
266 Aug. Res Gest. 19-20. Augustus may not have begun building the Temple of Mars Ultor and the Forum of Augustus until later in his reign due to the other unfinished building projects. See also Favro 1996, fig. 116.
267 See especially Zanker 1988 for a thorough illustration on the visual language of Augustan art. Virgil Aen. 5.791-792.
Caesar had not provided the necessary additional space for the increased volume of judicial cases.\textsuperscript{271}

The Forum of Augustus (Figure 1) was orientated northeast to southwest and stretched towards the \textit{Subura}, an ancient residential quarter that was situated just beyond the precinct wall. The 33 m high precinct wall, which is still standing today, was built of peperino and gabina stone, materials that were considered to be fireproof, to protect from fires that frequently occurred in the densely populated residential areas.\textsuperscript{272} The Forum of Augustus was at a right angle to the Forum of Julius Caesar and was similar in form, but it was built on a scale one and a half times bigger than that of the Caesarian complex. The overall area of the Forum of Augustus measured 120 x 120 m, including the exedrae.\textsuperscript{273} The main square was more compact than the Forum of Julius Caesar, as it was shorter in length. The southwest end of the forum is still under the Via dei Fori Imperiali, which was built in the 1930s under Mussolini. The northeastern boundary wall was also irregular; at the end of the northwestern portico was a small hall, while the southeastern portico abruptly ends. The open square was paved with slabs of Luna marble and in the center stood a quadriga bearing Augustus, erected by the Senate. Augustus’s \textit{Res Gestae} records that the Senate bestowed on him the title ‘PATER PATRIAE’ (‘Father of my country’), which was inscribed beneath the quadriga in Augustus’ honour.\textsuperscript{274} In 19 CE, Tiberius added two arches celebrating the triumphs of Germanicus and Drusus on the Danube and in Armenia. The arches were placed on either side of the temple and acted as the entrances from the \textit{Subura} residential district into the Forum of Augustus.\textsuperscript{275}

The main square was flanked by porticoes with a highly decorative attic.\textsuperscript{276} Above each column, there was a colossal marble caryatid statue. The caryatids alternated with round shields (\textit{clipei}) made of Luna marble, one of which was adorned with the head of Jupiter Ammon (Figure 29).\textsuperscript{277} Attanasio et al. conducted three different analysis — isotopic analysis, electron paramagnetic resonance spectroscopy and petrography — to determine the provenance of the white marbles fragments found in the Forum of Augustus, specifically the origin of the caryatid statues.\textsuperscript{278} Luna marble was confirmed to be used for many of the caryatids and \textit{clipei}, but an analysis of two other caryatids and a fragment of

\textsuperscript{271} Suet. \textit{Aug.} 29; Neudecker 2010, 174.
\textsuperscript{272} Meneghini 2009, 60; \textit{LTUR II} 1995, 290.
\textsuperscript{273} Meneghini 2009, 60.
\textsuperscript{274} Aug. \textit{Res Gest.} 35.
\textsuperscript{275} \textit{LTUR II} 1995, 292.
\textsuperscript{276} Wilson Jones 2000, 222-224.
\textsuperscript{277} \textit{LTUR II} 1995, 290; Meneghini 2009, 70.
\textsuperscript{278} Attanasio et al. 1995, 333-334.
the *clipei* showed them to be constructed of Pentelic marble.²⁷⁹ Attanasino et al. concluded that Luna marble was alternated with Pentelic in the attic statues. The use of Pentelic marble for the caryatids was a direct copy of those on the Erechtheion in Athens and tightly linked to Periclean Athens and the Graeco-Hellenistic tradition.

The porticoes were raised from the main square by three steps and the interior porticoes were richly decorated with contrasting polychrome marbles used in the pavements and columns, all of which are accounted for in the archaeological record, which is analyzed in Chapter 4 (Figure 30). The porticoes had a gallery of statues of the *summi viri*, great Republican men, which were placed in niches set in the back walls of the porticoes (Figure 31 & Figure 32).²⁸⁰ Towards the northeast end of the porticoes, the interior wall opened up into a large two storey semi-circular exedrae (Figure 35). Excavations between 1998 to 2000 have revealed that a third exedra was attached to the northwestern portico (see Figure 34) however, this was demolished during the construction of the Forum of Trajan.²⁸¹ In keeping with the symmetry of the forum, there was most definitely a fourth exedra attached to the southeastern portico, which was destroyed during the construction of the Forum Transitorium.²⁸² The two exedrae closest to the Temple of Mars Ultor were the larger exedrae measuring 40 m in diameter, while the two exedrae towards the southwestern end of the square were slightly smaller (30 m in diameter).²⁸³ The larger exedrae, which are partially still standing today, was two storeys high and contained niches that held statues (Figure 35 & Figure 36). Some of the statues have been identified in both the ancient written sources and fragmentary epigraphical evidence.²⁸⁴ In the northwest exedrae, the statue of Aeneas was placed prominently in the central niche; the Kings of Alba Longa and members of the Julian family were arranged in the surrounding niches. In the southeast exedrae, Romulus was centrally located, surrounded by great men of Rome’s past. Additionally, there was an accompanying inscription under each statue listing significant achievements of the illustrious figure.²⁸⁵

The exedrae also provided space for judiciary activity, attested to by Suetonius and confirmed by evidence.²⁸⁶ Suetonius records that Claudius was holding court in the forum

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²⁷⁹ Attanasio et al. 1995, 335.
²⁸¹ Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007c, 126.
²⁸² Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007c, 126.
²⁸³ Meneghini 2009, 60.
²⁸⁵ Favro 1996, 126; See also Geiger 2008 (esp. Chapter 5).
²⁸⁶ Suet. *Aug.* 29; *Claud.* 33.
and left the tribunal when he smelled the meal the priests of Mars were preparing for the Salii in the nearby temple. The ‘case of Iusta’, which recorded the summoning of the defendant to the Forum of Augustus in Rome, was preserved in wax tablets from Herculaneum. While passage from Suetonius and the Herculaneum tablets do not explicitly specify the location as being the exedrae, these spaces would have offered a more secluded venue, screened from the busy main square, in which judicial activity could have taken place.

The Room or Hall of the Colossus, a relatively small space measuring 12 x 13m, was located at the end of the northwest portico. The Hall of the Colossus was so designated due to the presence of a colossal statue (10 to 11 m high) placed in the center of the northeast wall. The Hall of the Colossus functioned as a cult space honouring the *Genius* of Augustus, the life spirit of his family. This was represented by the colossal statue before his death (14 CE). In 30 BCE the Senate decreed that the *genius* of Augustus be included in the prayers of the priests and priestesses on behalf of the people and Senate, as well as in the libations of both public and private banquets. Thus, the worship of the *genius* of Augustus became a public cult for all of Rome, further recognizing his position as ‘father of the country’. The statue could not have represented a divine Augustus before 14 CE, as the Senate did not grant him divine honours until after his death. This change in Augustus's status could have led to the Hall of the Colossus becoming a cult space where the divine Augustus was worshiped. The monumental Temple of Mars Ultor, the focus of the complex, was at the center of the northeastern end of the square. The octastyle Corinthian temple had eight columns on each side. It was on a raised podium, 3.55 m high, accessed by a single staircase and had a Luna marble veneer (Figure 37 & Figure 38). The fluted Corinthian columns of the porch were made of Luna marble drums and stood 15 m high; three of them are still erected on the porch, together with their bases and capitals (Figure 39). The overall temple was approximately 30 m high.

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287 Suet. *Claud.* 33.
289 Neudecker 2010, 174; Ungaro 2007d, 179.
290 Meneghini 2009, 71; Ungaro 2007c, 126.
291 Meneghini 2009, 74.
292 Dio Cass. 51.19.7; Hor. *Odes* 4.5.31-38 (the people combine the worship of Augustus with the worship of their household gods); Favro 1996, 123-124.
294 Ungaro 2007c, 126; Meneghini 2009, 61.
The interior of the temple comprised a rectangular hall, with columns lining the lateral walls. At the end of the cella, there was a curved apse raised above the main floor level where the cult statue group stood; this was accessed by steps. The statues, which are now lost, have been identified as Venus, Mars Ultor and the divine Julius Caesar from a relief preserved in the Archaeological Museum of Algiers. They are believed to depict the cult statues inside the temple of Mars Ultor. These divine figures were significant to Augustus, as he was presenting himself as the son of a deity and also claiming divine ancestry as part of his revised version of Roman history (see also Chapter 5). Augustus honoured Mars Ultor for aiding him in avenging Caesar’s death. Mars was both the consort of Venus, the ancestress of Julius Caesar, and the father of Romulus, an ancestor of Augustus.

Furthermore, the Forum of Augustus was intended to be the location of a number of religious and political ceremonies, such for sacrifices to Mars, ceremonies that marked a general’s departure for command abroad. It was also the place where the Senate met to deliberate claims of war and triumph, where victors dedicated their triumphal crowns and military standards, and where men of military age assumed the *toga virilis*, when their names were placed onto military lists in the temple. Thus the Forum of Augustus was an important center for ceremonies surrounding foreign policy and military.

Chapter 4 will conduct a more detailed examination of the substantial evidence that exists for the use of coloured marble in the Forum of Augustus. From the archaeological evidence and reconstruction, it is evident that the coloured marbles were used to communicate low-level meanings, such as the separation of space amongst other cues.

### 3.3 Temple of Peace

In 69 CE, Vespasian was declared Emperor of Rome, founding the new Flavian Dynasty, and began to repair the city after damages from the Neronian fire. Vespasian restored the Temple of Jupiter Optimus Maximus on the Capitoline and the temple of the Divine Claudius and began the construction of the Flavian Amphitheatre. He also commenced construction on his own Imperial complex in 71 CE, *ex manubiis*, after his triumph over Rome.
Judea in the same year.\textsuperscript{301} The Temple of Peace was completed and inaugurated shortly after in 75 CE, more than seventy years since the last Imperial Forum of Augustus was built (Figure 1).\textsuperscript{302} By inaugurating a complex to \textit{Pax}, Vespasian was declaring that peace was brought back to Rome through conquest in which he subdued Rome’s enemies.\textsuperscript{303}

The Temple of Peace is located on the site of the old Republican \textit{Macellum} (market), which was destroyed in the Neronian fire of 64 CE.\textsuperscript{304} The Favian complex was orientated northwest to southeast and was separated from the Forum of Augustus by the Via Argiletum on its northwest side (Figure 40). The Temple of Peace was not integrated with the rest of the Imperial complexes until the construction of the Forum Transitorium in 97 CE (Figure 1). Why Vespasian left a gap between the Julio-Claudian complexes and his own is unclear. The Via Argiletum was a high traffic area, connecting \textit{Subura} and the Forum Romanum, so perhaps Vespasian did not want to encroach on the busy street, forcing him to leave the road between the fora.\textsuperscript{305} Vespasian linked his complex with the Fora of Augustus and Caesar by orientating his complex along the same alignment and resembling them in form, but also showed a unique character to the design.\textsuperscript{306} Although it is considered by many modern scholars as an Imperial Forum, this is still disputed by some who cite the inconsistencies present in the ancient literature.\textsuperscript{307} Contemporary sources, such as Pliny, Suetonius, and Dio Cassius refer to the complex as a \textit{templum} (or \textit{temenos}), indicating the intended sacred nature of the monument.\textsuperscript{308} The complex is referred to as a \textit{forum} in the writings of Procopius and Ammianus Marcellinus after the fourth century.\textsuperscript{309} The history and transformation of the area, as well as the construction of the Forum Transitorium, created a greater physical link between the Temple of Peace and the Imperial Fora which likely was part of the altered notion of the space.

The Temple of Peace was severely damaged by fire in 192 CE, thus much of the preserved structure is from the Severan rebuild that took place in the early third century CE.\textsuperscript{310} Archaeological surveys attempt to determine the extent of the Severan reconstructions and original first century CE features, but this proves to be challenging.\textsuperscript{311}

\textsuperscript{301} Suet. \textit{Vesp.} 9; Dio Cass. 65.15; Coinage from 71 CE commemorates Vespasian’s triumph (\textit{RIC II} Vespasian 49; \textit{RIC II} Vespasian 51).
\textsuperscript{302} Dio Cass. 65.15; \textit{LTUR IV} 2000, 67.
\textsuperscript{303} Josephus \textit{Jewish War}, 7.158-162.
\textsuperscript{304} \textit{LTUR IV} 2000, 67; Del Moro 2007, 170; Anderson 1984, 105.
\textsuperscript{305} Wightman 1997, 64-88.
\textsuperscript{306} Del Moro 2007, 170.
\textsuperscript{307} See Darwall-Smith 1996, 56; 65-66.
\textsuperscript{308} Pliny \textit{NH} 36.102; Suet. \textit{Vesp.} 9; Dio Cass. 65.15.
\textsuperscript{309} Procopius \textit{Hist. Wars} 8.21.11-12; Amm. Marc. 16.10.14.
\textsuperscript{310} Dio Cass. 73.25; Herodian 1.14-2-3.
\textsuperscript{311} Meneghini 2009, 79.
Regardless, recent excavations between 1998 and 2000 have revealed more of the plan and details of the Temple of Peace.

The Temple of Peace was an almost square complex — measuring 110 x 105 m — and was surrounded on three sides by porticoes.\(^{312}\) The northwest wall contained projecting large, unfluted, monolithic columns of *africano* (11.7 m) (Figure 41) with Luna marble capitals and bases supporting a decorative architrave, similar to the pseudo-colonnades of the Forum Transitorium (discussed in the next section of this chapter).\(^{313}\) The discovery of a foundation for a fourth portico along the northwest wall suggests the northwest façade was likely altered by Domitian and replaced with a pseudo-colonnade during the construction of the Forum Transitorium.\(^{314}\) This is further corroborated by the Flavian date of the columns, which is based on evidence of damage and repair to the *africano* columns that was likely caused by the fire in 192 CE.\(^{315}\)

In the central open square, excavations have revealed that the area was left unpaved, with the exception of a 14 m wide Luna pavement on the northwestern edge; this is partially visible in the archaeological site.\(^{316}\) The *Forma Urbis* depicts six elongated structures on either side of the main square, running parallel to the lateral porticoes (Figure 42).\(^{317}\) Their existence was confirmed by excavations for which there is evidence that they were covered by marble and lined with bushes (Figure 43).\(^{318}\) Gutters left by lead pipes were also discovered in the square, led to the possible classification of these structures as fountains (see Figure 44). The description in the ancient sources of the temple of Peace as an outdoor museum and garden, displaying beautiful works of art and the inclusion of plant lined fountains further adds to the perception of a leisurely complex.\(^{319}\)

The porticoes surrounding the square on three sides were to the northeast, southwest and southeast, which also contained the temple façade.\(^{320}\) The porticoes were accessed by steps and were decorated with unfluted, pink Aswan granite columns (8.4 m tall), which are dated to the Severan reconstruction, with capitals and bases of Luna marble; seven of

\(^{312}\) Meneghini 2009, 79. *FUR* 15a-c; 16a (The plan of the Temple of Peace is partially preserved in the Severan *Forma Urbis Romae*).

\(^{313}\) *FUR* 16a; *LTUR IV* 2000, 68; Meneghini 2009, 80.

\(^{314}\) Meneghini 2009, 80.

\(^{315}\) Burrell 2015, 949.

\(^{316}\) Meneghini 2009, 80.

\(^{317}\) *FUR* 15c.

\(^{318}\) Meneghini 2009, 81; *LTUR IV* 2000, 68. See also Macaulay-Lewis 2011, 279-288, for discussion of leisurely walking in the Temple of Peace.

\(^{319}\) Pliny *NH* 34.48; Pliny *NH* 35.102, 35.109, 35.74; Josephus *The Jewish War* 7.158; Del Moro 2007, 174.

\(^{320}\) Meneghini 2009, 80.
these columns were re-erected in on the southwest portico (Figure 43).\textsuperscript{321} It is hypothesized that the original Flavian columns were made of \textit{giallo antico} due to the discovery of fragments along the interior wall of the southwestern portico in the excavations of 1998.\textsuperscript{322} Although the evidence is insufficient at this time, the use of \textit{giallo} antico columns in the porticoes would visually connect the Temple of Peace to the Forum of Augustus, lending more weight to an intentional connection by Vespasian. Furthermore, the porticoes had marble pavements, likely \textit{opus sectile}, however, the evidence is lacking for the marble type, due to spoliation in Late Antiquity.\textsuperscript{323}

The Temple of Peace was not set on a high podium like those of the other Imperial Fora but was incorporated into the southeastern portico, adding to its unique nature. There was a row of six columns in the center that were taller than the rest of the portico that supported the temple pediment (see Figure 44). There was a second row of internal columns of the same height and material to screen the cult chamber.\textsuperscript{324} Numerous fragments of unfluted Aswan granite colossal monolithic columns (15 m in height) have been found in excavations.\textsuperscript{325} Monolithic columns of this size were uncommon in Rome, the first ones appeared under Trajan for his Bath Complex and later in the Temple precinct of the Forum of Trajan (see Chapter 4).\textsuperscript{326} It would be remarkable if this was from the Flavian period, as this would be the first known instance of monolithic columns of this proportion in Rome, but the evidence supports a Severan date. This is based on the \textit{africano} columns of the northwest wall, which show signs of damage and repair, likely caused by the fire of 192 CE, attributing these to the Flavian period.\textsuperscript{327} Comparatively the colossal Aswan columns do not exhibit similar signs, in addition to the Severan date of the Luna capitals and bases.\textsuperscript{328} Thus, the evidence is indicative of the Severan use of 15 m Aswan columns, that also increased the size of the original temple. This is important to the later application of monolithic columns in the third century CE Temple of Peace but does not provide context for the original marble columns (or height) in the complex built by Vespasian.

The cult chamber was located behind the second row of the colossal Aswan columns. The cult statue of \textit{Pax} was placed on a podium that was set against the rear wall of the cult.

\textsuperscript{321} \textit{LTUR IV} 2000, 68.
\textsuperscript{322} Tucci 2017, 254.
\textsuperscript{323} Meneghini 2009, 83.
\textsuperscript{324} Meneghini 2009, 84.
\textsuperscript{325} Meneghini 2009, 83.
\textsuperscript{326} Wilson Jones 2000, 155-161.
\textsuperscript{327} Burrell 2015, 949.
\textsuperscript{328} Burrell 2015, 949.
chamber in an apse, shown in the *Forma Urbis Romae*. The evidence for the cult statue *Pax* is based on numismatic evidence from 75 CE, the year of the inauguration of the complex, depicting *Pax* as a female deity and seated. Recent excavations have also revealed the Severan pavement of the cult chamber in large *opus sectile* with *pavonazzetto, granito del foro*, Aswan granite, and *giallo antico* (Figure 45). There were two additional halls flanking the cult chamber, which are identified as the *Bibliothecae*, or libraries. The northeastern hall still lies under the Via dei Fori Imperiali, while the remains of the southwest hall have been excavated, again dating to the Severan reconstruction. The hall opened to the portico marked by columns and had a marble pavement with slabs of *portasanta* and *pavonazzetto*. The *Forma Urbis* was mounted on the southwestern wall of the hall. The map was originally mounted on the façade of the Church of Santi Cosma e Damiano, where the holes are still preserved (Figure 46).

Pliny, a contemporary of Vespasian, considered the Temple of Peace to be one of the most beautiful buildings in Rome and the world: “Even if we are not to include among our great achievements the Circus Maximus built by Julius Caesar… should we not mention among our truly noble buildings … the Temple of Peace built by his Imperial Majesty the Emperor Vespasian, buildings the most beautiful the world has ever seen.” The author also provides information on the art displayed in the complex, which is confirmed through archaeological finds of statue bases and inscriptions. The author does not describe the original Flavian layout of the complex and unfortunately, the archaeological evidence remains problematic in differentiating Flavian and Severan dating of the layout due to the reconstructions of the third century CE. The complex is unable to provide a full scope of the coloured marble used in the original Flavian complex (although there is evidence to support Flavian use of *africano* columns). Neither is it able to provide the full extent of the influence of the Forum of Augustus had on its construction and decoration and in turn the influence it may have had on the Forum of Trajan. Rather the archaeological evidence seems to be a reflection of third century CE and Severan reconstruction and decorative taste and the later history of the Temple of Peace.

