

# Archaeology and Economy in the Ancient World



22

**Local Styles or Common Pattern Books in Roman Wall Painting  
and Mosaics**

Panel 3.22

Renate Thomas (Ed.)



**Proceedings of the  
19<sup>th</sup> International Congress of Classical Archaeology**

**Volume 22: Local Styles or Common Pattern Books  
in Roman Wall Painting and Mosaics**

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**Cologne/Bonn, 22 – 26 May 2018**

**Archaeology and Economy in the Ancient World**

**Edited by**

**Martin Bentz and Michael Heinzelmann**

**Volume 22**





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**Propylaeu**

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# Propylaeum

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## PREFACE

On behalf of the 'Associazione Internazionale di Archaeologica Classica (AIAC)' the 19<sup>th</sup> International Congress for Classical Archaeology took place in Cologne and Bonn from 22 to 26 May 2018. It was jointly organized by the two Archaeological Institutes of the Universities of Cologne and Bonn, and the primary theme of the congress was 'Archaeology and Economy in the Ancient World'. In fact, economic aspects permeate all areas of public and private life in ancient societies, whether in urban development, religion, art, housing, or in death.

Research on ancient economies has long played a significant role in ancient history. Increasingly in the last decades, awareness has grown in archaeology that the material culture of ancient societies offers excellent opportunities for studying the structure, performance, and dynamics of ancient economic systems and economic processes. Therefore, the main objective of this congress was to understand economy as a central element of classical societies and to analyse its interaction with ecological, political, social, religious, and cultural backgrounds. The theme of the congress was addressed to all disciplines that deal with Greco-Roman civilization and their neighbouring cultures from the Aegean Bronze Age to the end of Late Antiquity.

The participation of more than 1200 scholars from more than 40 countries demonstrates the great response to the topic of the congress. Altogether, more than 900 papers in 128 panels were presented, as were more than 110 posters. The publication of the congress is in two stages: larger panels are initially presented as independent volumes, such as this publication. Finally, at the end of the editing process, all contributions will be published in a joint conference volume.

We would like to take this opportunity to thank all participants and helpers of the congress who made it such a great success. Its realization would not have been possible without the generous support of many institutions, whom we would like to thank once again: the Universities of Bonn and Cologne, the Archaeological Society of Cologne, the Archaeology Foundation of Cologne, the Gerda Henkel Foundation, the Fritz Thyssen Foundation, the Sal. Oppenheim Foundation, the German Research Foundation (DFG), the German Academic Exchange Service (DAAD), the Romano-Germanic Museum Cologne and the LVR-LandesMuseum Bonn. Finally, our thanks go to all colleagues and panel organizers who were involved in the editing and printing process.

Bonn/Cologne, in August 2019

Martin Bentz & Michael Heinzemann



# VORWORT

Das Phänomen der sehr ähnlichen Einzelmotive in der römischen Wandmalerei und Mosaikkunst an weit voneinander entfernt liegenden Fundorten in Italien und den Provinzen legt die Vermutung nahe, dass für die Motive Musterbücher in Umlauf waren, die Malern und Mosaizisten zur Verfügung standen.

Solche Vorlagen wurden offensichtlich auch gattungsübergreifend genutzt. So dass bisweilen nicht mehr zu entscheiden ist, ob einer tradierten Bildkomposition eine Skulpturengruppe, ein Relief oder ein Gemälde zugrundeliegt. Gerade in der Reliefkunst in Gerätzusammenhang ist zu beobachten, dass sich die Werkstätten auf bewährte Kompositionsschemata stützen und für ihre Bildkompositionen einzelne Figuren versatzstückartig zu neuen Bildern zusammensetzen. Dabei können wie in der Malerei die Figuren gespiegelt werden und durch das Weglassen oder Hinzufügen von antiquarischen Details neue Inhalte vermittelt werden. Im Falle der Terra sigillata-Produktion ist anzunehmen, dass neben gezeichneten Musterbüchern in den Werkstätten auch Tonmodel genutzt wurden, die von torentischen Vorlagen abgenommen worden sind.