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329 *FUR* 15a; Meneghini 2009, 84; *LTUR IV* 2000, 69.
330 *RIC II* Vespasian 770; 771.
331 Meneghini 2009, 84.
332 Meneghini 2009; Del Moro 2007, 170.
333 *LTUR IV* 2000, 69.
334 *LTUR IV* 2000, 69; Meneghini 2009, fig. 101.
336 Pliny records many of the works displayed in the Temple of Peace (Pliny *NH* 34.48, 35.102, 35.109, 35.74; Del Moro 2007, 175; fig. 242-247.)
3.4 Forum Transitorium

The Forum Transitorium or the Forum of Nerva was the fourth and smallest of the Imperial Fora built (Figure 1). Construction of the forum was started by Domitian in the 90s CE, based on both the ancient sources and the chronology of the dedication of the forum. Domitian quickly began a number of building projects as a part of a project of urban renewal. He restored temples such as the Capitolium; he built temples in the Campus Martius and the Forum Romanum, and the temple of the Deified Vespasian and Titus. He also built the Stadium of Domitian and an Odeon in the Campus Martius, as well as the Domus Flavia on the Palatine. In addition, Domitian began construction in the area of the Imperial Fora in order to transform and monumentalize the Via Argiletum, a busy street which connected the Subura to the Forum Romanum. Prior to the construction of the Forum Transitorium, the Via Argiletum had separated the Forum of Augustus and the Temple of Peace. The Forum Transitorium filled in the narrow space left between the Fora of Julius Caesar and Augustus and the Temple of Peace, architecturally linking the surrounding monuments (Figure 40). If the Forum Transitorium had not been built, and the Via Argiletum had remained, the Temple of Peace would have been an outlier to the rest of the Imperial Fora. Perhaps, then it would have never been considered as a forum but only a templum, as it was referred to in the earlier ancient sources (as mentioned in an earlier section).

The Forum Transitorium was orientated from northeast to southwest. It was accessed from both the northeast and southwest ends. The Porticus Absidata, a horseshoe shaped portico that served as a monumental entryway from the Subura, giving access to both the Forum Transitorium at the northeast end and to the Temple of Peace, was situated directly behind the temple of Minerva at the northeast end of the forum. There were three gateways along the curved wall that served as an entrance to the Forum Romanum on the southwest end of the Forum Transitorium. The name ‘Transitorium’ comes from its transient position, as a monumental passageway.

337 LTUR II 1995, 308; Martial 1.2.7-8; 10.51.11-12; Suet. Dom. 5; Stat. Silv. 4.3.15 (in one line of Statius’ Silvae, he refers to a forum by Domitian.) The Forum Transitorium was dedicated one year into Nerva’s reign (Meneghini 2009, 106).
338 Richardson 1992, 115. See especially Darwall-Smith 1992, Chapter IV on Domitian’s building projects in Rome. Domitian building in Rome had outdone both Vespasian and Titus before him and had spent much of the Imperial treasury (Suet. Dom. 5) (Half of Darwall-Smith’s study of the architecture of Flavian Rome is taken up by Domitian).
340 LTUR II 1995, 308; FUR 16a.
341 Del Moro 2007, 178; Anderson 1984, 136 (fig. 36 – curved wall foundations).
The Forum Transitorium, like its predecessors, contained an open public square dominated by a temple on its far northeast end. The forum, measuring ca. 170 x 45 m, was a narrow rectangle paved in Luna marble, and was slightly curved on its short ends of the two boundary walls.342 In order to make additional room for the Forum Transitorium, alterations to the earlier monuments had to be made in the area of the Via Argiletum. The discovery of a third exedra attached to the northwest portico of the Forum of Augustus, which was destroyed for the construction of the Forum of Trajan, indicates that there was likely a fourth exedra attached to the southeastern portico of the Forum of Augustus (Figure 34 & Figure 40).343 The fourth exedra encroached on the Via Argiletum and was demolished in order to provide additional space for the Forum Transitorium. This still did not provide enough space for covered porticoes, which was a prevailing feature of the other Imperial Fora, and an important element of Vitruvius’ ideal forum.344 Instead the northwest and southeastern walls were lined with free-standing columns supporting projecting entablatures to give a colonnaded effect (Figure 49). This feature had not appeared in buildings like this before and the surviving element has been referred to as the ‘Colonnacce’ since the Renaissance (see Figure 47, Figure 48 & Figure 49).345 From visual examinations made in April 2018, the Corinthian fluted monolithic columns were made of pavonazzetto (10.68 m), although quite weathered from time and pollution, with Luna marble bases and capitals. The entablatures and attic decorations were of the same white marble type.346 The use of pavonazzetto in the Forum Transitorium from which Domitian was able to supply his forum with many large monolithic columns, also coincides with an increase in activity of the Docimium quarries and marks the beginning of dateable quarry inscriptions.347 The walls were also veneered in marble: evidence of the Luna marble veneer in the forum remains (see Figure 47, outlined in red), although there is a lack of evidence for coloured marble.348 Of the original forty-four pavonazzetto columns only two remain standing in the site; these can be closely observed from the modern street.349 The remains of a door, in an irregular position between the two columns, is still visible in the southeast wall of the Forum Transitorium (see Figure 47, marked by an asterisk).350 There may have been a

343 Meneghini 2009, 60.
344 Vitr. On Arch. 5.1.
347 Fant 1989b, 9-10.
349 Meneghini 2009, 102 and fig. 120: this section is part of the colonnades on the southeast wall towards the Temple of Minerva.
350 Meneghini 2009. 102.
larger central entrance to the Temple of Peace, reduced to irregularly spaced opening (perhaps five doors) during the construction of the Forum Transitorium.\textsuperscript{351} The irregularity between the doors and the colonnades may be a result of attempting to adapt previously existing openings with the spacing of the colonnades.\textsuperscript{352} The openings acted as passageways between the Forum Transitorium and the Temple of Peace, which may further added to the meaning of the name ‘Transitorium’.

The temple of Minerva was situated at the center of the northeastern end of the square. It has been possible to carry out modern reconstructions of the temple using a combination of extant remains of the foundations and the podium, still partially visible from the street level, together with drawings of the exterior from the sixteenth century (Figure 50) and the preserved shape of the building found in the fragments of the Forma Urbis Romae.\textsuperscript{353} The hexastyle temple was set on a tall podium with fluted columns — depicted in the antiquarian drawings (Figure 50) as Corinthian capitals — supporting the dedicatory inscription and pediment.\textsuperscript{354} Anderson states that the columns were made of either pavonazzetto or africano and Darwall-Smith suggests that they were pavonazzetto, both citing Ward-Perkins.\textsuperscript{355} It is possible that the columns were made of pavonazzetto, a continuation from the Colonnacce, but africano would have made the temple façade stand out in the square, the dark marble highly contrasting the pavonazzetto; however, there is a lack of evidence for either. The front wall of the cella was set behind the forum square, aligned with the northeast boundary wall, documented in the Forma Urbis. The Forma Urbis depicts the interior cella flanked by columns on the lateral walls and an apse at the end of the hall, presumably where the cult statue was placed.\textsuperscript{356} The lack of evidence for the marble decoration is due to extensive spoliation in the Middle Ages and Renaissance, and under Pope Paul V in 1606 when the temple was destroyed.\textsuperscript{357} The Forum Transitorium was not completed by the end of Domitian’s life and was thus dedicated by Nerva in 97 CE.\textsuperscript{358} Nerva’s name instead adorned the dedicatory inscription of the temple of Minerva,

\begin{thebibliography}{9}
\bibitem{meneghini2009} Meneghini 2009, 102.
\bibitem{meneghini2009} Meneghini 2009, 102-103.
\bibitem{delmoro2007} Del Moro 2007, fig. 252; FUR 16a; LTUR II 1995, 309.
\bibitem{meneghini2009} Meneghini 2009, 102; Del Moro 2007, 180.
\bibitem{darwall-smith1996} Darwall-Smith 1996, 118; Anderson 1984, 132.
\bibitem{meneghini2009} Meneghini 2009, 106; FUR 16a (six columns are noted on the left side of the cella, while only four are on the right, likely a mistake made by the engraver).
\bibitem{delmoro2007} Del Moro 2007, 180; Meneghini 2009 106. Drawings up to the sixteenth century show the temple façade partially standing.
\bibitem{senate1606} The Senate passed domnatio memoriae after Domitian’s death in 96 CE, attempting to erase him from public memory, thus his name was not attached to the forum (Suet. Dom. 23; Dio Cass. 68.1.1, 68.2.2-3).
\end{thebibliography}
which dates to 97-98 CE. The façade of the Temple of Minerva and its dedicatory inscription was still preserved by the seventeenth century, as it is evident in drawings of the period.

Prior to the monumentalization of the space, the Via Argiletum was a high traffic area as it was the primary passage between the Subura and the Forum Romanum. It remained this way even after the construction forum, referred to by the ancient sources as both the Forum of Nerva and the Forum Transitorium, which emphasizes its function as a passageway. The forum also served as a mall for pedestrians, a space reserved for commercial activity. Although this space was still adorned with a magnificent display of marble decorations, due to the limitations of space, the coloured marble was not employed in a similar manner to the Forum of Augustus and the Forum of Trajan.

3.5 Forum of Trajan

The Emperor Trajan was highly regarded as a capable general and great Emperor for which he was awarded the title Optimus Princeps by the Senate. The title appears in the numismatic evidence dating from 104-111 CE and is included in bronze inscriptions found in the excavations of his monumental complex. Trajan engaged in major wars with the Dacians and the Parthians, he also annexed Armenia and Mesopotamia. It was the Dacian Wars, 101-102 and 105-106 CE, that provided Trajan with sufficient funds to finance his monumental forum. The Forum of Trajan was the last in the sequence of monumental fora, but surpassed the complexes of his predecessors in both size and grandeur (Figure 1). The construction of the Forum of Trajan began in 105-106 CE and was substantially completed by its inauguration in 112 CE, the date recorded by the Fasti Ostienses. “The buildings surrounding the Forum, including the Basilica, were substantially completed by AD 112, the year when, according to an inscription found at Ostia, the seaport of imperial

359 Suet. Dom. 15; Dio Cass. 67.1; Meneghini 2009, 106; Jones 1992, 100. Minerva was Domitian’s patron goddess and from whom he claimed divine ancestry.
360 LTUR II 1995, 308; Anderson 1984, fig. 32; CIL VI.953.
361 Suet. Dom. 5; Hist. Aug. Alex. Sev. 28.6,36.2; LTUR II 1995, 308.
362 This section will provide a relatively brief outline of the Forum of Trajan, as well as some description of the decoration. The architectural and ornamental use for coloured marble is discussed and analyzed in greater detail in the next chapter.
363 RIC II Trajan 93,98, 150 (There are countless other coins recording this title); Meneghini 2009, fig. 164.
364 Dio Cass. 69.21-22, 28: Victories over Armenia, Mesopotamia and Parthia. Dio Cassius states that the Senate had granted Trajan the privilege of celebrating as many triumphs as he desired; Beckman 2016, 143.
365 Packer 2001, 4. According to Dio Cassius (69.41.1) Apollodorus of Damascus had most notably constructed a bridge over the Danube during the second Dacian campaign. Procopius (Buildings 4.6.13) a fourth century CE source gives credit to Apollodorus of Damascus, a military engineer who had accompanied Trajan during his Dacian campaigns, for the Forum of Trajan.
Rome at the mouth of the Tiber River, the complex was officially dedicated.\footnote{367} The Column of Trajan, to the northwest of the Basilica Ulpia, was not dedicated until a year later, in 113 CE, along with the reconstructed Temple of Venus Genetrix in the Forum of Julius Caesar.\footnote{368}

The Forum of Trajan was orientated northwest to southeast and stretched towards the Campus Martius between the Quirinal and Capitoline Hills.\footnote{369} The Forum of Trajan lay northwest of the Forum of Augustus and ran parallel to the Forum of Julius Caesar. The entire forum measured ca. 300 m x 185 m, which was only made possible by cutting back part of the slopes of the Quirinal and Capitoline Hills.\footnote{370} The Forum of Trajan was the most architecturally elaborate and was divided into a number of different areas: the southeastern courtyard and entrance, the main square and porticoes, the Basilica Ulpia, the Libraries and Column of Trajan, and the northwest temple precinct.

The forum was accessed by a southeast courtyard, discovered in excavations between 1998 and 2000. The courtyard was surrounded on three sides by porticoes.\footnote{371} This space acted as a passage between the Forum of Augustus and the Forum of Trajan through three openings in the wall between the two fora. There were two smaller side openings which gave access to the lateral porticoes of the colonnaded courtyard and a wide central opening with three steps — discovered in 2006 — into the sunken court area from the northwestern Augustan portico.\footnote{372} The exedra attached to the northwest portico of the Forum of Augustus was destroyed (Figure 34 & Figure 51) to make room for these structures and architecturally connect the Forum of Augustus and the Forum of Trajan. The coloured marble and analysis of the space is further discussed in Chapter 4.

To the northwest of the courtyard, there was a ‘three-segmented’ hall measuring 10 m wide and 90 m in length; this has only been partially excavated (Figure 52).\footnote{373} There is a lack of data for determining the precise function of this room, as both the northwest and southeast ends remain under the street level.\footnote{374} Furthermore, there is no evidence for the marble decorations, except for the impressions left by marble slabs which would have originally paved the hall. Meneghini interprets the impression of the pavements to be

\footnote{367} Packer 2001, 4.
\footnote{368} LTUR II 1995, 348; CIL VI.960 (the date of 113 CE is recorded on the pedestal inscription of the Column of Trajan); Smallwood 1966, 22.54-56 following Degrassi 1947; LTUR II 1995, 307.
\footnote{369} Meneghini 2009, 117; LTUR II 1995, 348.
\footnote{370} LTUR II 1995, 348; Milella 2007, 192; Meneghini 2009, 117; Dio Cass. 68.16.3.
\footnote{371} Meneghini 2009, 138-139; 136.
\footnote{372} Meneghini 2009, 138.
\footnote{373} Meneghini 2009, 134-135.
\footnote{374} Meneghini 2009, 134-135.
compatible with porphyry, to which he proposes that this is possibly the unidentified *Porticus Porphyretica* mentioned by the ancient authors, as part of the Forum of Trajan.\(^{375}\)

The southeast boundary wall of the main square was found to be slightly curved with a straight central section and a monumental colonnaded façade (Figure 52).\(^{376}\) The main square had Luna marble pavements and contained a life-size equestrian statue of Trajan; the remains of its foundations have been located 20 m southeast of the center.\(^{377}\) The square (Figure 53) was defined on its northeast and southwest by lateral porticoes that had two adjoining exedrae. There was a statue of a Dacian prisoner in Luna marble, on the exterior façade of the porticoes above each column holding up the cornice (Figure 54 & Figure 55).\(^{378}\) In between each of these Dacian statues, there were *imagines clipeatae*, a portrait of figure on a round shield. The evidence suggests that these were historical Imperial figures based on the discovery of a bust of Nerva and Agrippina the Younger from an ornamental shield.\(^{379}\) This attic decoration echoed the attic decorations of the Forum of Augustus (Caryatids and shields), inviting a direct comparison between the decoration of the two Imperial Fora. The two lateral porticoes were raised from the main square and contained two exedrae, a duplicate of the Forum of Augustus.\(^{380}\) The foundations of the northeastern exedra and part of the portico, as well as some of the marble pavements, are still visible from the street today near the Markets of Trajan (Figure 56 & Figure 57).

The northwest end of the square was dominated by the façade of the Basilica Ulpia with three projecting porches, and coloured marble monolithic columns. (Figure 58 & Figure 59).\(^{381}\) Similar to the porticoes, but on a larger scale, colossal statues of Dacian prisoners that supported the cornice; their bodies were of *pavonazzetto* with Luna heads and hands (Figure 60 & Figure 61).\(^{382}\) Between the Dacian prisoners were decorative panels

\(^{375}\) *CIL* XV.7191; *Hist. Aug. Prob.* 2; Meneghini 2009, 135; See Barker 2009, fig. 2 and 3 for an example of impressions pavements leave after the marble has been stripped.

\(^{376}\) Meneghini 2009, 127; Milella 2007, 192. Prior to the excavations from 1998 to 2000 in the southeastern section of the Forum of Trajan, the evidence was limited for the architectural structure of the southeastern end. The interpretation of the numismatic evidence limited architectural fragments, and drawings from the sixteenth century, the southeastern wall was thought to have contained a central monumental triumphal archway, which left a gap between the Forum of Augustus and the Forum of Trajan (Packer 1997b, 85-91; *RIC II Trajan* 257).

\(^{377}\) Meneghini 2009, 118; Amm. Marc. 16.10.15-16; Packer 2001, 60.

\(^{378}\) Meneghini 2009, 121.

\(^{379}\) Meneghini 2009, 122-123; Packer 2001, 61 fgs. 55-6; *LTUR II* 1995, 351. All of these sculptures have a Trajanic dating.

\(^{380}\) Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007c, 126.

\(^{381}\) Meneghini 2009, 141; *RIC II Trajan* 246.

\(^{382}\) Meneghini 2009, 141; Attanasio et al. 1995, 335.
depicting captured weapons and spolia; fragments of these panels have been uncovered in excavations.  

The interior of the Basilica had a central area with two apses on the short ends separated by aisles. The basilica was the location for the ceremony of the manumission of slaves and criminal court. Inscribed on a piece of the *Forma Urbis*, depicting the northeastern apse of the basilica is the word ‘LIBERTATIS’ (Figure 88). The Forum of Trajan absorbed the tasks overseen in the *Atrium Libertatis*, which was destroyed in order to make room for the Forum of Trajan.

Beyond the basilica, to the northwest, there were two library buildings, separated by a colonnaded courtyard. The colonnades surrounded a small sunken square on three sides. In the center of the courtyard, stood the Columns of Trajan 40 m high, set atop a 6 m pedestal. Two symmetrical Libraries, housing the imperial archives — edicts of the emperors and praetors and decrees passed by the Senate — lay to the northeast and southwest of the column. The structures of the northwest area were decorated with coloured marble, which is discussed further in Chapter 4.

The Temple of the Deified Trajan and Plotina lay directly northwest of the Column of Trajan and libraries. This is attested to in the ancient sources. The temple, built by Hadrian and inaugurated by 128 CE was probably not completed or perhaps even begun at the time of Trajan’s death. The *Historia Augusta* attests to the fact that a temple was inscribed to Trajan: “He built public buildings in all places and without number, but he inscribed his own name on none of them except the temple of his father Trajan.” The monumental temple was surrounded by a horse-shoe shaped colonnade. This area remains a topic of debate, which will be discussed in the following chapter, as will the use and placement of marble throughout the complex.

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383 Meneghini 2009, 141.
384 *Hist. Aug. Comm.* 2.1 (court of Trajan); Sid. Apol. *Carm.* 2.544-545 (public manumission of slaves); Gell 13.25.2 (hearing court cases from the tribunal); Meneghini 2009, 142; Milella 2007, 196.
386 Cicero (*to Att.* 14.17.7) mentioned that Caesar was to build his forum up to the *Atrium Libertatis*. This is indicative that it was in the area which Trajan built his forum.
391 *FUR* 29; Meneghini 2009, 159; Packer 2003, 110-11.
3.6 Conclusion

When the final complex, the Forum of Trajan, was completed in the early second century BCE, the individual complexes became a unified, cohesive, architectural centerpiece in the city of ancient Rome. Each Emperor built upon the legacy of his predecessor which resulted in a series of complexes that shared common physical form and space. From the archaeological evidence of the Imperial Fora, it is evident that each of these complexes contained lavish coloured marbles; however, the survival of the marble in the archaeological record varies, especially in the Forum of Julius Caesar, the Temple of Peace and the Forum Transitorium. The post-Roman history of the Imperial Fora presents challenges to the reconstruction and analysis of the use of coloured marble in their original setting.

Based on the archaeological evidence available, the broader picture reveals that, from Caesar to Trajan, Luna marble was widely used for the capitals and bases of the columns, as well as for pavements, especially in the open squares. The emperors continued to exploit the local quarries in order to economically and efficiently supply their complexes with white marble. Additionally, all of the coloured marble columns were monolithic, continually imported from the distant quarries of the empire, a characteristic of Roman architecture. Still, problems arise with the Forum of Julius Caesar, the Temple of Peace and the Forum Transitorium in the analysis of both low-level and middle-level meanings communicated through the variations of the coloured marble pavements and columns in a similar manner that can be carried out with the Forum of Augustus and the Forum of Trajan.

From what is revealed in the archaeological evidence, the Forum of Julius Caesar used Luna white marble in the porticoes, with coloured marble restricted to the interior of the Temple of Venus, greatly limiting the examinations of the various levels of meaning. Problems also arise with the evidence of the Temple of Peace, as the majority of it seems to date to the Severan period and there is a lack of evidence for both the pavements of the porticoes and variations in the coloured marble design. Finally, the Forum Transitorium lacks evidence for coloured marble with the exception of the pavonazzetto colonnades.

The remains of the coloured marble decorations in the Forum of Augustus and the Forum of Trajan are much more complete, by comparison, and reveal the application of a similar visual system through architectural use and arrangements the coloured marble. The coloured marbles can be interpreted as communicators for both visual cues and symbolic

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392 Fant 2008, 130.
messages, which is under greater investigation in chapter 4. The evidence of the use of coloured marble in the two fora allows for a greater analysis of the layers of meaning attached to the coloured marbles. The archaeological remains of the coloured marble within the Forum of Augustus and the Forum of Trajan is examined in the next chapter, as are the low-level meanings communicated via the marble display.
Chapter 4

Placement of coloured marble in the Forum of Augustus and the Forum of Trajan: from visual cues, to the definition of spaces, navigational aids, and low-level meaning

Following the brief outline of the historical background and architectural forms of the Forum of Augustus, the Forum of Trajan, and the other Imperial complexes in the preceding chapter, a description of the placement of the marble will now be considered in greater depth. In addition, the functional and visual aesthetics, as well as the low-level meaning behind the architectural usage of the decorative marble, will be further analyzed.

The path of the visitors to the Fora of August and Trajan was manipulated and curated by the architectural layout and construction of the complex. This prompts us to consider how the coloured marble design influenced the movement and behaviour of the visitor. The organization and design of ornamental coloured marble and its placement within the Fora of Augustus and Trajan was carried out in a highly sophisticated and calculated manner. By observing the original architectural arrangement of the marble, it is evident that this was part of a deliberate design to highlight the aesthetic beauty of the marble, while also meticulously defining the everyday separate functionality or purpose of specific areas within both monumental complexes. Imperial architects accomplished this by varying the colour and arrangement of the marble, especially those used in the construction of pavements and columns.

As discussed in the introduction (1.3.3), the concept of low-level or every day meaning in architecture, as identified by Rapoport, can be usefully applied to the application of coloured marble, which is considered to be a “fixed-featured element” (those elements which are rarely, if ever, change) found within the Fora of Augustus and Trajan. The archaeological evidence for the coloured marble of the two complexes has been used to reconstruct the polychrome architectural features. Modern reconstructions carried out by Meneghini, Packer, Ungaro and others, combined with studies of the in-situ archaeological remains, allows researchers to theorize about the low-level meanings communicated by the

393 Macaulay-Lewis 2011, 289.
394 Rapoport 1988, 325.
particular usage of each coloured stones. This, in turn, aids present-day understanding of the levels of function and appeal of the colored marbles within these complexes. At the low-level of meaning, the coloured marbles send ‘nonverbal cues’ to those visiting or experiencing the building; this is similar to the manner in which humans express meaning or emotional states through a combination of visual cues, such as body language, proximity or distance, eye contact and gaze, voice (pitch and rhythm), sounds and gestures, that are, largely, implicitly understood. The nonverbal cues signaled by the coloured marbles allow the visitor to ‘read’ the space and discern its purpose or intention regardless of the visitor’s own pre-existing knowledge. The precise arrangement, height and colour of the marble used for the marble pavements and columns in a particular architectural space, not only served as a navigational aid and means of delineating and defining specific spaces, it also acted as a visual cue, drawing the visitor’s gaze to specific details and design elements. As such, colored marble was not solely employed for its aesthetic and symbolic appeal, but was used as an artistic tool used to manipulate the visitor’s experience of the Forum of Augustus and the Forum of Trajan.

4.1 The ‘visitor’, ‘user’, or ‘viewer’

The ‘user’, ‘visitor’ and ‘viewer’ have been mentioned previously but have not been thus far defined. Literary evidence suggests that the main function for the Fora of Augustus and Trajan is the courts of law. People attending these courts of law would include defendants, plaintiffs, magistrates and judges who preside over the cases, advocates or lawyers, witnesses and on occasion the Emperor. For example, returning to the ‘case of Iusta’, the summoning of the defendant to the Forum of Augustus before the tribunal was preserved in a wax tablet from Herculaneum. The defendant was a widow from Herculaneum called Themis, and the plaintiff, called Iusta, was a young girl, born to a former slave, who’s status was being brought into question by Themis. Nearly fifty witnesses were brought forth in this case many of whom had been friends and neighbors of

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395 Reconstructions based on archaeological evidence of the two fora are presented in publications such as LTUR II 1995, Meneghini 2009, Packer 1997b, 2001, Ungaro 2002, 2007c, 2007d. 
396 Rapoport 1988, 320; Rapoport 1990, 48-49; 104-106. See also n. 67 of this thesis. 
397 Rapoport 1990, 107. Rapoport gives a more exhaustive and general list of potential cues regarding low-level meanings, however, their application of them to certain built environments (and in this case the Imperial Fora of Augustus and Trajan) is selective, as not all of Rapoport’s potential cues are relevant in every context. 
398 Suet. Aug. 29; Claud 33; Neudecker 2010, 162; Hist. Aug Comm. 2.1; Gell. 13.52.2; Meneghini 2009, 142; Milella 2007, 196. 
the widow but who also knew the young girl.\textsuperscript{401} A variety of people were involved in this legal case heard in the forum and is likely to be a frequent scene of people coming to the forum. Additionally, ‘\textit{LIBERTATIS}’ (Figure 88) was inscribed on the apse of the Basilica Ulpia of the \textit{Forma Urbis}, the location for the ceremony of the manumission or freeing of slaves (either those native or foreign to Rome) overseen by the emperor.\textsuperscript{402}

Apart from judicial activity, various other ceremonies and activity took place on occasion in the Forum of Augustus, according to literary sources. This included sacrifices to Mars and ceremonies that marked a general’s departure for command abroad, the temple was designated as the location where the Senate should meet in order to deliberate claims of triumph and war, where victors dedicated their triumphal crowns and military standards, and where men of military age assumed the \textit{toga virilis}.\textsuperscript{403}

Apart from functioning as courts of law, there is very little evidence for the alternative use of the Forum of Trajan. However, the libraries housed the imperial archives, including the edicts of the Emperors and praetors, as well as decrees passed in the Senate.\textsuperscript{404} Therefore the users were likely people with a professional interest and educated members of society – writers, lawyers, philosophers, scholars and senators.\textsuperscript{405}

Additionally, the temples located in the two fora also indicates a religious function with ceremonies and sacrifices no doubt taking place.\textsuperscript{406} Thus the scene in the Forum of Augustus and the Forum of Trajan was likely a lively one, where the visitor could be Roman citizens, magistrates, senators, slaves and even the emperor himself, going about their daily business.

4.2 \textit{Functional design in the marbles of the Forum of Augustus and the communication of low-level meaning}

The Forum of Augustus, dedicated in 2 BCE, was the first complex in Rome to use coloured marble on a lavish scale. It is evident that from its sophisticated design displayed an understanding of the ability of subtle architectural effects to communicate specific visual cues, as well as an awareness of the underlying symbolic meanings; this will be discussed in greater detail in the following chapter. The complex is divided into four major

\textsuperscript{401} Neudecker 2010, 165.
\textsuperscript{402} FUR 29; Hist. Aug. Comm. 2.1; Sid. Apol. Carm. 2.544-545; Gell 13.25.2; Milella 2007, 196.
\textsuperscript{403} Suet. Aug 21; 29; Dio Cass. 55.10; Favro 1996, 126; Neudecker 2010, 172-173.
\textsuperscript{404} Gell. 11.17.1; Hist. Aug. Tacitus 8.1.
\textsuperscript{405} Meneghini 2009, 148; Cassion 2001, 88-89.
components: the open square, the Temple of Mars Ultor, the flanking porticoes (with the Hall of the Colossus in the northwest portico), and the exedrae (Figure 62).\footnote{LTUR II 2000, 290.} Coloured marbles were placed strategically within the interior spaces of the porticoes, exedrae, the Hall of the Colossus, and the cella of the Temple of Mars Ultor in order to define the separate spaces.\footnote{Ungaro 2002, 109.}

Entrance into the Forum of Augustus was permitted in three locations: to the southeast end of the square from the Forum Romanum, and two entrances in the form of triumphal arches on either side of the Temple of Mars Ultor from the Subura residential district.\footnote{LTUR II 2000, 292.}

The entrances on either side of the Temple of Mars Ultor gave access only to pedestrians as is evident by the steep flights of stairs, excluding the possibility of vehicle traffic (Figure 64, route in black and Figure 39). This reduced accessibility and increased control over movement in and out of the Forum of Augustus.\footnote{Newsome 2011b, 293; 307.} Entering from this end, the visitor would experience the stark contrast between the narrow streets of the Subura to the glistening marble complex of the Augustan Forum.\footnote{Favro 1996, 175-176.} The great height of the Temple of Mars Ultor would be amplified by this entrance as the visitor walked directly beside the podium into the open square; even in the archaeological site today, standing in this location, gazing up towards the preserved standing columns immediately strikes a feeling of awe.

The visitor enters the forum square proper approaching from the southeast in the direct of the Forum Romanum. (see Figure 64, for the proposed route of the ‘ideal’ visitor marked in red and the route followed in the following description). This entrance allows the visitor to see the Temple of Mars Ultor and the open square from a sufficient distance than the entrances on the northeast end.\footnote{Favro 1996, 251: the temple of Mars Ultor was one of the few buildings at Rome that could be seen from a sufficient distance and eliminated acute visual distortions by other monuments or buildings.} The visitor, now facing the temple, would have been immediately struck by the looming height of the temple’s exterior (30 m from the base to the top), which was decorated in Luna marble (Figure 63. See also Figure 37, Figure 38 & Figure 39).\footnote{Meneghini 2009, 61; Favro 1996, 153; Ovid Fasti 5.551-3: the god is huge and so is the structure.} Both the temple and the main square were flanked by porticoes featuring Corinthian fluted monolithic columns of yellow \textit{giallo antico} (7 m, see Table 1),

\begin{thebibliography}{9}
\footnotetext[1]{LTUR II 2000, 290.}
\footnotetext[2]{Ungaro 2002, 109.}
\footnotetext[3]{LTUR II 2000, 292.}
\footnotetext[4]{Newsome 2011b, 293; 307.}
\footnotetext[5]{Favro 1996, 175-176.}
\footnotetext[6]{Favro 1996, 251: the temple of Mars Ultor was one of the few buildings at Rome that could be seen from a sufficient distance and eliminated acute visual distortions by other monuments or buildings.}
\footnotetext[7]{Meneghini 2009, 61; Favro 1996, 153; Ovid Fasti 5.551-3: the god is huge and so is the structure.}
\end{thebibliography}
crowned by an attic storey. The comparative heights of the temple and porticoes’ columns demonstrated the hierarchy between the two spaces within the complex (refer to Figure 63), while the use of giallo antico was likely to catch the attention of the observer. Within the spectrum of colours visible to the human eye, yellow is the brightest and therefore most likely to capture the attention of the observer. The back of the retina is covered in light sensitive neurons known as cone cells. There are three coloured cone cells: red, blue and green. Each respond to different wavelengths of light based on hues of colour. When looking at the colour yellow, it is a mix of both green and red cones with high wavelengths of light near their peak sensitivity. In modern society, yellow is chosen in places where caution should be taken as it is easily and quickly seen (i.e. school buses, traffic signs and lights, custodial warning signs). Giallo antico was the only yellow marble known to the Romans and its use suggests that the Romans appreciated and capitalized upon its striking effects. This is cornerstone to Rapoport’s low-level meaning as its striking affect was used as a visual cue in order to draw the eye to the desired location. Indeed, the extensive use of white Luna marble in the architectural ornament of the exterior square was strikingly contrasted by the brilliant yellow, the purpose of which was to draw the eye to columns of the porticoes and provide an enticing glimpse into the polychrome interior decoration of the inner areas.

Access to the porticoes was gained via three giallo antico-veneered steps (refer to Figure 62 & Figure 64); the interior of the porticoes were richly decorated using a variety of coloured marble. Parts of the original pavements of the porticoes are still in situ and based on visual examination made in 2018, were decorated in opus sectile, featuring a square of africano inset in yellow giallo antico and surrounded by intersecting segments of blue-grey bardiglio from Carrara (Figure 30). The back wall of the portico contained statues of the summi viri, great Republican men, which were held in niches that were flanked by fluted giallo antico semi-engaged columns; one of these niches is partially reconstructed in the Museo dei Fori Imperiali (Figure 31 & Figure 32). The back wall of the portico opened into a large, two storey semi-circular exedrae (Figure 65), located towards the northeastern ends of the porticoes (Figure 64). This was separated by squared fluted monolithic cipollino columns; a fragment of one of the monoliths is on display in

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414 Meneghini 2009, Wilson Jones 2000, 222-224: The height of the pavonazzetto column shafts in the Hall of the Colossus, would have been the same height as the porticoes. Bauer (1985) reconstructs the height of the column shafts of the Forum of Augustus’ porticoes as about 7 m tall.

415 Bear et al. 2015, 1,008.

416 Shaya 2013, 84; Zanker 1988, 210-215.

417 Ungaro 2007c, 126; LTUR II 1995, 290.
the Museo dei Fori Imperiali which demonstrates the brilliant green colour (see Figure 33). The point where the portico ends and the exedrae begins is marked by a change in the type and colour of columns used — from semi-engaged *giallo antico* columns to squared *cipollino* columns. This visual cue served to distinguish a new, separate space. The screen of *cipollino* columns gave only a partial view into the exedrae and controlled the foot traffic and movement into the exedrae from the porticoes, especially when public judicial proceedings were taking place.\(^\text{418}\)

The exedrae, a semi-circular hall, had two storeys of fluted monolithic columns that framed fourteen niches along the curved wall (Figure 64 and also Figure 35 & Figure 36). *Cipollino* was used for the first storey, a continuation of the screen of columns, and *giallo antico* was used in the second storey (Figure 66 & Figure 67).\(^\text{419}\) *Giallo antico* was placed at a height to draw attention to and emphasize the vertical development of the exedrae. This influenced how the space was to be “read” and highlighted the monumental nature of the hall. The importance of the exedrae was further underlined by the inclusion of statues, which are classified by Rapoport as “semi-fixed-feature elements” in a built environment, or “furnishing”.\(^\text{420}\) The fixed feature elements (the coloured marble) and the semi-fixed-feature elements (the statues), aid the observer in navigating the spatial hierarchies. Within the exedrae, these two elements work together to underline the great importance of the space. Often, semi-fixed-features have a greater impact on a message being communicated than the architecture alone. Semi-fixed-features found within the exedrae of the Forum of Augustus articulate the idealized history of Rome and the legendary and divine lineage of his family. Ancient sources and fragmentary evidence describe statues of Aeneas and Romulus being centrally placed and surrounded by the *gens Iulia, summi viri*, and the Kings of Alba Longa, together with accompanying inscriptions to describe their various deeds.\(^\text{421}\)

The second storey of the exedrae also featured fluted *africano* columns, placed along the straight wall, which was positioned against the portico roof. An open space between

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419 *LTUR II* 1995, 290.

420 Rapoport 1990, 89; Meneghini 2009, 71; Ovid *Fasti*, 5.563-566. The semi-fixed features also had levels of meaning attached to them. Based on evidence from the *Tabulae Herculanenum* 6 (two men were meeting in the Forum of Augustus in front of the statue of Diana), it is known that the statues were used as rendezvous points (*TH 6*, cited in Neudecker 2010, 166). Attaching a low-level meaning, using the statue as a navigational aid and landmark within the Forum of Augustus. This demonstrates that levels of meaning can be applied to many different aspects of the built environment; although this is beyond the scope of this thesis.

421 Ovid *Fasti*, 5.563-566; Pliny 22.13; Suet. *Aug.* 31; Dio Cass. 56.34.2-3; Meneghini 2009, 71; Shaya 2013, 88-89; Zanker 1988, 210-215. See also Geiger 2008 (esp. Chapter 5).
the africano columns allowed natural light to illuminate the interior of the exedra.\textsuperscript{422} Fragments of these fluted africano columns are strewn across the porticoes and exedrae in the modern archaeological site (see Figure 68). The partially preserved marble pavements of the exedrae were decorated in alternating rectangular slabs of africano and cipollino (Figure 69). The giallo antico and africano columns of the second storey repeated the marbles of the pavements below and created a harmonious balance in the vertical design by framing the cipollino of the first storey.\textsuperscript{423} The deliberately balanced design of these marble elements was only revealed to the visitor when they passed into the exedrae from the porticoes. This is supported by La Rocca and Favro’s assertion that guided movement was a way for the ancients to explore, perceive and experience their surroundings.\textsuperscript{424} In addition, this compliments Newsome’s ideas of routes and destinations within the urban topography, which categorizes human movement and structural elements into movements through or through-route and movements to destinations.\textsuperscript{425} There is an interesting example of this concept within the context of the Forum of Augustus. The exedrae did not contain a through-route to another area, it is classified as a ‘destination’ and the visitor was required to exit the same way they entered. In this way, they were forced to turn around, providing an opportunity to perceive their surroundings from a different viewpoint and allowing them to interact with different design elements on their way out, such as the africano columns above the entrance.

The Hall of the Colossus, located at the end of the northwest portico, a comparably small room with high ceilings, measured 12x13 m (Figure 62 and Figure 64).\textsuperscript{426} The entrance to the room was marked by two fluted pavonazzetto columns (7 m) (Figure 70 & Figure 71), which have been re-erected in their original location.\textsuperscript{427} The pavonazzetto columns emphasized a visual distinction between the spaces and articulated its sacred function to the visitor. The Hall of the Colossus functioned as a cult space honouring the Genius of Augustus, the life spirit of his family, represented by a colossal statue during Augustus’ life.\textsuperscript{428} It was likely to have been elevated to a cult hall of the divine Augustus following his death (refer to Chapter 3).\textsuperscript{429}

\textsuperscript{422} LTUR II 1995, 290.
\textsuperscript{423} Ungaro 2007c, 126.
\textsuperscript{424} La Rocca 2015, 26; Favro 1996, 6.
\textsuperscript{425} Newsome 2011b, 292; Macaulay-Lewis 2011, 275.
\textsuperscript{426} Meneghini 2009, 71; Ungaro 2007c, 126.
\textsuperscript{427} Meneghini 2009, 73; Wilson Jones 2000, 222-224.
\textsuperscript{428} LTUR II 1995, 292; Favro 1996, 124; Neudecker 2010, 170.
\textsuperscript{429} Tac. Ann. 1.10; Levick 2010, 290-291; Neudecker 2010, 170.
The *giallo antico* columns of the porticoes, which contrasted against the *pavonazzetto* of the Hall of the Colossus, were used to visually define the change in space. The marble pavements of the hall were made up of alternating rectangular slabs of *pavonazzetto* and *giallo antico*, embellished by a thin strip of *cipollino* around the perimeter of the room (Figure 72). The marble patterning visually echoed the pavements of the exedrae, unifying the decorations of the two areas (compare Figure 69 & Figure 72). There was a colossal statue (10-11 m) at the center of the northwestern wall on a podium decorated with a *pavonazzetto* veneer (Figure 73). Extant remains and fragmentary evidence reveal the type of marbles used to veneer the walls of the hall. The two lateral walls of the room were separated into three sections by four pilasters made of *pavonazzetto* (Figure 75). In between the pilasters, the lower section of the wall had *giallo antico* revetments (see Figure 76). The rear wall was veneered in Luna marble and painted with various decorative motifs.

*Pavonazzetto* was heavily featured within the decoration of the Hall of the Colossus, however, its application was limited within the overall complex. Outside of the Hall of the Colossus, *pavonazzetto* marble can only be identified in one other place — the cella of the Temple of Mars Ultor. This was a deliberate and impactful design choice which was used to subtly convey an important connection between the two sacred spaces and underscore the symbolic significance of the use of *pavonazzetto*; this will be discussed further in Chapter 5. The cella of the temple of Mars Ultor was an architecturally independent building within the forum complex (Figure 62 & Figure 63). This is further underscored by the fact that it was only accessible through the main square. The interior of the temple, which was decorated in vibrant coloured marble (predominantly *pavonazzetto*), contrasted markedly with the temple’s white exterior. The temple floor was *opus sectile*, comprising rectangular *pavonazzetto* slabs in the center, surrounded by a border of *africano*, enclosed by strips of *pavonazzetto*, with a smaller *giallo antico* square at each corner (Figure 77). Two storeys of *pavonazzetto* columns resting on 2.5 m-tall podiums lined the lateral walls of the cella, with Luna capitals and bases. The *pavonazzetto* of both orders flanking the walls were free standing and each had corresponding pilasters behind them. The curved apse at the end of the cella was raised above the floor level and was accessible by five steps.
with *pavonazzetto* treads and Egyptian alabaster risers. The use of *pavonazzetto* in only two spaces of the complex emphasizes their sacred significance by visually connecting them and underlines the elevated importance of the marble.

The Forum of Augustus transformed the use of coloured marble into a visual system through colour, architectural use, and arrangement. Through the assessment of the marble of the forum certain inferences can be made as to how the visitor may experience the space, as the literary evidence is lacking, and the ways in which the architectural elements and decoration controlled and influenced movement through visual cues. As a result, visitors would be able to easily discern the separation and hierarchy of spaces as well as their functional purpose, as per Rapoport’s definition of low-level meaning.

**4.3 Functional design in the marbles of the Forum of Trajan and the communication of low-level meaning**

The Forum of Trajan, inaugurated in 112/113 CE, was the grandest and most elaborate of the Imperial Fora. The complex bore many similarities to the Forum of Augustus, for example the Forum of Trajan duplicated the original four exedrae of the Forum of Augustus in the exedrae of the porticoes and apses of the Basilica Ulpia (Figure 62 & Figure 78). The organization of space within the Forum of Trajan is also similar, in that the design and arrangement of the marble is used to communicate visual cues and distinguish the form and function of each of the spaces, such as areas of transit, spaces for public activities, as well as the hierarchy of space. The central nave and two apses of the Basilica Ulpia, for example, functioned as spaces for judiciary activity, compared to the aisles which were areas of transit. Marble arrangements and decorative design were additionally central to the unification of the enormous complex, which was built on a much larger scale than any of the other Imperial Fora.

The Forum of Trajan is divided into a number of areas: the southeastern entry and structures, the forum proper (main square and porticoes), the Basilica Ulpia, the Columns of Trajan and Libraries, and the temple precinct (Figure 53). Due to the size of the complex this discussion will approach each area separately.

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437 *LTUR II* 1995, 348; *Fasti Ostiensies* in Smallwood 1966, 22.34-35, 22.54-56 following Degrassi (1947). A date of 113 CE is also recorded on the pedestal inscription of the Columns of Trajan (*CIL* VI.960).
438 Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007c, 126.
439 *FUR* 29 (*ATRIUM LIBERTATIS*, public manumission of slaves); *Hist. Aug. Comm.* 2.1 (court of Trajan); *Sid. Apoll. Carm.* 2.544-545 (public manumission of slaves); Gell 13.25.2 (hearing court cases from the tribunal); Milella 2007, 196.
4.3.1 The monumental square

The only known entrance to the Forum of Trajan, due to lack of archaeological excavations in other areas, is through the Forum of Augustus at the southeastern end of the Forum of Trajan. Here the journey of the visitor begins, through the courtyard and tri-segmented hall and into the forum square; the area of the southeast courtyard will be discussed in further detail later in this chapter.

Upon entering the forum square from the southeast entrance (Figure 53 & Figure 79), the viewer must have been immediately struck by the monumental grandeur of the architecture within the main square. The proximity between the Forum of Augustus and the Forum of Trajan would have no doubt invited direct comparison, particularly given the discovery of the southeastern sunken courtyard, which confirms entry to the Forum of Trajan via the Augustan complex.\(^{440}\) The main square contained lateral porticoes on the northeastern and southwestern sides, while the imposing Basilica Ulpia was located at the northwestern end. *Giallo antico* steps formed the edge of the three sides and were contrasted with the Luna marble pavement\(^{441}\): this created a visual frame of the square, as well as making a visual reference to the square of the Forum of Augustus. The columns of the porticoes were made of monolithic, fluted *pavonazzetto* (7.1 m, see Table 2) with Luna bases and capitals.\(^{442}\) Above each of the columns, colossal Luna marble statues of Dacian prisoners decorated the high attic entablature (Figure 54 & Figure 55).\(^{443}\)

Fluted monolithic *pavonazzetto* columns were also featured in the exterior of the Basilica Ulpia, creating a continual visual frame on three sides of the square (Figure 58). As with the porticoes of the Forum of Trajan, each column in the façade of the Basilica Ulpia held a colossal statue of Dacian prisoner (3 m);\(^{444}\) their bodies were carved from *pavonazzetto* while their heads were of Luna marble (Figure 60 & Figure 61).\(^{445}\) The *pavonazzetto* of the Dacian statues matched those of the columns, further emphasizing the height of the basilica’s façade. Additionally, the three projecting porches of the basilica were fitted with monolithic fluted *giallo antico* columns, fragments of which are still in

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\(^{440}\) Meneghini 2009, 139.
\(^{441}\) Packer 2001, 181.
\(^{442}\) Bianchi and Meneghini 2002, table 6; Meneghini 2009, 121.
\(^{443}\) Meneghini 2009, 121; Packer 2001, 61; LTUR II 1995, 351.
\(^{444}\) Packer 2001, 148. The Dacian prisoners of the Basilica Ulpia (*pavonazzetto*) were of larger proportions compared to those of the porticoes (Luna).
\(^{445}\) Packer 2001, 148; Schneider 2002, 94.
situ (Figure 80. See also Figure 58). The brilliant yellow of the *giallo antico* was set against the muted *pavonazzetto*. The combination of these various elements emphasized the basilica’s façade and was a visual cue drawing the visitor’s gaze upwards. Height was an important element used to distinguish the hierarchy of spaces, thus the relative height of the basilica also highlighted its prominence over the porticoes.

Opposite the Basilica Ulpia, at the southeastern end of the square, there was an equally monumental façade decorated with colossal monolithic columns. Based on fragmentary evidence, uncovered in excavations carried out between 1998 and 2000, it has been determined that this facade contained a total of sixteen columns; eight central monolithic *giallo antico* columns, and four monolithic columns on either side made of *cipollino* and *pavonazzetto*, each column shaft was 11.8 m in height with Luna marble capitals and bases. The central *giallo antico* columns of the grand façade mirrored those of the Basilica Ulpia, creating a monumental visual framework of the square that was balanced on all four sides.

Visitors to the square would have been dazzled by the incredible decorations, and plethora of visual stimuli. According to the writings of Ammianus Marcellinus, during his visit to the Forum of Trajan in 357 CE, Constantius II was stopped in his tracks and overtaken by the forum’s beauty. An appealing view of the Basilica Ulpia was accessible from the southeast end of the square, however, to fully examine the monumental entry, movement to the northwest end was required. One would not be able to take in the entirety of the square without movement to different viewpoints, which was encouraged by the placement of coloured ornaments and the layout of buildings.

### 4.3.2 The Porticoes and Exedrae

The interior of the porticoes and adjoining exedrae (see Figure 1, Figure 53 & Figure 62) were a direct copy of the architectural form of the Forum of Augustus. In the modern archaeological site, only the northeastern portico and exedra is exposed; the southwestern portico is still under the Via dei Fori Imperiali. The polychrome marble decorations of the Trajanic porticoes and exedrae were defined by the continual alternation of *pavonazzetto*

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446 Meneghini 2009, 141. The three projecting porches are also depicted on coins from 112-114 CE (*RIC II Trajan* 246).
447 Meneghini 2009, 131.
448 Amm. Marc. 16.10.15 (After visiting the other impressive monuments in Rome, the baths, the Pantheon, the Flavian amphitheater but when he came to Trajan’s Forum, a construction unique under all the heavens, in our opinion, a marvel even by the common consent of the gods, he stopped in his tracks amazed, his mind running over the huge complex, both indescribable and never rivalled by mortals.)
and *giallo antico* in the marble pavements and columns. The visual complexity was not lost in the use of only two stones, instead they were arranged in variations of *opus sectile*, unique to each of the two spaces, which further articulated their separate function and comparative importance.

Traditionally, the porticoes were both places for meeting and transient spaces (covered walkways). They provide access to the exedrae and, in the case of the Forum of Trajan, the Basilica Ulpia (Figure 79). As a result of its partial preservation, it can be observed that the marble pavements of the porticoes were arranged in a grid-like pattern of large *pavonazzetto* squares, outlined by *giallo antico* borders and small *pavonazzetto* squares at each corner (see Figure 78, Figure 56 & Figure 57).\(^449\) The marble pavement, which is more intricately patterned than the pavements of the transient spaces of the aisles in the Basilica Ulpia (discussed further down), may indicate the dual function of that space, namely as a meeting place or as a transit space that connects to the other halls. There was a wide entrance at the northwestern end of the porticoes that contained a Corinthian fluted *pavonazzetto* column in its center (in line with the columns of the aisle in the basilica).\(^450\) This architectural element was used to communicate visually where the portico ended and provided only hints of the interior decoration of the Basilica Ulpia (see especially Figure 83).

A section of twelve monolithic *giallo antico* (7.1 m) columns interrupting the *pavonazzetto* pilasters of the back wall of the porticoes marked the entrance to the exedra.\(^451\) Similar to the use of *giallo antico* in the façade of the Basilica Ulpia, the *giallo antico* columns visually stood out against the more muted *pavonazzetto*. The first two storeys of the exedrae contained niches flanked by Corinthian fluted pilasters of *pavonazzetto* with Luna capitals and bases (Figure 84).\(^452\) Like the Augustan exedrae, the niches contained statues of notable Roman citizens; two fragmentary colossal statues were discovered in the northwest exedrae during the Fascist period excavations, one statue depicted a man in military guise, likely Trajan, and the other, a citizen dressed in a toga (Figure 85 & Figure 86).\(^453\) Although there is limited evidence, the statues may have been a continuation of the Augustan gallery — dedicatory statues for the *summi viri* of the first

\(^{449}\) Meneghini 2009, 125; Packer 2001, 61.
\(^{450}\) Packer 2001, 61.
\(^{451}\) Meneghini 2009, 121, 125; Bianchi and Meneghini 2002, Table 6.
\(^{453}\) Meneghini 2009, 126; Packer 2001, 63 (this is based from a better-preserved statue of Trajan in the Ny Carlsberg Glyptothek in Copenhagen which closely resembles the fragmentary statue found in the Forum of Trajan).
century CE — since the Trajanic space already took direct influence in its form and system of design from Augustus.\textsuperscript{454} The central niche of the first storey was flanked by unfluted monolithic \textit{granito del foro} columns (7.1 m) with Luna capitals and bases; one of the two columns has been re-erected in the northeastern exedrae of the modern site (Figure 57 & Figure 87).\textsuperscript{455} The centrality of the niche and the use of \textit{granito del foro} for the columns — the only other coloured marble other than \textit{giallo antico} and \textit{pavonazzetto} used in the area for pavements and columns — is a strong visual indicator that underlines the importance of the statue and creates a hierarchy of coloured stones in this space.

The Corinthian fluted pilasters used in the second storey of the exedrae were of \textit{giallo antico}, with Luna capitals and bases; these flanked windows used to illuminate the covered space.\textsuperscript{456} The use of \textit{giallo antico} in the second storey mirrored the Augustan exedrae and conveyed a similar visual effect. This arrangement contrasted the vivid \textit{giallo antico} with the muted \textit{pavonazzetto} of the first storey, drawing attention to the height and ultimately the grandeur of the space.

The marble pavements of the exedrae were \textit{opus sectile}, a grid-like pattern of large \textit{giallo antico} squares, in-laid with alternating \textit{pavonazzetto} squares and circular motifs in the center, outlined by \textit{pavonazzetto} borders and small \textit{giallo antico} squares at each corner; this has been partially preserved in the northeastern exedrae and is repeated in the Basilica Ulpia (see Figure 56 & Figure 57). Based on personal observations made in April 2018, as viewed from the Markets of Trajan, the marble types are still clearly evident, and although they are weathered from time, this combination of coloured marble remains visually striking. The design and pattern of the exedrae pavements was a more complex variation of those found in the porticoes, mirroring the spatial hierarchy and function of the two spaces: the porticoes were walkways or through-routes within the forum, while the exedrae, a destination, may have functioned as the locations for public proceedings and law courts.\textsuperscript{457}

\textsuperscript{454} Geiger 2008, 191-192. Dio Cassius (68.18.2) recorded that Trajan had set up statues to Cornelius Palma, Sosius Senecio and Publius Celsus, although does not give a location.
\textsuperscript{455} Bianchi and Meneghini 2002, table 6.
\textsuperscript{456} Meneghini 2009, 126; \textit{LTUR II} 1995, 352; Packer 2001, 64.
\textsuperscript{457} Meneghini 2009, 117-118 (the destruction of two of the four original exedrae in the Forum of Augustus would have eliminated some space for judicial proceedings, thus these two exedrae may have absorbed the function of the former).
4.3.3 The Basilica Ulpia

The monumental Basilica Ulpia (Figure 53) was the largest basilica built in Rome in the second century CE and formed the northwestern end of the square. The central interior was a large rectangular area with two apses on the short ends; the form is partially preserved on fragments of the *Forma Urbis Romae* (Figure 88).\(^458\) The central area of the basilica is exposed, but the apses still lie below street level. The northeast and southwest area was partially excavated in 1928-1934 and recent excavations have been conducted under the Palazzo Roccagiovine in the northeast end of the basilica.\(^459\) The central area was divided into four side aisles by Corinthian monolithic unfluted *granito del foro* columns (8.8 m) with Luna capitals and bases, some of which are still in situ (Figure 80, Figure 81 & Figure 82).\(^460\) The division of the Basilica Ulpia into three areas (the northeast, southwest apses and central nave) allowed multiple daily activities to take place within the same building. The visual marking of the passage areas using columns and coloured marble pavements aided navigation and guided/influenced the movement of the visitors entering the basilica.

Visitors entered the Basilica Ulpia either directly from the square (Figure 79, route in blue) or through one of the two porticoes (Figure 79, route in red). The *pavonazzetto* and *giallo antico* of the basilica’s exterior columns contrasted the *granito del foro* columns of the building’s interior. Entrance from the porticoes gave an entirely different perspective and different visual cues of the *pavonazzetto* columns that were located in the center of the wide entrance from the inside of the basilica (see Figure 83). The purple veining of the *pavonazzetto* provided a visual contrast to the grey *granito del foro* columns of the aisles, visually communicating the entrance to the porticoes and the southeast buildings to the visitor, perhaps returning from the northwest end of the complex (Figure 79, route marked in black).

The central nave, which was enclosed on four sides by the *granito del foro* columns, also had a second storey of monolithic *cipollino* columns (7.6 m) (Figure 89, Figure 90 & Figure 91).\(^461\) The vibrant green *cipollino* columns of the second storey were a marked contrast to the muted grey colour of the *granito del foro* columns below. This contrast not only emphasized the height of the structure, but also provided a visual cue for navigating the importance of the spaces.\(^462\) The *opus sectile* marble pavement of the nave mirrored

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\(^{458}\) The two apses may be modelled after the original four exedrae plan of the Forum of Augustus.

\(^{459}\) FUR 29; Meneghini 2009, 142, and fig. 181; Packer 2001, 162; Scaroina and La Regina 2014, 167 (fig. 1 shows the area of excavation in the northeast part of the basilica).

\(^{460}\) Meneghini 2009, 139.


\(^{462}\) Meneghini 2009, 145.
that of the exedrae, but was carried out on a larger scale; the alternating square and circular motifs at the centre measured 2x2m and 2.5 m respectively set within a slab of giallo antico and framed by narrow rectangular pavonazzetto borders with small giallo antico squares at each corner (see also Figure 82 & Figure 91). This pavement was also repeated in the northeast and southwest apses on the short ends of the basilica (Figure 53 & Figure 78). “In the nave and apses, the pattern and colors of the pavement restated those of the floors in the [exedrae], although in [the nave and apses], the patterns were on a larger scale”. The larger scale of the opus sectile of the nave and apses helped to implicitly convey the importance of the areas in the relative hierarchy of spaces within the forum.

A small section of the southwest apse was cleared during the Fascist-period excavations, and while they are not extensive they do provide some important evidence for the plan. The excavations carried out in 2001-2004 also provide critical evidence for the visualization of pavements within the area. The two apses of the basilica were also separated from the aisles of the central area by a partition of monolithic unfluted granito del foro columns (8.8 m). These columns were used to establish a boundary for the outer aisle, rather than to indicate a separate space, as would a different coloured marble column. While the evidence is limited for the decoration of the semi-circular walls of the apses, Packer suggests that they may have been decorated in a similar manner to those found in the exedrae, further linking the buildings.

The elevation and marble decoration of the two storeys of the apses is based on fragmentary evidence. The first storey contained fluted monolithic giallo antico semi-engaged columns, a surviving shaft of which was discovered in the southwest apse. The two monolithic columns that framed the central niche may have been granito del foro, recalling the central niches of the exedrae and providing a tie to the columns of the aisles and central nave, as Packer and Milella have suggested. The giallo antico provided a striking visual contrast to the granito del foro of the aisles and the central niche. The second storey may have also contained columns, however, at present there is insufficient material

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463 Scaroina and La Regina 2014, 168.
464 Scaroina and La Regina 2014, 168.
467 Packer 2001, 162.
468 Scaroina and La Regina 2014, 167-168.
469 Meneghini 2009, 146.
471 Packer 2001, 162.
evidence to confirm this, let alone indicate the marble type;\textsuperscript{473} but the use of \textit{cipollino} would have alluded to the second storey of the nave, though, again, there is insufficient evidence to say this was the case (Figure 92). The reconstruction of the columns of the first storey is based on limited evidence, which can only be confirmed by future excavations. It is certain, however, that the \textit{opus sectile} of the apses was a repetition of those in the nave, visually connecting the area and emphasizing their similarity in function and distinction.

The pavements of the aisles, parts of which are well preserved under the Palazzo Roccagiovine, were arranged in rows of alternating rectangular slabs of \textit{giallo antico} and \textit{pavonazzetto} in a brick-like pattern (Figure 93).\textsuperscript{474} A thin continuous band of \textit{africano}, was set in front of the bases of the columns, contrasting the pavements and defining the division of the aisles.\textsuperscript{475} Recent archaeological evidence further indicates that slabs of \textit{granito del foro} were set in the floor between the columns made of the same material.\textsuperscript{476} Together, the \textit{granito del foro} columns and floor slabs created a thick, continuous boundary line, both vertically and horizontally, dividing the aisles, nave, and apses. At the corners, where the aisles met at right angles, were circular pavonazzetto motifs set in \textit{giallo antico}, bordered by narrow rectangular bands of \textit{africano} (Figure 78); recent excavations and trace archeological evidence in 2001-2004 found the impressions left by the marble and determined that \textit{pavonazzetto} was used.\textsuperscript{477} This subtly recalls the pavements of the nave and apses, unifying all the areas through a common visual theme. The aisles were gradual transitional spaces, acting as buffers where visitors could move through to travel between the two apses and the central nave, in. The simple bricklike pattern of the marble pavement communicated this organized role, when compared to the more intricate \textit{opus sectile} of the apses and nave, which were locations of the judicial courts.\textsuperscript{478}

\textbf{4.3.4 The Courtyard of the Column of Trajan and Libraries}

Exiting the Basilica Ulpia on the northwest side, the visitor came to a small courtyard which surrounded the Column of Trajan on three sides (Figure 79).\textsuperscript{479} The courtyard, where the

\textsuperscript{473} Packer 2001, 163.
\textsuperscript{474} Scaroina and La Regina 2014, 168; Meneghini 2009, 142; Packer 2001, 153.
\textsuperscript{475} Meneghini 2009, 142.
\textsuperscript{476} Scaroina and La Regina 2014, n. 9.
\textsuperscript{477} Scaroina and La Regina 2014, 168-169. The impressions left by the marble and very fragmentary archeological evidence, it is more likely that the motives were in fact inlaid in \textit{pavonazzetto}.
\textsuperscript{478} \textit{FUR} 29 (\textit{ATRIUM LIBERTATIS}, public manumission of slaves); Hist. Aug. \textit{Comm.} 2.1 (court of Trajan); Sid. Apol. \textit{Carm.} 2.544-545 (public manumission of slaves); Gell 13.25.2 (hearing court cases from the tribunal); Milella 2007, 196; \textit{LTUR II} 1995, 349.
\textsuperscript{479} Meneghini 2009, 146.
Column of Trajan was placed, was paved with Luna marble and was accessible by a single step from the bordering porticoes.\textsuperscript{480} The columns of the porticoes were made from fluted monolithic \textit{pavonazzetto} (7.2 m) with Luna capitals and bases.\textsuperscript{481} The courtyard reiterated the porticoes of the main square, albeit on a smaller scale; the repetition of colour and design in the choice of marble created a visual balance for visitors as they progressed through the various spaces within the grand complex. The marble pavement of the portico was \textit{opus sectile} of \textit{pavonazzetto} and \textit{giallo antico} arranged in the same bricklike pattern as the aisles of the Basilica Ulpia.\textsuperscript{482} Ultimately, such elements communicated its connection to the aisles of the basilica and the transient function of the porticoes between the Basilica Ulpia to the southeast, the libraries and the temple precinct to the northwest.

As mentioned previously, the monumental Column of Trajan made of Luna marble drums (40 m without the base) was in the center of the courtyard; this still dominates the archaeological site today (Figure 94). The narrow porticoes and courtyard restricted the view of the column, only allowing only a clear view of the base, which had decorative reliefs of weapons and two Victories holding the dedicatory inscription.\textsuperscript{483}

Flanking the courtyard, on the northeast and southwest sides, the visitor would gain access to two symmetrical libraries measuring an area of 29 x 32 m (see Figure 53 and Figure 79).\textsuperscript{484} The southwestern library was completely excavated in the 1930s, while the northeastern library still lies under the street level and partially under the Church of SS. Nome di Maria.\textsuperscript{485} The entrances to the libraries were indicated by two fluted monolithic \textit{giallo antico} columns (7.2 m), another elemental nod to the porticoes and entrance to the exedrae of the southeastern square.\textsuperscript{486} The interior hall contained two storeys with Corinthian fluted monolithic columns of \textit{pavonazzetto} with Luna capitals and bases;\textsuperscript{487} the columns of the first storey were 4.7 m and those of the second storey were slightly smaller at 3.5 m.\textsuperscript{488} The columns framed niches traditionally interpreted as \textit{armaria} (bookcases set into the wall), that would have held scrolls.\textsuperscript{489} The columns of the first storey were raised

\textsuperscript{480} Packer 2001, 72; Milella 2002, 125.
\textsuperscript{481} Bianchi and Meneghini 2002, table 6.
\textsuperscript{482} Packer 2001, 72.
\textsuperscript{483} Packer 2001, 72; Meneghini 2009, 151 and fig. 196; CIL VI.960 (records the dedication of the Column of Trajan in 113 CE).
\textsuperscript{484} Meneghini 2009, 146; \textit{LTUR II} 1995, 353. Based on ancient literary accounts, such as Dio Cassius (68.16.3) and the \textit{Historia Augusta} (Tac. 8.1; Prob. 2.1), modern scholars have identified these halls as libraries.
\textsuperscript{485} Meneghini 2009, 146.
\textsuperscript{486} Bianchi and Meneghini 2002, table 6; Meneghini 2009, 147.
\textsuperscript{487} Meneghini 2009, 147; Packer 2001, 78-79. Columns are also indicated on the \textit{FUR} 29.
\textsuperscript{488} Bianchi and Meneghini 2002, table 6.
\textsuperscript{489} Packer 2001, 79; Meneghini 2009, 147.
on a podium, thus the niches with scrolls were accessed by steps in between the bases of the columns. These were discovered in 1932 and are preserved under the street (Figure 95). The niches of the second storey were reached via a set of external staircases; during the recent excavations these were discovered in the northeast library behind the far northeast wall. On the wall opposite the entrance, the two storeys were interrupted by a two storey central niche for colossal statues. The marble pavements were arranged in rectangular slabs of *granito del foro*, bordered by narrow bands of *giallo antico* (Figure 96). The rather muted colours of the *pavonazzetto* columns and *granito del foro* of the pavement may have visually created a somber atmosphere in the two halls, a reflection of its function. The *giallo antico* accent gave a minor note of vivid colour in the hall, contrasting both the *granito del foro* and *pavonazzetto*.

4.3.5 The temple precinct
Exiting the courtyard of the Column of Trajan the visitor would come to the precinct of the Temple of the Deified Trajan was located on the far northwest side of the Forum of Trajan (Figure 79 and Figure 53). The existence of the temple has been the subject of scholarly debate, but due to overwhelming evidence many in the archaeological community favour the presence of the temple being in the northwest precinct of the Forum of Trajan, which extends under the modern Palazzo Valentini (Figure 97).

The ancient sources attest to the existence of a temple. According to the fourth century CE *Historia Augusta*, a Temple to the Deified Trajan was built by Hadrian, this was the only building where Hadrian inscribed his own name. This was further corroborated in 1695 by the discovery near the southeastern facade of the temple precinct of a dedicatory inscription that recalled a dedication by Hadrian to Divine Trajan and his wife Plotina. Colossal monolithic *granito del foro* columns, 15 m in height, with

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490 Meneghini 2009, 147 and fig. 189.
491 Meneghini 2009, 147, 151 (Meneghini also suggests a viewing area above the colonnade to admire the Column of Trajan; Packer 2001, 78.
492 Meneghini 2009, 147; Packer 2001, 78. Both Meneghini and Packer appropriately suggest a statue of Minerva, the goddess of witness, however, there is no archaeological evidence to support this.
493 Meneghini 2009, 147.
496 Aul Gell. 11.17.1 (refers to the library of Trajan’s temple); Packer 2003, 109. The temple may have been commemorated on Hadrianic coin from 125-128 CE (*RIC II Hadrian* 639), which depicts Hadrian on a rostra addressing citizens in front of a temple, which is interpreted by some scholars as the Temple of the Deified Trajan.
498 *CIL VI* 966=31215; Meneghini 2009, 155; Packer 2003, 109.
corresponding Luna marble capitals, were discovered in 1832 and 1865 during the excavations under the Palazzo Valentini, further attesting to the location of the temple;\textsuperscript{499} one of these colossal fragments lies at the base of the Columns of Trajan (Figure 98). Additionally, \textit{giallo antico} and \textit{pavonazzetto} columns fragments of smaller proportions have been found in the area.\textsuperscript{500} The Temple was surrounded by a horse-shoe shaped colonnade partially depicted in the \textit{Forma Urbis Romae};\textsuperscript{501} the foundations for this colonnade were discovered in 2005.\textsuperscript{502} Traditionally, the Temple of the Divine Trajan has been represented as an octastyle temple, similar to that of the Temple of Mars Ultor in the Forum of Trajan.\textsuperscript{503}

The 1990-2000 excavations by Meneghini failed to recover the temple podium under the Palazzo Valentini, which has led Meneghini to suggest that the northwest side of the forum contained a monumental entrance (\textit{propylaeeum}), a proposition that has divided scholarly opinion.\textsuperscript{504} Despite this interpretation, many scholars still support the existence of the temple based on the overwhelming evidence. Packer still favours the traditional reconstruction of the octastyle temple, similar in form to the Temple of Mars Ultor, in line with the Columns of Trajan.\textsuperscript{505} Claridge, on the other hand, advocates for a hexastyle temple, basing her argument on the size of the site as well as similar forms of temples of the other deified emperors in the city.\textsuperscript{506} In addition, Claridge rather unconventionally places the temple at an angle to the rest of the complex; the podium, she believes, corresponds with the courtyard of the Palazzo Valentini (Figure 97).\textsuperscript{507} Claridge’s interpretation is that the temple was deliberately angled so as to distinguish it from the rest of the complex as Hadrianic, she contends that the angle merely seems perverse due to modern ideas of Roman symmetry, however this is a rather unconvincing argument.\textsuperscript{508} The discovery of seven vaulted rooms in the basement of the Palazzo Valentini has been interpreted by Cavallero et al. as the area under the large podium for the temple, which is in line with the forum; the temple is proposed to be hexastyle.\textsuperscript{509}

\textsuperscript{499} Meneghini 2009, 155; Packer 2003, Table I; Claridge 2007, 55, 59.
\textsuperscript{500} Claridge 2007, 71-72; Packer 2003, 133.
\textsuperscript{501} FUR 29. Perhaps this colonnade is similar to the ‘Colonnace of the Forum Transitorium, due to space.
\textsuperscript{502} Meneghini 2009, 159; Packer 2003, 110-11.
\textsuperscript{503} Packer 2003, 109; Meneghini 2009, 155.
\textsuperscript{504} Meneghini 2009, 155.
\textsuperscript{505} Packer 2003, 122-127.
\textsuperscript{507} Claridge 2007, 71-72; 90-91.
\textsuperscript{508} Claridge 2007, 90-91.
\textsuperscript{509} Cavallero et al. 2011, 54.
The overall layout and style of the temple has yet to be definitively determined; however, a few characteristics can be drawn from the surviving evidence. While there is a lack of evidence for the decoration of the interior of the cella, it must have been decorated with polychrome marbles, in keeping with the interior decoration of the rest of the complex and the Trajanic reconstruction and polychrome decoration of the interior of the Temple of Venus Genetrix, as well as based on fragmentary evidence of *pavonazzetto* and *giallo antico* columns.\textsuperscript{510} These may have been arranged in two stories, perhaps, similar to the cella of the Temple of Venus Genetrix. The arrangement of the stones is hypothetical, but *pavonazzetto* on the first storey and *giallo antico* on the upper storey would echo the columns of the exedrae and the visual cue for drawing the attention to the height; however, this can only be confirmed during future excavations.

The 15 m unfluted colossal *granito del foro* columns must have belonged to the porch of the temple, in accordance with other temples featuring columns of the same height; for example, the Temple of Mars Ultor (although the 15m columns were constructed of Luna drums), the 15 m *cipollino* columns of the Temple of Antonius Pius, and 15 m Aswan granite of the Severan reconstruction of the Temple of Peace all displayed their colossal columns on the porch of the temple.\textsuperscript{511} Columns of such large proportions deserved to be prominently displayed for the public to see. The *granito del foro* of the columns related to those of the basilica’s nave, while the colossal height of the columns communicated to the visitor that this was the most important building in the entire complex. As the visitor travelled through the one end of the forum to the other, the monumentality of the spaces was continuously increasing.

In order to create a visually harmonious design in such an architecturally complex structure, the repetition of marble types, distinguished variations and similarities in the marble pavements created a unification within the complex, but also created subtle visual cues for the definition of space.\textsuperscript{512} Through their movement through contrasting coloured marble columns, the visitor recognized these visual cues as navigational aids, before moving through the columns, into a separate space. These low-level meanings provided a physical guide for movement while the different colours and patterns of marble created additional visual aids in order to curate and manipulate the movement and overall experience of the visitor to the forum. In order to view all of these different elements in the

\textsuperscript{510} Claridge 2007, 71-71; Packer 2003, 133.
\textsuperscript{511} Wilson Jones 2000, 208; Meneghini 2009, 83-84.
\textsuperscript{512} Packer 2001, 180-190.
design the visitor would need to move through the spaces in order to take in the grand scene.

4.4 Between Augustus and Trajan: the marble decorations of the southeastern courtyard, communicating a liminal space

During the ground-breaking excavations of the southeastern section of the Forum of Trajan (see Figure 34, highlighted in blue) led by Meneghini from 1988 to 2000, the columnar façade, the ‘tri-segmented’ hall, and the southeastern colonnaded courtyard were uncovered (Figure 52); this disproved the theory of a triumphal arched entrance. The discovery of the southeastern courtyard in the Forum of Trajan revealed an important and immediate structural link between the Forum of Augustus and the Forum of Trajan (Figure 99 & Figure 52). The courtyard appears to be a gradual passage linking the northwestern portico of the Forum of Augustus to the monumental square of the Forum of Trajan.

The colonnaded courtyard was attached to the northwest portico of the Forum of Augustus by three openings in the wall, which was directly southwest of the existing large exedra (Figure 52 and Figure 79); these openings comprised of a wide central entryway and two smaller flanking entries. Based on the discovery of traces of column bases within the wide entryway, Meneghini proposed that it was framed by columns made of granito del foro based on the discovery of a marble fragment found in the immediate vicinity. This is a plausible hypothesis given that granito del foro was a key ornamental stone used in the Forum of Trajan, especially for the decoration of columns in the Basilica Ulpia and the temple precinct.

The porticoes of the Forum of Augustus used coloured marble to indicate a separation of space; cipollino for the exedrae and pavonazzetto for the Hall of the Colossus, both which contrasted against the giallo antico of the porticoes. Applying Newsome’s ideas of routes and destinations, the exedrae and Hall of the Colossus are classified as ‘destinations’ within the forum due to their limited accessibility. Thus, coloured marble

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513 Before these excavations took place, the evidence for the structure of the southeastern end was based on the discovery of some architectural fragments, drawings from the sixteenth century as well as numismatic evidence, which limited the reconstructions and interpretations. Based on this evidence it was believed that there was a central triumphal arch that acted as the entrance to the forum square, leaving a gap between the Forum of Augustus and the Forum of Trajan. Packer 1997b, 85-91; RIC II Trajan 257; Meneghini 2009, 139 (the ‘tri-segmented’ hall has only partially been excavated).
516 Ungaro 2007c, 126; LTUR II 1995, 290; Meneghini 2009, 73
517 Newsome 2011b, 292.
markers, namely *cipollino* and *pavonazzetto*, define the destination in contrast to the portico, which acted as a through-route. In the early second century CE, with the construction of the Forum of Trajan came the destruction of the minor exedrae and the creation of the entrance colonnade. This colonnade connected the Forum of Augustus and the Forum of Trajan and was marked by *granito del foro* columns, visually marking a place of movement *through*, where visitors were able to pass through the entryway to gain access to the various halls and eventually, to the main square of the Forum of Trajan. This addition would have shifted the meaning of destination, with no through-routes, the coloured marble markers in the porticoes of the Forum of Augustus which stood for a hundred years previous.

Additionally, *granito del foro* was not used in the Augustan Forum though, its use in the entrance to the colonnaded courtyard, from the early second century CE, would visually differentiate and introduce the Forum of Trajan to the visitor, perhaps framing the entirety of the forum complex; *granito del foro* used at the southeast courtyard entrance and at the northwestern end in the temple precinct.

The small open court was paved with Luna marble and had porticoes on three sides with smooth monolithic *cipollino* columns, of which many marble fragments have been found (Figure 100 & Figure 101).\(^\text{518}\) The *cipollino* of the porticoes were a familiar material to both the Forum of Augustus and the Forum of Trajan. Its use in the colonnaded portico between the two fora may have been a deliberate choice by the architect to ensure a seamless transition between the two fora through the ornamental decoration. The *cipollino* of the courtyard repeats the marble columns of the entrance and first storey of the exedrae in the porticoes. The smaller exedra of the Forum of Augustus was destroyed in order to accommodate the colonnaded courtyard and tri-segmented hall.\(^\text{519}\) Based on the composition of the larger exedrae of the Forum of Augustus, the smaller exedrae would have also been screened by a number of columns across the opening in the northwestern portico and contained marble columns across the curved wall framing niches.\(^\text{520}\) While no record or traces of the marble decorations of the smaller exedra survived, it is possible that the smaller exedrae repeated the marble decorations of the larger structures albeit on a smaller scale. This would be in keeping with the arrangement of the colour of the marble columns of the porticoes, namely *giallo antico* and *cipollino* along the interior wall. The architects may have wished to use the same type of marble, *cipollino*, for the columns of

\(^{518}\) Meneghini 2009, 136.

\(^{519}\) Meneghini 2009, 60; Coates-Stephens 2008, 300; Ungaro 2007b, 126.

\(^{520}\) Meneghini 2009, 60; fig. 58; fig. 78.
the courtyard in order not to deviate from the Augustan materials and create a further link it to the exedrae. The discovery that the complexes were architecturally linked is significant because of the manner in which they used colored material to communicate low-level meaning and unify the two areas through design. However, the *cipollino* shafts of the courtyard between measured 7.6 m and were slightly larger than the *cipollino* and *giallo antico* of the porticoes of the Forum of Augustus, which measured ca. 7 m. The use of the same marble creates an explicit and visually immediate connection which draws attention but also emphasizes the difference in height between the Augustan portico and Trajanic courtyard. Perhaps, *cipollino* was chosen to visually connect this space with the Augustan exedra as the colours clearly demonstrated this, but the increase in height was a deliberate choice to subtly communicate and mirror this courtyard to the larger scale in which Trajan’s Forum was built.

The pavement of the porticoes surrounding the courtyard was *opus sectile* with alternating rectangular slabs of *cipollino* and *portasanta*, a greyish-pink stone from Chios in the eastern Aegean (Figure 102). The combination of these colours contrasted with each other. The choice of *portasanta* is interesting as it is the only place this marble type was used in the entire Forum of Trajan, additionally it was not used in the Forum of Augustus. Despite this, *portasanta* was used in many of Augustus’ other building projects, and some slabs are still visible in combination with other stones in the Augustan flooring of the Basilica Aemilia and the Temple of Apollo Sosianus in the Forum Boarium. Furthermore, *portasanta* columns have also been found within the Trajanic reconstruction of the cella of the Temple of Venus Genetrix in the Forum of Julius Caesar. While the use of *portasanta* in the southeastern courtyard may have been an isolated case in the Forum of Trajan, it was used by Trajan in the reconstruction of the Temple of Venus Genetrix which was rededicated in 113 CE along with his own forum. The use of *portasanta* in the Forum of Trajan could have been a subtle communication between the marble decoration in this area and the temple in the Caesarian complex. The southwestern edge of the courtyard, towards the Forum of Julius Caesar, has yet to be excavated as it lies under a public street. Perhaps this courtyard was also connected to another structure to the

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523 Gorski and Packer 2015, 110; Lazzarini 2007, 184 and fig. 5; De Nuccio 2002, 152. *Portasanta* continued to be used in the first century CE, for example in the Temple of Concord (Gorski and Packer 2015, 175, 179), the *Domus Aurea* (Barker 2009, n. 18), the *Domus Flavia* (attested by Stat. Silv. 4.2.28).
524 Meneghini 2009, 150-151.
525 LTUR II 1995, 301.
southwest and acted as a passage to the Forum of Julius Caesar.\textsuperscript{526} The courtyard would have been a junction between all three Imperial Fora which would create a stronger link to the portasanta of the courtyard and the temple of Venus Genetrix. At this time the evidence is insufficient for this connection and only educated speculations can be made until further excavations have taken place. Regardless, the arrangement of the marble in the pavement is reminiscent of the alternating rectangular slabs of two marble types that was present in the Augustan exedrae and the Hall of the Colossus. This continues the trend of the opus sectile arrangement in the spaces attached to the Augustan portico, while visually indicating a subtle difference in the individual marble types.

Visitors to the Forum of Trajan may have had to enter from the Forum of Augustus, which would further the visual connections. The coloured marble were indicators of separate spaces and from the perspective inside the portico of the Forum of Augustus a separate complex.

\subsection{4.5 Conclusion}

The entirety of the coloured marble decoration was not visible from the outset, which in turn encouraged and influenced movement throughout the two complexes (especially the vast Forum of Trajan) in order for the visitor to discover the ornamental systems and design complexity.\textsuperscript{527}

An overview of the entire floor plan of the Forum of Augustus reveals a deliberate delineation of spaces using coloured marble pavements. The repetition of intricate opus sectile found in the porticoes and temple cella, as well as the simplified alternation of the marble in the pavement of the Hall of the Colossus and the exedrae, simultaneously create a distinction as well as commonality in the design of the different spaces. Each separate space was further defined by its coloured marble columns: giallo antico used in the porticoes, cipollino in the exedrae, pavonazzetto in the Hall of the Colossus, and the temple cella.

Within the Forum of Trajan, there was a greater need for navigational aids due to its monumental size and elaborate plan, which was implemented through the calculated design

\footnotesize\textsuperscript{526} In Claridge’s \textit{Archaeological Guide to Rome} (2010, 181), she puts forth this idea of the connection between the courtyard and an unexcavated building towards the Forum of Julius Caesar, based on the dates of dedication. The \textit{Fasti Ostienses} (Smallwood 1966, 22.54-56 following Degrassi 1947) states that Trajan had dedicated the Temple of Venus Genetrix along with something else (according to Claridge, an eight-letter word is missing) in May 113 CE, Claridge hypothesizes that this was referring to the courtyard and whatever structure was attached to it.

\footnotesize\textsuperscript{527} La Rocca 2015, 27.
of coloured marble pavements and columns. The constant repetition of \textit{giallo antico} and \textit{pavonazzetto} in increasingly intricate patterns communicated the importance of a given space and its intended purpose. Coloured marble columns provided further cues, immediately defining separate spaces as well as highlighting important architectural elements. As in the Forum of Augustus, the repetitions of the marbles within the Forum of Trajan unified and created a balance within the complex. Wherever the eye wandered it was met with spectacular marble decorations.

Ancient written sources lack detailed descriptions of the marble used in the two fora, thus modern scholars must rely heavily on archaeological evidence to reconstruct the visual splendor of the fora as experienced by visitors in ancient days. Through Rapoport’s framework of low-level meaning, useful insights into the way the visitors of the forum may have interacted and experienced their surroundings can be deduced. Low-level every day and instrumental meanings communicate such things as a space’s functionality, accessibility, its navigational and visual cues, as well as the influence of movement.\footnote{Rapoport 1988, 325.} Analyzing the arrangement of the coloured marble and recreating potential routes and viewpoints within the complexes allows one to interpret and apply low level meaning to the construction and arrangement, as well as determine how the occupants experienced and navigated these spaces, which were deliberately curated using the marble ornamental decorations. Contrasting colours of marble and various patterns and arrangements were specifically chosen to highlight, differentiate, and guide visitors through the forum. These low-level meanings were instrumental for the visitor to ‘read’ their surroundings, acting as navigational aids and creating a distinction of spaces and spatial hierarchies, and directs modern inquiry into human behaviour and the relationship the ancients had with these complexes.
Chapter 5

Symbolism of the coloured marble of the Forum of Augustus and the Forum of Trajan: an exploration of middle-level meanings

The symbolic message communicated through the coloured marbles of the Forum of Augustus and the Forum of Trajan, was important for conveying certain ideologies set out by the Emperor. This chapter will examine and consider the symbolism of the coloured marble used in the architectural decoration of the complexes and its middle-level meaning, namely the particular ideologies that it intended to communicate, such as identity, status, wealth or power.529

The power of architecture was keenly understood and exploited by great Roman leaders such as Augustus and Trajan, as it was a vehicle for expressing unambiguous messages of power.530 DeMarrias, Castillo and Earle explore the strategies of power and the materialization of ideology across human-culture, as “ideology is as much the material means to communicate and manipulate ideas as it is the ideas themselves.”531 The authors established this model by using evidence from the Thy in Denmark, Mayan and Incan material case studies. They demonstrate that monumental architecture such as pyramids or mounds, ceremonial facilities, large buildings for political activity, was used as a means of communicating on a large scale the power and authority of leaders.532 This type of materialization of power, status and authority is conceptualized in Rapoport’s middle-level meaning which is communicated cross-culturally.533 Not only did these structures require enormous amounts of labor and materials, they also demanded high levels of organization in relation to construction, planning, management, and co-ordination of labour crews and raw materials.534 The Roman Emperors were acutely aware of the way in which architecture could illustrate their power and underline their authority; this is evident in the proliferation of monumental public buildings and monuments in Imperial Rome, such as the Imperial Baths, the Pantheon, the Imperial Fora, the Flavian Amphitheatre, the Circus Maximus to

529 According to architect Amos Rapoport, these are “the latent rather than the instrumental aspects of activities and behavior”. Rapoport, 1989, 325.
530 DeMarrias et al. 1996, 18.
531 DeMarrias et al. 1996, 16.
533 Rapoport 1998, 325.
name but a few. The various fixed-feature architectural elements that made up these monumental structures, such as the coloured marbles used in pavements or facades, also served to send a deliberate, often positive, message from a leader to his subjects. The colour, architectural form (columns and pavements) and size of various fixed-feature elements used in the Fora of Augustus and Trajan, for instance, were deliberately chosen to communicate a particular message, and therefore had specific middle-level meanings regarding to the power, wealth, control, stability, and status of the Emperors Augustus and Trajan. Both Augustus and Trajan used coloured marble in their Imperial Fora in order to promote their programmatic ambitions, as heads of the Imperial state, and to celebrate their political and militaristic achievements. Coloured marble, while often structurally unnecessary — other than in the use of some columns — was used as a symbol of imperial power and control. Its use in the Forum of Augustus and the Forum of Trajan communicated several layers of symbolism: the geographical origin of the marble proffered a physical representation of conquered provinces and reminded the viewers of the Emperor’s successful campaigns; the choice of particular colours of marbles, such as purple pavonazzetto and yellow giallo antico, alluded to royalty; while the use of monolithic columns symbolized the power and wealth of the Emperor. This chapter will specifically explore the various layers of symbolism behind coloured marble used in the Forum of Augustus and the Forum of Trajan and consider how these themes were expressed through the strategic architectural use.

5.1 The ‘marble map’: Geographical symbolism
The judicious use of coloured marble in ancient Roman architecture served a greater purpose beyond aesthetics: it was a physical representation of the expansiveness and wealth of the empire and its ability to sustain long distance trade with its conquered provinces. Geographical symbolism was a by-product of the Late Republican tradition, since conquest and the display of spolia were also symbolic links to the origin of the marble. One of the earliest examples of marble spolia is the use of Greek marble — likely Pentelic — in the construction of the Temple of Jupiter Stator, the first known marble temple in Rome, built around 146 BCE to commemorate the victory of Metellus

See Zanker 2015.
Favro, 1996, 185.
Popkin 2016, 72.
Macedonicus in the Fourth Macedonian War.\textsuperscript{539} The use of Pentelic marble was a significant and recognizable link to the Greek east and Metellus’s military victory abroad.

As evident from the ancient literature, the Romans took great pride in their knowledge of marble types and their classification.\textsuperscript{540} The link between the coloured marble and its geographical origin was often an important element to the ancient discourse of coloured marble. This is an important aspect of the marble nomenclature in the ancient sources from the first century into the fourth century CE. Some of the more common references are, for example: \textit{marmor Numidicum}\textsuperscript{541} (\textit{giallo antico}) from the Numidian province in modern Tunisia; \textit{marmor Carystium}\textsuperscript{542} (\textit{cipollino}), referring to the city of Carystos in Euboea; \textit{marmor Synnadicum}\textsuperscript{543} or \textit{Docimium}\textsuperscript{544} (\textit{pavonazzetto}), which is named after the nearby town of Synnada close to the quarries at Docimium. The ancient authors typically disclose the location of the quarries when discussing the marble (this was observed in Chapter 2 where a detailed discussion of the some of the marble and their origins was carried out).

The Roman audience was able to identify the origin of the marble from its distinct colour or pattern (white marbles were more difficult in this respect).\textsuperscript{545} Propertius, writing in the late first century BCE under Augustus, labels the \textit{giallo antico} columns of the portico of Augustus’ Temple of Apollo on the Palatine as ‘Punic columns’, referencing its North African origin.\textsuperscript{546} In book 36 of his treatise, Pliny the Elder discussed at length the marbles known during his time, prioritizing origin in their nomenclature. Statius similarly refers to the marble used in multi-storey columns of Domitian’s palace by their place of origin: “Here contend the mountains of Libya and the gleaming stone of Ilium, dark Syene too and Chios.”\textsuperscript{547} Libya references the North African \textit{giallo antico} marble, Ilium is a reference to Asia Minor’s \textit{pavonazzetto}, Syene and Chios are an allusion to Aswan pink granite and \textit{portasanta}.\textsuperscript{548} Statius’s allusion to the sources of the marbles not only demonstrates his own knowledge of the topic, but also suggests that it is of sufficient

\textsuperscript{539} Vell. Pat. \textit{Roman History} 1.11.3-5; Popkin 2016, 72; Bernard 2010, 36.
\textsuperscript{540} Bradley 2005, 5. Pliny (\textit{NH} 36.55) remarked that the types and appearances of marble were well known in Rome.
\textsuperscript{541} Pliny \textit{NH} 36.49; Suet. \textit{Caes.} 85; Erim and Reynolds 1970, xxxii.a; Sid. Apoll. 2.149.
\textsuperscript{542} Strabo 9.5.16; Pliny \textit{NH} 36.48; Dio Chrys. \textit{Orat.} 79.2; \textit{Price Edict of Diocletian} (Erim and Reynolds 1970, xxxii.a).
\textsuperscript{543} Strabo 12.9.14; Tibullus \textit{Eleg.} 3.3.13; Pliny \textit{NH} 35.3.
\textsuperscript{545} Bradley 2005, 15-16.
\textsuperscript{546} Prop. 32.1. Punic was an ethnic term for North Africa. See Telmini et al. 2014, 113.
\textsuperscript{547} Statius \textit{Silv.} 4.2.25.
\textsuperscript{548} Packer 2003, 193, \textit{n.} 82.
import to be included in his description of the palace.\textsuperscript{549} Perhaps Statius is also testing his reader’s knowledge of origins of the marble.

Within the Forum of Augustus and the Forum of Trajan, the use of coloured marbles can be translated into a ‘marble map’ of the empire (Figure 10). For example, \textit{cipollino} was a recognizable Greek import, \textit{giallo antico} came from Numidria in North Africa, \textit{africano} and \textit{pavonazzetto} from Asia Minor, and \textit{granito del foro} from the Egyptian desert (although this particular marble is only applicable to the Forum of Trajan) displaying the imperial geography. This marble map of the empire communicated the geographical domain of empire, it’s far reaching dominion over its provinces and its ability to sustain long-distance trade and transportation.\textsuperscript{550} The Romans not only saw the beautiful marble arranged within the Imperial Fora, but they were also witnessing a ‘middle-level’ message regarding the power and control of the Empire over its provinces. Marbles that had been brought to ancient Rome from Greece, Egypt, North Africa, and Asia Minor were used to create geographic symbolism, which conveyed the empire’s success in conquest, its indomitable size, and power. Within this was an important message from the emperor to his people, through which he communicated the peace, prosperity, and stability of the empire he had established for them. Additionally, the importation of these resources on such a lavish and unprecedented scale, afforded the emperor an opportunity to reinforce his own supremacy.\textsuperscript{551}

\section*{5.2 Allusions to conquest}

The geography and politics surrounding marble importation are intrinsically intertwined. The traditional use of marble in the Late Republic was as part of the spolia generals returning to Rome. For example, the exploitation of Greek marble came after Rome’s successful conquest of Greece. The first temples adorned with (white) marble were permanent symbols of the general’s successes and were a part of their triumphal commemorations and display. Examples include the previously mentioned Temple of Jupiter Stator built by Metellus, as well as the Round Temple on the Tiber built by Lucius Mummius in the late second century CE, using Pentelic marble to honour his victory over

\textsuperscript{549} This also demonstrates the low-level meaning, discussed in chapter 4, which communicated visual cues through the placement of coloured marble columns, in order to draw the gaze to the height of the hall in Domitian’s monumental palace.

\textsuperscript{550} Favro 1996, 185; Ward-Perkins 1971, 144; Bradley 2005, 15.

\textsuperscript{551} Wilson Jones 2000, 184.
the Greeks and the Sack of Corinth.\textsuperscript{552} As a spoil of war, Greek marble served as a reminder of conquest and victory of that land.

During the Imperial period, the dynamic of military triumphs and public commemorations shifted and became restricted to members of the Imperial family. The last triumph celebrated by someone outside of the Imperial family was L. Cornelius Balbus in 19 BCE, which was recorded on the \textit{Fasti Triumphales}.\textsuperscript{553} From that point on, the triumph became solely an imperial rite and was allusive of imperial victories. Augustus and Trajan, for example, both celebrated their many triumphs over conquered territories and financed their respective fora in the center of Imperial Rome \textit{ex manubiiis}.\textsuperscript{554} The artistic and architectural language of the Fora of Augustus and Trajan communicated their military triumphs and conquest on different levels. The Forum of Augustus contained more subtle militaristic themes and presented Augustus as leader of an empire, while the Forum of Trajan featured explicit militaristic images and triumphal insignia.\textsuperscript{555}

The Forum of Augustus and the Temple of Mars Ultor were built initially to highlight Augustus’ military successes from his youth, and his role in avenging Caesar and the state. In fact, the construction of the Temple of Mars Ultor was in fulfillment of a vow Augustus made before a battle against the assassins of Julius Caesar.\textsuperscript{556} The complex was also a celebration of his later peaceful victory over the Parthians in 20 BCE.\textsuperscript{557} Augustus presented himself as an exemplary Roman and the legitimate leader of the newfound empire. He used coloured marbles in his building program and reconstruction of Rome, including the Basilica Aemilia, the Temple of Apollo on the Palatine and the Temple of Apollo Sosianus.\textsuperscript{558} However, the Forum of Augustus was an entirely new project dedicated entirely to honouring Augustus’ military achievements and his position in Roman history. The coloured marble, namely \textit{giallo antico}, \textit{cipollino}, \textit{africano}, and \textit{pavonazzetto}, used in the interior spaces of the Forum of Augustus functioned not only as a decoration and symbol of the emperor’s wealth, but also conveyed a particular message about his successful conquests on behalf of and consolidation of the empire. Pliny the Elder

\textsuperscript{552} Vell. Pat. \textit{Compendium of Roman History} I.11.3-5; Popkin 2016, 72; Popkin 2015, 295-296; Bernard 2010, 36.
\textsuperscript{553} \textit{CIL} I.11.37; Popkin 2016, 93.
\textsuperscript{554} These events were recorded by the ancient sources and commemorated on coins. Augustus had celebrated a triple triumph in 29 BCE over Illyrium and Dalmatia, Actium, and Egypt (Aug. \textit{Res Gest.} 21; Suet. \textit{Aug.} 22; \textit{RIC I Augustus} 264). Trajan celebrated two triumphs over Dacia, in 103 CE where he was awarded the title Dacicus and again in 107 CE (Dio Cass. 68.10; Pliny the Younger \textit{Ep.} 8.4.2; \textit{RIC II Trajan} 77; Gell. 13.25.1).
\textsuperscript{555} Packer, 2001.
\textsuperscript{556} Suet. \textit{Aug.} 29.
\textsuperscript{557} Aug. \textit{Res Gest.} 29; Suet. \textit{Aug.} 21; Rose 2005, 22.
\textsuperscript{558} Walker 2000, 64-65; Favro 1995, 183-186; Table 5.
commented that the Forum of Augustus demonstrated that the Romans “[had] vanquished the world”\(^559\). Coloured marble, therefore, became synonymous with the empire’s expansion and represented the availability of resources made possible through Augustan peace.

Augustus claimed victory over the Parthians in 20 BCE, during which he negotiated the return of three military standards lost by Crassus in 53 BCE, Saxa in 40 BCE, and Mark Antony in 36 BCE.\(^560\) Both Augustus and Dio Cassius recorded that the recovered standards were enshrined within the Temple of Mars Ultor.\(^561\) This act implied a glorified military conquest. This was mirrored in artistic and iconographic representations of Augustus found in the abundant numismatic evidence recovered from this period.\(^562\) A number of coins depicting Mars Ultor in military dress holding the recovered standards inside a domed temple with the words “MARTIS VLTORIS” (Figure 103) were created\(^563\) Other coins that depicted Mars with the words “SIGNIS RECEPTIS” (Figure 104)\(^564\), or the image of a subjugated Parthian, kneeling and offering the standards (Figure 105), were also found.\(^565\) Through the use of his image on various media, Augustus was communicating the public message that Mars Ultor was enacting vengeance on the Parthians, thereby attaching militaristic tones to the iconography of the diplomatic victory. The ‘victory’ was also referenced in statues located within the Basilica Aemilia and the Parthian Arch.\(^566\) Additionally, two central figures representing Parthia returning the standards to Rome can be found on the cuirass, or breastplate, of the Prima Porta statue.\(^567\)

As previously mentioned, the ultimate symbolic representation of an imperial military triumph was the display of spolia brought back to the city of Rome. Marble was a powerful symbol of a conquered territory, a visual representation of the empire’s far reaching strength. *Pavonazzetto* marble, although not directly imported from Parthia but nearby Asia Minor (modern Turkey), was used to broadly represent the eastern Roman empire. An early example of this symbolism can be found in the Basilica Aemilia (reconstructed in 14 BCE in the Forum Romanum) where purple *pavonazzetto* was used in

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\(^{559}\) Pliny *NH* 36.101.

\(^{560}\) *Augustus*, *Res Gest.* 29; Dio Cass. 54.15; Rose 2005, 22.

\(^{561}\) *Augustus*, *Res Gest.* 29; Dio Cass. 54.15.

\(^{562}\) Rose 2005, 59, 62-63; Fant 1995, 278; Schneider 1986, 120; For Coins see *RIC I Augustus* 287; 288; 314; 315; 359.

\(^{563}\) Multiple examples include *RIC I Augustus* 28, *RIC I Augustus* 39A, *RIC I Augustus* 41.

\(^{564}\) Multiple examples include *RIC I Augustus* 41, *RIC I Augustus* 58, *RIC I Augustus* 80A.

\(^{565}\) The poet Horace (*Ep.* 1.12.28) remarked that the Parthian King Phraates accepted Augustus’ authority on a bended knee.

\(^{566}\) Schneider 1986, 98-125; Schneider 2002, 92; Dio Cass. 54.8.2-3 (the Senate voted Augustus a triumphal arch); *RIC I Augustus* 359 (16 BCE); *RIC I Augustus* 508 (18-17 BCE). See also Rose 2005, Rich 1998.

\(^{567}\) Rose 2005, 25-26; *fig. 4-5.*
the construction of twenty colossal statues of Parthian prisoners (Figure 106). The statues acted as columns, with one hand raised above their head and the other on their hip, a sign of subjugation (Figure 107). The enslavement of the Parthians was permanently fixed in the building of the forum and were therefore allegorical symbols of the population subjugated by Augustus. The ancient sources often equate the colour purple with the Hellenistic kings and courtiers, who used it to convey royal status. Therefore, pavonazzetto marble was used to emphasize the Parthian’s eastern origin, symbolizing eastern luxury and decadence. The colour also lent a degree of realism to the statues, in particular to their clothing. Fant argued that the use of pavonazzetto in the Forum of Augustus (see also Chapter 3) propagated the narrative of a military conquest over the Parthians, which was underscored by the placement of the Parthian standards within the cella of the Temple of Mars Ultor. According to Suetonius, the Temple of Mars Ultor served as a meeting place for the Senate to deliberate claims of war and triumph. Thus, Augustus purposely created a backdrop that would allude to one of his greatest military achievements and effectively communicate middle-level meanings — power, status, and military prowess — through the associations evoked by symbolic pavonazzetto.

Compared to the nuanced meanings conveyed by the Forum of Augustus, the Forum of Trajan had an explicit theme of conquest and triumph. The coloured marbles used in the Forum of Trajan — giallo antico, pavonazzetto, africano, cipollino and granito del foro — communicate the same basic message, namely the imperial power of Rome and its supremacy over the empire. In the case of the Forum of Trajan, particular emphasis was placed on the narrative of the great Dacian campaigns; one such example is the frieze of the Column of Trajan. Colossal statues of Dacian prisoners were also found in the main square of the forum; these were prominently placed above the columns of the porticoes and on the façade of the Basilica Ulpia. The bodies of the Dacian statues on the façade of the lateral porticoes were made of white Luna marble, while those in the Basilica Ulpia were

568 Schneider 2002, 91 (This was the first known instance of depicting barbarians in coloured marble); Schneider 1986, 115; 160; LTUR I 1993, 167-168. Dio Cassius (54.24) credits Augustus with rebuilding the Basilica Aemilia after a fire.
569 Galinsky 1996, 203. Vitruvius remarked that architects should be familiar with many narratives of history because in their works “they often design many ornaments about which they ought to render an account to inquirers” (On Arch. 1.1.5), similar to the caryatids, the Romans would understand this as an allegorical symbol of Augustus’ conquest.
570 Fant 1995, 278. See also Rich 1998, 73.
571 Suet. Aug. 29.
573 Schneider 1986, 163; Meneghini 2009, 121 (The Dacians stood with their heads bowed and hands together at their waist. This was an act of ‘proud submission’, which the Dacians came to be thankful for).
carved from *pavonazzetto* (Figure 54, Figure 60 & Figure 61). The Dacian statues in the porticoes mirrored the statues of the Parthians in the Augustan Basilica Aemilia. Like the Parthian statues, the Dacian prisoners were dressed in traditional eastern attire with unkempt hair, a detail used to portray a barbaric nature. The purple-coloured *pavonazzetto* statues of the Basilica Ulpia, on the other hand, suggested opulence. The ancient sources often equate the colour purple with oriental luxury of the east, as Hellenistic kings and courtiers used purple as a colour of status (the symbolic meaning of the colour purple will be discussed further in the next section). Fragments of Dacian statues carved from *giallo antico*, Lacedaemonian porphyry from Laconia — although the marble is unsuitable for colossal statues — and purple porphyry from Egypt have been found within Trajan’s forum, however, due to lack of archeological evidence their original location is still uncertain. Their presence would no doubt have added to the spectrum of coloured marble used for the Dacian statues, emphasizing the rich and luxurious nature of the building materials. The Dacians were thus a symbolic display of spolia, a permanent triumphal procession of prisoners in Rome, visually demonstrating Trajan’s seemingly unlimited military power and control over the empire.

The yellow and purple colours of *giallo antico* and *pavonazzetto* respectively are associated with imperial victories. The ceremonial toga worn by a successful general during his triumph is described by the ancient sources as a distinctive purple garment with golden embroidery. Additionally, the ancient sources stress the colours purple and gold during accounts of the triumphal ceremony and the image of the general, thus associating these two colours with the concept of triumph. *Pavonazzetto* was used with *giallo antico* in both the Hall of the Colossus and in the cella of the Temple of Mars Ultor of the Forum of Augustus. In the Forum of Trajan, *pavonazzetto* and *giallo antico* were juxtaposed in nearly every space (as discussed in Chapter 4). The combination of these two coloured marbles may have been a deliberate attempt to recall the colours worn by the triumphant

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576 Schneider 1986, 163; Packer 2001, fig. 59, fig. 143.
577 Schneider 2002, 94-95; Waelkens 1985, 648; 650-651.
578 Lacedemonian porphyry, Purple porphyry, *giallo antico* and *pavonazzetto* are listed as the most expensive marbles in the *Price Edict of Diocletian* (Erim and Reynolds 1970, xxxii.a).
579 Schneider 2002, 96; Schneider 1986, 164.
580 Claridge 2007, 74; Schneider 2002.
581 Polybius 6.53.7 (during the funeral for illustrious Roman men, he was dressed in whole purple if he was a censor and embroidered in gold if he had celebrated a triumph); Dion. Hal. 3.63.3; Plut. *Aem.* 34.6 (Aemilius Paulus, during his triumph, was dressed in a purple robe interwoven with gold, and holding forth in his right hand a spray of laurel); Livy 30.11 (the costume of the triumphant general was offered to Massinissa, the King of Numidia).
582 Ovid *Ars.* 1.214; Plut. *Aem.* 34.6; Livy 45.39; 45.40; Beard 2007, 227-228.
general. After 19 BCE, only members of the Imperial family held triumphs; from that time onwards, triumphal ritual displays and commemorations were monopolized by the imperial family. As a result, the ceremonial toga was only worn by members of the Imperial family and therefore came to be symbolic of Imperial power. Augustus and especially Trajan dressed their complexes in a similar manner, in the colours reserved for the triumphator and expressed their status as a triumphant general.

5.3 Royal symbolism of pavonazzetto and giallo antico

The association of pavonazzetto and giallo antico with the colours of triumph has already been established. However, the provenance of these two marbles also suggested particular levels of luxury, prestige and royal associations, further elevating their symbolism within the Forum of Augustus and the Forum of Trajan.

From the Roman Republic and into the Imperial period, the colour purple — particularly when used for garments — was used as a marker of economic status and rank. This connection was not exclusively a Roman idea, but was part of a long-standing tradition adopted from the royal courts of the Near East, Greece and the Hellenistic kingdoms. The choice of colour, in particular, became an important statement of status under Alexander the Great and the Hellenistic kings, who adopted purple costumes from the Persian court. The colour was not restricted to royalty, it was also worn by elite courtiers and high officials, as well as those wealthy enough to afford the expensive dye.

The colour purple was a symbol of status for the Romans and contained regal associations and distinction. The antiquarian writings of Dionysus of Halicarnassus (ca. 7 BCE) indicate that the use of purple garments in Rome can be traced to the time of Romulus, when the leader was clad in a purple robe and crown of laurel, and riding in a chariot during a triumphal procession. Pliny also traces the history of the use of purple at Rome to Romulus, but states that it was only used for his cloak. Both Dionysus and

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583 Popkin 2017, 93.
584 CIL 1.II.37 (Cornelius Balbus was the final name inscribed on the Fasti Triumphales listing every triumphator from the founding of Rome, beginning with Romulus, to the Augustan period); Popkin 2016, 93-94.
585 See Reinhold 1970, 7-36 for further discussion of purple as a status symbol in the Near East, Greece and the Hellenistic kingdoms.
586 Reinhold 1970, 30-32; Plut. Alex. 16.19 (Plutarch tells of Alexander taking purple garments from the Persians as spolia).
587 Gage 2009. 25.
588 Dion. Hal. 2.34.2; Reinhold 1970, 39.
589 Pliny NH 9.37
Pliny justify Romulus’ use of purple in official capacities. On several other occasions, Dionysus describes gold and purple garments, part of the insignia of royalty, and associates purple and gold embroidered garments with the Lydian and Persian kings, connecting the colours to the Hellenistic courts of the east.⁵⁹⁰

As well as being a symbolic display of eastern luxury for the Romans, the use of the colour purple was also symbolic of the decadence related to the Hellenistic royal courts.⁵⁹¹ As the political system in the Late Republic became increasingly fragile, anti-oriental and luxuria propaganda began to set in, and the use of purple outside of ritualized political contexts led to the suspicion of autocratic ambitions.⁵⁹² There are numerous references in the ancient sources that illustrate this: Tiberius Gracchus was presented with a royal diadem and purple robe by the Pergamene envoy who believed Gracchus was going to be king; Pompey, unbelievably, wore the cloak of the Hellenistic king Alexander the Great during his triumph; in his oration speech in the 70s BCE Cicero continually criticizes Verres ‘abuse of purple’.⁵⁹³ Cicero also depicts Caesar displaying the trappings of monarchy, ‘sitting at the Rostra, wearing his purple toga, on his golden chair, a garland on his head.’⁵⁹⁴ The image of a purple robe represents Caesar’s ambitions, revealing his tyrannical nature and desire to overthrow the Republic. These ancient authors seem to equate the excessive use or ‘abuse’ of the colour purple — and its subliminal association with an autocratic, Emperor status — as a threat to the fragile Republican political system.⁵⁹⁵

Similarly, the colour and provenance of giallo antico held royal symbolism. The colour of the marble was reminiscent of gold, an indicator of economic status, wealth and luxury.⁵⁹⁶ In addition, according to the ancient sources, gold was often a part of the insignia of royalty. Writing in the time of Augustus, Dionysus of Halicarnassus describes the

⁵⁹⁰ Dion. Hal. 19.12.66 (describes the King Pyrrhus of Epirus’ battle cloak as ‘purple-dyed and shot with gold’); 3.61.1 (Ambassadors brought to the King Tarquinius the insignia of sovereignty with which they used to decorate their own kings. These were a crown of gold, an ivory throne, a scepter with an eagle perched on its head, a purple tunic decorated with gold, and an embroidered purple robe like those the kings of Lydia and Persia used to wear).
⁵⁹¹ Bradley 2009, 198; Reinhold 1970, 7-36. There were rules concerning the use of purple and clothing; small amounts of purple were used to distinguish the rank and political character of state officials, which was revealed by the width of purple stripes on the edges of their white tunics and togas. This was a controlled use of purple (See Edmonson 2008, esp. 45-47).
⁵⁹³ Plut. Tib. Gracc. 14; App. Roman History 12.117; Cic. Verr. 2.2.72.176; 2.4.26.58-59; 2.5.31; 2.5.86; 2.5.137; Lucr. 2.50-52; 2.500-504; 5.1424-1429 (anti-eastern attitude towards purple [and gold] as symbols of ambition for power and wealth); Cic. Cat. 1.2.5; Cic Phil. 2.67; Lucan Civil War 7.227-228 (those with Pompey, kings and might powers, all wearers of purple); Reinhold 1970, 42-45; Bradley 2009, 198-199.
⁵⁹⁴ Cic. Phil. 2.34.85.
⁵⁹⁵ Bradley 2009, 200-201; Reinhold 1970, 49 (Augustus did not use purple on a grand scale, in keeping with the Romanitas, and due to the political climate as it was still symbolically charged with royal associations).
⁵⁹⁶ Lightfoot 2016, 79: this is evident in the archaeology of jewelry and Hellenistic royal portraiture on coins.
insignia of royalty offered to Tarquinius as being a crown of gold and purple garments embroidered with gold; in another instance he describes the King Pyrrhus of Epirus’ battle cloak as ‘purple-dyed and shot with gold’. Livy, writing around the same time, records the gifts presented to Massinissa by the Senate: these included purple robes and a golden crown, gifts that were considered appropriate status symbols for a king.\footnote{Dion. Hal. 19.12.66; 3.61.1; Polybius 6.53.7; Livy 30.15; 31.11 (Massinissa was given the accoutrements of a triumphal general).} The apparel of a triumphant general was described by some ancient sources as ‘a distinctive purple garment with golden embroidery’\footnote{Polybius 6.53.7 (during the funeral for illustrious Roman men, he was dressed in whole purple if he was a censor and embroidered in gold if he had celebrated a triumph); Dion. Hal. 3.63.3; Plut. Aem. 34.6 (Aemilius Paulus, during his triumph, was dressed in a purple robe interwoven with gold, and holding forth in his right hand a spray of laurel); Livy 30.11 (the costume of the triumphant general was offered to Massinissa, the King of Numidia).}. The general was awarded an elevated status during his triumph, in recognition of his power and contribution to the Roman state; in essence, he was a ‘king for the day’. The costume was reserved only for the triumph, however, and wearing the garb at any other time was considered to be offensive and an abuse of power.\footnote{Räkob 1979, 120-233; Pensabene 2002, 4; Gnoli 1988, 166-168. See also Chapter 2.}

Prior to their exploitation by the Romans, the \textit{giallo antico} quarries were associated with the local kings of Numidia, who discovered them during the late second century BCE. The distinctive golden-yellow marble was used in the construction of the royal shrine of Massinissa ca. 138 BCE.\footnote{Räkob 1979, fig. 31-42; Räkob 1993, Plate 6; Röder 1988, 91; Kittmer 2013, 235.} The architectural fragments from the Numidian altar, which symbolized Massinissa’s victory and the foundation of the Numidian kingdom, displayed Hellenistic style arms reliefs in a pale yellow \textit{giallo antico}.\footnote{Röder 1993, 21.} Due to the extensive quarrying of the marble through the centuries, especially in the second century CE, the evidence for early Roman production is scarce.\footnote{Räkob 1979, 62; Hirt 2010, 91, \textit{n}. 207. Julius Caesar annexed North Africa after the Battle of Thapsus in 46 BCE.} The existence of a sanctuary on the Tempelberg peak of the quarries is the earliest piece of evidence that implies initial ownership by the Numidian kings before becoming Roman property following the expansion of the African province by Julius Caesar (46 BCE).\footnote{Räkob 1979, 1993, 62; Hirt 2010, 91, \textit{n}. 207. Julius Caesar annexed North Africa after the Battle of Thapsus in 46 BCE.} The historical origin and connection of \textit{giallo antico} to the Numidian royals increased the prestige and status of the marble, and subsequently served Augustus and Trajan’s imperialistic purposes. Furthermore, \textit{giallo antico} was the only yellow decorative marble known to the Romans.

The use of \textit{pavonazzetto} and \textit{giallo antico} together was, therefore, charged with symbolic meaning. The ancient sources demonstrate that there was an established connection between the colour purple and royalty, so it is unsurprising that Augustus and
Trajan would have used these marbles to infer prestige, or, indeed royal status, in their complexes. In the Augustan era, *pavonazzetto* was the only purple marble available to Rome; it was introduced to the city during his early reign. He prominently paired *pavonazzetto* and *giallo antico* in the Hall of the Colossus, where the Genius of Augustus was worshiped, subtly linking himself to royalty. Even more significant is the fact that Augustus’s lineage was presented in the statues of the exedra. This included Aeneas and the Kings of Alba Longa, along with the Julian family, Romulus, and the Kings of Rome. Aeneas and the Kings of Alba Longa with the Julian family, juxtaposed on the other side with Romulus and the Kings of Rome. The statues were designed to evoke Virgil’s narrative of Roman history, which created a common ancestry between Aeneas, Romulus and Augustus. Thus Augustus was both of noble lineage and the rightful inheritor of Rome; he symbolically communicated this message through the use of *pavonazzetto* and *giallo antico*, enhancing the symbolism of sovereignty.

*Pavonazzetto* and *giallo antico* were used on a grand scale throughout the Forum of Trajan complex; they were used together in marble pavements and in contrast with each other for monolithic columns (as discussed in Chapter 4). By the time Trajan was in power, the supply of *giallo antico* and *pavonazzetto* had improved and greatly increased; this is corroborated by evidence in the quarries suggesting intense quarrying at the end of the first century CE. Trajan was able to command the necessary quantity and quality of *pavonazzetto* and *giallo antico* to cover his forum in the colours and marbles synonymous with royalty. By this time the quarries of Imperial purple porphyry were also being exploited at Mons Porphyrites (Gebel Dokhan) in the eastern Egyptian desert. The Mons Porphyrites quarry became the quintessential marble supplier to the Emperors, especially in the late third and fourth century CE. Although due to smaller natural fracture spacing in the porphyry bedrock, the quarries could only supply a variety of smaller ornaments,

603 See especially n. 53.
604 Fant 1989a, 7; Tibullus *Eleg.* 3.3.13-14; Strabo 12.8.14.
606 Zanker 1989, 210-211; Favro 1996, 126; 230; Ovid *Fasti*, 5.563-566; Pliny 22.13; Suet. *Aug.* 31; Dio Cass. 56.34.2-3
607 Virgil *Aen.* 5.760-795; Favro 1996, 230; Zanker 1989, 193-195; 211. Augustus created a revised version of Roman history combining two myth cycles into one and claiming both divine ancestry through Venus and Mars, and connections to legendary figures of Rome such as Aeneas and Romulus. Augustus was both the ancestor of Romulus and the equivalent, as he was founding a new Rome.
608 Röder 1988, 93; Röder 1993, 18; Fant 1989b, 9-10.
609 Klemm and Klemm 2001, 635; Lazzarini 2002, 234 (the earliest known date of quarrying, however, is not until 18 CE. There is no evidence on the Roman quarry side that predates the Leugas inscription dated to 18 CE, which accounts for the discovery of purple porphyry and is consistent with other early finds. For the earliest archaeological evidence in Rome see, *LTUR II* 1995, 200, Lazzarini 2007, 48 and Maxfield and Peacock 2007, 417).
unlike those of Docimium and Simitthus where large monolithic columns could be quarried.\textsuperscript{610} The purple of the \textit{pavonazzetto}, together with the \textit{giallo antico}, draws parallels between the Fora of Trajan and Augustus, although on a much larger scale. Trajan physically linked his succession and right to rule by creating parallels between his forum and that of his predecessor, while also surpassing it in terms of grandeur, decadence and exploitation of coloured marbles.

5.4 Monolithic power

Large monolithic columns of coloured marble were one of the many marvels of Roman architecture and engineering. The task of moving and erecting monoliths from quarries in far off regions of the empire posed a major challenge in ancient times. The Roman people were not ignorant of the logistical complexity involved in supplying the Imperial construction sites with monolithic columns. As reported by Pliny, Cicero echoed this sentiment when he remarked that he would have been more impressed if the people of Chios, in the eastern Aegean, were to make their walls from travertine, rather than from their local marble \textit{portasanta}.\textsuperscript{611} Marble was a prestigious material, but travertine, a local material of Rome, would have been a luxury commodity for the Chians and thus Cicero adds weight to the impressiveness of transporting foreign materials. Monolithic columns of larger proportions (over 8.8 m) were even more difficult to extract and transport due to their sheer mass, the size of the marble and the risk of damage while in transit. The geology of the marbles was also an important factor in determining the suitability for monoliths of larger proportions. For example, Lacedaemonian porphyry and purple porphyry were both ill-suited for large monolithic columns, due to limitations of the geology and the nature of the bedrock.\textsuperscript{612}

The cost of quarrying and transporting such monolithic columns was immense and represented a large portion of the overall cost for individual building complexes; this further underlined the degree of imperial munificence, power and control a leader had over the marble sources.\textsuperscript{613} For example, DeLaine estimates that during the construction of the Baths of Caracalla (early third century CE) transportation of materials was fifty per cent of the overall cost, and the marble took up eighty per cent of the cost of decoration (or fifteen

\textsuperscript{611} Pliny \textit{NH} 36.46.
\textsuperscript{612} Zezza and Lazzarini 2002, 259; Pliny \textit{NH} 36.55; Paus. 3.21.4; Peacock and Maxfield 2001, 32-35; Harrell 2009, 29-30.
\textsuperscript{613} Russell 2013, 95.
percent of the overall cost).\textsuperscript{614} Meanwhile, an analysis by Pensabene and Domingo Magaña of the cargo found in shipwrecks allows for the calculation of the carrying capacity of ships transporting marble. They calculated the capacity to be, on average, between two and three hundred tons. The ships, which were normally thirty to forty metres long and fourteen metres wide would, therefore not be able to carry more than two 15 m columns (and no more than four columns measuring 11.8 m, such as those used in the Forum of Trajan).\textsuperscript{615} Given that sixteen columns of 11.8 m were used in the southeastern entrance — eight of \textit{giallo antico}, four of \textit{cipollino} and four of \textit{pavonazzetto} — and over 10 columns of 15 m of \textit{granito del foro} in the temple precinct\textsuperscript{616}, at least eight cargo ships would have been needed to supply the stones to these two structures alone. Large coloured marble monoliths were available more readily for Imperial building programs, as the Emperors had both the capital and resources to supply their buildings with the necessary large and lavish marbles from the Imperial quarries such as Simiththus, Docimium, Teos, Carystos, and Egypt. These quarries were exploited for the construction of the Fora of Augustus and Trajan.\textsuperscript{617}

In addition to the quarrying cost, there was also the issue of traffic and the transportation of these large columns once they had arrived at Rome. All of the coloured marble columns of the Forum of Augustus and the Forum of Trajan were monolithic; the capitals and bases of all the columns in the two complexes were made of Luna marble. The Forum of Augustus required as many as 200 columns made from four different marble types: \textit{giallo antico}, \textit{cipollino}, \textit{pavonazzetto} and \textit{africano}.\textsuperscript{618} The Forum of Trajan required up to 480 columns, also made of four different marble types: \textit{pavonazzetto}, \textit{cipollino}, \textit{granito del foro}, and \textit{giallo antico}.\textsuperscript{619} Transporting these monoliths through the streets of Rome posed a serious challenge. Precise planning was needed in order to navigate through a considerable portion of the heavily built up capital.\textsuperscript{620} From the quarries, the marble was taken to Portus or Ostia, near the mouth of the Tiber, then transported 30 km to the Emporium yards on the banks of the Tiber southwest of the Aventine hill.\textsuperscript{621} Larger

\begin{enumerate}
\item DeLaine 1997, 216-219.
\item Pensabene and Magaña 2015, 4.
\item Meneghini 2009, 131; Claridge 2007, 55; 59.
\item Corcoran and DeLaine 1994, 268. See also Fant 2001a and Russell 2013, 184-200. The Emperors had a monopoly on these quarries, based on the evidence of the presence of imperial officials, quarry inscriptions and distribution patterns in Italy and the Roman Empire.
\item \textit{LTUR II} 1995, 290-292. The estimation of the number of columns is based on a reconstructed plan of the Forum of Augustus by E. Bianchi and R. Meneghini (Meneghini 2009, fig. 57). The exact marble types used in the two minor exedrae, which were destroyed for the building of the later Imperial Fora, is still unknown.
\item Bianchi and Meneghini 2002, 406.
\item Juvenal (\textit{Satires} 3.257), the late first century writer complained about the problem of continual traffic, crowds and chaos in the narrow streets of Rome.
\item Maischberger 1995, 325; Fant 2001b, 194-195.
\end{enumerate}
monolithic columns had to be transported directly to their final destination, as it was not feasible to store and constantly move them, given the high risk of damaging the stones. Once the cargo arrived at the Emporium, the smaller monoliths were transported through the city using carts and wagons, while the large monoliths were unloaded and moved through the city on sleds pulled by a large train of oxen. The number of oxen required depended on the load and length of the monolith. In the 1920s and early 1930s, during the movement of the obelisk of Mussolini, Luna marble was transported from the quarries to Rome using a similar method of transport to the ancient Romans which was documented in photographs (Figure 108 & Figure 109). The use of a tractor was the only modern machinery in the transport process. This gave a relatively accurate indication of the methods used in the Roman period to move such monolithic columns; they also demonstrate the technical achievements and mastery of the ancient Romans in relation to stone handling and transportation, a process which had not changed significantly from the Imperial period to the early twentieth century.

The transportation of the monoliths for both fora through the streets showcased the Imperial marbles in a continual parade. On its journey from the Emporium near the Aventine Hill to the construction site, the monolith was transported along the road next to the Tiber leading through the Velabrum (Figure 110). From here there were two possible routes: a more direct route from the area of the Forum Boarium to the southeast of the Capitolium reaching the Forum Romanum and to the Forum of Julius Caesar (Figure 111, route A) approximately 1.7 km, or a longer route towards the Campus Martius and around the Capitol hill to the site (Figure 111, route B) roughly 2 km. The smaller monoliths may have taken the direct route, however, it was easier to maneuver the larger monoliths

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622 Pensabene and Domingo Magaña 2015, 3 (There would be no need to store monumental marble architectural pieces as these would only be needed in Imperial building, which would have been specially ordered by the Imperial architects for specific complexes).

623 Pensabene and Domingo Magaña 2015, 3; 6-7. Tibullus (Ellegies 2.3.43-44) describes the carrying of columns in Augustus’ city by one thousand pairs of oxen. Although this is an exaggeration of the number of actual oxen used, it does demonstrate the perception of a large force required to move such heavy columns in Rome.

624 Pensabene (Pensabene and Domingo Magaña 2015, 6-7) calculated that 20 tons needed the force of between twelve and fifteen men, so the transport of large monolithic columns needed a larger workforce. Thirty oxen were estimated to have been used to transport 50-55-ton columns at a length of 11.8 m, while 100 oxen were used to move 140-ton shafts at a length of 15 m.


627 Bianchi and Meneghini 2002, 405; Pensabene and Domingo Magaña 2015, 10. The possible routes were similar for Augustus.
on the longer route; there was also a lower risk of damage to the column and the existing buildings when following this route.628

Movement within the city was only a fraction of the overall journey and effort of transporting, but this would have caused quite the stir in the already chaotic and busy city of Rome. Pliny reports on the commotion that Scaurus caused in 58 BCE when transporting 11.4 m *africano* columns for the atrium of his house; Pliny described the public contractor for the sewers compelling Scaurus to give a deposit for possible damages.629 The columns in the Forum of Augustus were smaller than those used by Scaurus; however, Scaurus was likely transporting fewer than ten columns to adorn his house. The architects of the Forum of Augustus and Trajan, on the other hand, would have had to organize and transport hundreds of columns to the construction site at the center of the city. The architects of the Forum of Trajan would have created even greater commotion moving monolithic columns of colossal proportions. During their respective reigns, the spectacle of moving such vast quantities of the finest marbles were public parades of the symbols of their unlimited power and once they were erected inside the complexes, they communicated permanent symbolic messages testifying to the greatness of the imperial figures.

Almost 200 coloured monolithic columns ca. 7 m in height and made of *giallo antico*, *cipollino*, and *pavonazzetto*, were used in the porticoes, exedrae and Hall of the Colossus in the Forum of Augustus (see also Table 1).630 According to Strabo, Augustus conveyed monoliths to Rome that were remarkable for their size, despite the heavy burden of transport.631 Their use within the Forum was the first example of the large-scale application of a range of coloured monolithic columns. Wherever a visitor walked in the complex, the large monolithic columns were on display, in all their majesty. The sheer size and mass of the monolithic columns was extraordinary, particularly given the transportation and quarrying methods available at the time: the colour of the marbles communicated their provenance and demonstrated Augustus’ ability to overcome overseas transportation issues, while the size of the monoliths attested to the power and technological advancements achieved under Augustus’s rule. This, in turn, paved the way for centuries of colossal marble construction in Rome.632

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628 Pensabene and Domingo Magaña 2015, 10-11.
629 Pliny *NH* 36.5.
630 Wilson Jones 2000, 222-224. See n. 88 (The estimation of the number of columns is based on a reconstructed plan of the Forum of Augustus by E. Bianchi and R. Meneghini (Meneghini 2009, fig. 57).
The Temple of Mars Ultor had 15 m columns erected on its porches. These were made of Luna marble drums, which were quarried as blocks, transported separately and assembled on site (Figure 39). During the Augustan period, Luna was politically significant as it was the local stone and symbolized Roman hegemony. The Temple of Mars Ultor was among the few buildings in Rome to have columns of 15 m, and although they were not monolithic, they were still impressive in the Augustan period.

One hundred years later, the Forum of Trajan surpassed the Forum of Augustus in terms of size and grandeur. The height of the coloured monoliths — made of pavonazzetto, giallo antico, cipollino and granito del foro — ranged from 3.5 m to 15 m; only a fraction of the monoliths was less than 5 m in height, while the rest stood more than 7.1 m tall (see Table 2). The transportation of such a large number of monolithic columns of significant size from quarries around the empire truly reflects the greatness of the Emperor Trajan and permanently stood as symbols of his power.

Like the Temple of Mars Ultor, the Temple of the Deified Trajan boasted 15 m columns on its porches, but the columns of the Temple of Trajan were monolithic columns of granito del foro, from one of the most remote quarries in the Roman world. These monoliths weighed approximately 107 tons each — the largest and heaviest pieces used in the construction of the Forum of Trajan. The elevated prestige of the monoliths of the Forum of Trajan also lay in the extreme remoteness of the quarries and the difficulty associated with the transportation of the colossal 15 m columns. Such monolithic 15 m columns were rare in Rome, only known to have been used in three other monuments: one for the Column of Antoninus Pius (161 CE), the Baths of Trajan and the Temple of the Deified Trajan (ca. 128 CE). There are no known 15 m monoliths prior to the reign of Trajan, which would have underscored the superiority of the temple over all the others in Rome. The 15 m columns of the Temple of the Deified Trajan again parallel the height of the columns of the Temple of Mars Ultor but surpasses it in a show of power through the use of monolithic columns.

The use of monolithic columns, especially of such large proportions, was an obvious communication of middle-level meaning used to convey symbolizing power, status, control and stability of the empire. Height and size are universally regarded as an indication of

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638 Wilson Jones 2000, 208. See n. 73.
importance, and symbolize power and authority. The prestige of monolithic columns was linked to the effort it took to quarry and transport; the greater the effort required and exhaustion of resources, the greater impact on popular opinion. These structures required enormous amounts of labor, materials, construction, planning, management, and organization of labour crews in order to transport large quantities of the finest marbles from the quarries to the Fora of Augustus and Trajan. The quantity and variety of coloured monoliths displayed in the two fora was an impressive show of Roman technology and engineering and was a source of awe and wonder for any observer, attesting to the power and god-like nature of the person able to create it, the Emperor.

5.5 Conclusion
The dazzling display and grandeur exemplified through the use of coloured marbles in the Forum of Augustus and the Forum of Trajan demonstrated the breadth of the Roman Empire and the resources available to the Emperor. The colour of the marbles communicated the provenance of the marbles and were symbols of the Imperial geography. Furthermore, the choice of particular stones and the symbolism associated with their colour constitutes middle-level meaning and was used to communicate the power, status, prestige, identity and control of the Emperor.

Monumental displays in architecture were understood across cultures. This meant that non-Roman visitors, perhaps a foreign slave attending a manumission ceremony, or those unfamiliar with the Roman writers or the symbolism of the colours and identification

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644 Sid. Apol. Carm. 2.544-545; Milella 2007, 196; FUR 29.
of the quarries, would still be able to understand the monumentality of the complex. Middle-level meanings communicated through the symbolism of the coloured marbles were important in monuments such as the Fora. Even standing in the archaeological site today, the middle-level meaning of power is still communicated through the ancient remains. One can only imagine the visual impact that extraordinary complexes such as these would have on the visitor, especially the first time they stepped into the main squares; similar to Constantius II’s reaction of total awe on seeing the Forum of Trajan for the first time, so impressive was its beauty. ⁶⁴⁵

⁶⁴⁵ Amm. Marc. 16.10.15.
Conclusion

The modern architect Amos Rapoport once stated that meaning is central to the human understanding of the built environment. In ancient Rome, symbolism and ideologies were effectively communicated through architectural and design elements, such as the application of coloured marble within the Forum of Augustus and the Forum of Trajan. These prestigious displays of monumental architecture served as symbols of power, legitimizing the emperor’s reign and extending their influence beyond death. The different levels of meaning, as identified by Rapoport, were used to critically examine the function and symbolic meaning of the coloured marbles utilized within the Fora of Augustus and Trajan. 646

In its discussion of both the Forum of Augustus and the Forum of Trajan, this study has demonstrated that there are not only many parallels between the choice of individual marbles used in the two complexes, but also the ways in which they were arranged. Within both monumental complexes, coloured marble played more than just a decorative role. Its meticulous arrangement and design were intrinsically connected with the everyday function of each space. The arrangement of coloured marbles provided a navigational guide to visitors, directing the flow of movement within the complexes, and delineating and defining the spaces. Through visual cues, the visitor’s gaze would be drawn to specific details and design elements. 647

The marble also functioned as a ‘symbolic code’ that encouraged viewers to draw upon their culturally-shared knowledge, heritage and history. 648 Gellius, writing in the mid-second century CE, noted an interesting interaction between the space and visitors, “Favorinus inquired, when waiting in the court of the forum [of Trajan]… asked what that inscription manubiae seemed to us really to mean.” 649 In their discussion of the inscription, they recall writings and narratives of the Late Republican generals, Pompey and Cicero. 650 This passage both demonstrates that the ancients drew on their shared tales and history in order to receive and interpret meaning. 651

646 Rapoport 1988, 325.
647 Rapoport 1990, 107. See also n. 397 of this thesis.
648 Rapoport 1990, 44; Favro 1996, 10.)
650 Gell. 13.25.1-7.
651 Favro 1996, 10.
Low-level meanings, which communicate instrumental everyday meanings, were identified within the variations of the coloured marble pavements, the colour contrasts of the monolithic columns and the architectural arrangement in the Fora of Augustus and Trajan. Middle-level meanings, which conveyed ideologies, were deliberately chosen to communicate an underlying theme or message, which in the context of the Forum of Augustus and the Forum of Trajan were related to the power, wealth, control, stability and status of the emperor. The “high-level” meanings communicated increasingly abstract concepts related to cosmological and philosophical systems, which would only have been understood by specialized groups of people, such as priests and philosophers. While this is not to say that the Forum of Trajan and the Forum of Augustus do not possess or display high-level meanings, the analysis of coloured marbles in these complexes indicates that they were intended to communicate deliberate symbolic messages of imperial power, control, and status (middle-level meanings) to a wider audience in Rome.

The use of Rapoport’s analysis model has enabled an in-depth and comprehensive study of the choice of the individual marbles and their application in the ornament design of the building. Discussing the different levels of meaning is helpful, as it allows us to move beyond terming architectural features as simply “symbolic.” Meanings can exist on a spectrum of understanding: i.e. one might not be prioritized over another and different ‘layered’ levels can exist simultaneously in the same space to convey an underlying message. This thesis has enhanced the understanding behind the intended purpose(s) of the coloured marble within the Fora of Augustus and Trajan.

This type of study can be applied to a wider range of materials and forms within the Roman built environment, in order to enhance the overall understanding of wider meanings. More studies of imperial buildings can apply this system of levels in order to fully present the layers meaning within the Roman built environment.

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652 Rapoport 1988, 325.
**Tables**

**Forum of Augustus (2 BCE)**

<table>
<thead>
<tr>
<th>Marble</th>
<th>Location of columns in the complex</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cipollino</strong></td>
<td>Exedrae (first storey)</td>
<td>7 m</td>
</tr>
<tr>
<td><strong>Giallo antico</strong></td>
<td>Numidia, North Africa Porticoes Exedrae (second storey)</td>
<td>7 m (?)</td>
</tr>
<tr>
<td><strong>Africano</strong></td>
<td>Teos, Asia Minor Exedrae (second storey)</td>
<td>(?)</td>
</tr>
<tr>
<td><strong>Pavonazzetto</strong></td>
<td>Docimium, Asia Minor Hall of the Colossus Cella of the Temple of Mars Ultor</td>
<td>7 m (?)</td>
</tr>
</tbody>
</table>

Table 1. Location and height of the coloured marble monolithic columns known in the Forum of Augustus.

**Forum of Trajan (112/113 BCE)**

<table>
<thead>
<tr>
<th>Marble</th>
<th>Location of columns in the complex</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Granito del foro</strong></td>
<td>Exedrae (central niches) Basilica Ulpia Temple Precinct</td>
<td>7.1 m 8.8 m 15 m</td>
</tr>
<tr>
<td><strong>Cipollino</strong></td>
<td>Euboea, Greece Basilica Ulpia Southeastern courtyard Southeastern entrance façade</td>
<td>7.6 m 7.6 m 11.8 m</td>
</tr>
<tr>
<td><strong>Giallo antico</strong></td>
<td>Numidia, North Africa Exedrae Entrance to the Libraries Southeastern entrance façade</td>
<td>7.1 m 7.2 m 11.8 m</td>
</tr>
<tr>
<td><strong>Pavonazzetto</strong></td>
<td>Docimium, Asia Minor Libraries (first storey) (second storey) Porticoes of the main square Porticoes of the Column of Trajan Southeastern entrance façade</td>
<td>4.7 m 3.5 m 7.1 m (7.2 m) 11.8 m</td>
</tr>
</tbody>
</table>

Table 2. Location and heights of the coloured marble monolithic columns known in the Forum of Trajan.

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653 Wilson Jones 2000, 222-224 (The height of the *pavonazzetto* column shafts in the Hall of the Colossus, would have been the same height as the porticoes. Bauer (1985) reconstructs the height of the column shafts of the Forum of Augustus’ porticoes ca. 7 m tall).

654 This measurement is based off the height of the columns in the entrance to the libraries, which was attached to this portico.

655 Based on Bianchi and Meneghini 2002, table 6. Meneghini 2009, 131; 139. See also Chapter 4.
### Forum of Augustus

<table>
<thead>
<tr>
<th>Locations of marble pavements</th>
<th>Marble types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porticoes</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Africano</em></td>
</tr>
<tr>
<td></td>
<td><em>Bardiglio</em></td>
</tr>
<tr>
<td>Exedrae</td>
<td><em>Africano</em></td>
</tr>
<tr>
<td></td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td>Hall of the Colossus</td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td></td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td>Temple of Mars Ultor cella</td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td></td>
<td><em>Africano</em></td>
</tr>
<tr>
<td></td>
<td><em>Giallo antico</em></td>
</tr>
</tbody>
</table>

Table 3. Location and coloured marble types used in the marble pavements of the Forum of Augustus.

### Forum of Trajan

<table>
<thead>
<tr>
<th>Locations of marble pavements</th>
<th>Marble types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portico of sunken courtyard</td>
<td><em>Cipollino</em></td>
</tr>
<tr>
<td></td>
<td><em>portasanta</em></td>
</tr>
<tr>
<td>Porticoes (main square)</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td>Exedrae</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td>Basilica Ulpia (Nave / Apses / Aisles)</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td></td>
<td><em>Africano</em></td>
</tr>
<tr>
<td></td>
<td><em>Granito del foro</em></td>
</tr>
<tr>
<td>Portico of Column of Trajan courtyard</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Pavonazzetto</em></td>
</tr>
<tr>
<td>Libraries</td>
<td><em>Giallo antico</em></td>
</tr>
<tr>
<td></td>
<td><em>Granito del foro</em></td>
</tr>
</tbody>
</table>

Table 4. Location and coloured marble types used in the marble pavements known in the Forum of Trajan.
Appendix 1
Glossary of the marble types, geographical origin and names

(Listed by place of origin)

Marbles that are the focus of this thesis:

**CARYSTOS** – Euboea, Greece. *Marmor Carystium*, often referred to as *cipollino*. Coarse-grained, compact marble with alternating and undulating bands of light and dark green.

**DOCIMIUM** – central Asia Minor. *Marmor Synnadicum, marmor Docimum, marmor Phrygium*, often referred to as *pavonazzetto*.

**SIMITTHUS** – Numidia. *marmor Numidicum* often referred to as *giallo antico*. Compact, fine-grained limestone that varies from ivory to golden yellow, to a deep orange. In some instances, *giallo antico* contains dark-yellow or reddish-brown veining and often has a brecciated appearance.

**TEOS** – Asia Minor. *Marmor Luculleum*, often referred to as *africano*. The colour of this stone varied; it is a breccia of red, white, and pink within a black matrix, but can also be dark green or grey.

**GEBEL FATIREH** – Mons Claudianus, Eastern Egyptian desert. *Marmor Claudianum*, often referred to as *granito del foro*. Coarse-grained granite, with white and black speckles.

Other marbles mentioned:

**ASWAN (SYENE)** – Egypt. Pink granite. Pinkish-red specked with darker pink, white and black.

**CARRARA** – Italy. *bardiglio*. Blue-grey marble.

**CHIOS** – eastern Aegean. *Marmor Chium*, often referred to as *portasanta*. Pale shades of pink and grey with some darker veins.

**CROCEAE** – near Sparta. *Marmor Lacedaemonium*, often referred to as Lacadaemonian or Laconian porphyry. Dark green porphyry with lighter green or sometimes yellow inclusions.

**GEBEL FATIREH** – Mons Porphyrites, Eastern Egyptian desert. *Marmor Porfyritici* Often referred to as purple porphyry. Deep red to purple matrix with white inclusions.
Bibliography

Ancient Authors

All translations were consulted from the Loeb Classical Library, unless marked otherwise.

Appian. Roman History.
Asconius. Pro Scauro.
Aulus Gellius. Attic Nights
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Cicero. Against Verrus
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Lucius. Hippias or Baths.
Ovid. Amores
Ovid. Fasti.
Pausanias. Description of Greece.
Pliny the Elder. Natural History.
Pliny the Younger. Letters.
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Procopius. History of the Wars.
Propertius. *Elegies.*
Seneca the Younger. *Epistles.*
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Strabo. *Geography.*
Suetonius. *The Twelve Caesars.*
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Velleius Paterculus. *Compendium of Roman History.*
Modern Authors


Degrassi, A. (1947) *Inscriptiones Italiae XIII.I.* Rome


Figures
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Figure 109. Transportation of the Luna marble monolith of Mussolini pulled by 100 oxen.
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