Das Thema des panels „Lokalstile oder gemeinsame Musterbücher in der römischen Wandmalerei und bei Mosaiken“ hat zu sehr unterschiedlichen Referaten angeregt, die die verschiedenen Aspekte der antiken Bilderfindung und -komposition veranschaulicht haben. Es hat sich gezeigt, dass die Existenz von Musterbüchern nicht zu bezweifeln ist, dass die in der Forschung kontrovers diskutierte Vorstellung davon, wie diese Musterbücher ausgesehen haben, jedoch dahingehend differenziert werden muss, dass es verschiedene Formen von ‚Musterbüchern‘ gegeben hat: 1. Vorlagekartons nur mit Mustern, Ornamenten und Bordüren etc., wie z.B. die für Textilien verwendeten Webkartons; 2. Musterbücher mit figürlichen Einzelmotiven, wie z.B. die Tierskizzen auf dem Artemidoros-Papyrus; 3. Kompendien mit Skizzen von szenischen Zusammenhängen; 4. Zusammenstellungen mit getreuen Kopien berühmter griechischer Bilder, die auch die Farbigkeit überliefern, wie z. B. dem im Alexandermosaik überlieferten Bild, außerdem 5. Gipsabformungen.

Unabhängig davon schließt die Zuhilfenahme von ‚Musterbüchern‘ in einer Maler- oder Mosaiken-Werkstatt nicht aus, dass Werkstätten gereist sind und ihre eigenen Vorlagen mitgebracht haben. So ist die Folgerung, dass die aus republikanischer Zeit stammenden frühesten Malereien in Gallien wie z.B. in Arles von italischen Künstlern ausgeführt wurden, naheliegend, sie erklärt aber nicht das gleichzeitige Vorkommen verwandter Motive an weit auseinanderliegenden Orten des römischen Reiches wie z.B. in Lyon und am Magdalensberg.

An der Art und Weise wie man mit den zur Verfügung stehenden ‚Mustern‘ umgeht, welche man auswählt und in welcher Form man sie verändert, lassen sich Lokalstile herausarbeiten und außerdem chronologische Tendenzen feststellen.

Renate Thomas





# Antike Musterbücher

Renate Thomas

Das Vorkommen von sehr ähnlichen Einzelmotiven in der römischen Wandmalerei und Mosaikkunst an weit voneinander entfernt liegenden Fundorten in Italien und den Provinzen legt die Vermutung nahe, dass für die Motive Musterbücher in Umlauf waren, die Malern und Mosaizisten zur Verfügung standen. Die Frage, ob es diese in der Antike tatsächlich gegeben hat oder nicht, wird jedoch in der Forschung kontrovers diskutiert, was nicht zuletzt damit zusammenhängt, welche Vorstellung man mit diesen ‚Musterbüchern‘ verbindet und wie man sie definiert.

Neben den Begriffen ‚Musterbuch‘<sup>1</sup>, *pattern-book*<sup>2</sup> oder *cahiers de modèles*<sup>3</sup> wird auch die Bezeichnung ‚cartons de modèles‘ oder *cartoni* verwendet. Mit der Benennung als ‚Bücher‘ geht man von mehr oder weniger geschlossenen Sammlungen aus, mit Kartons von Einzelvorlagen, die individuell zusammengestellt wurden. Wie man sich die ‚Muster‘ vorstellt, wird teilweise mit der Benennung als Skizzenbücher bzw. ‚copy-books...with sketches‘<sup>4</sup> präzisiert. Demgegenüber steht die unausgesprochene Gleichsetzung von Musterbüchern mit ‚Büchern mit Mustern‘<sup>5</sup>. Folgerichtig wurde die Frage gestellt, ob es in der griechisch-römischen Antike auf diesen Mustervorlagen basierende serielle Malereien bzw. *peintures en série* gegeben hat<sup>6</sup>. Einer der größten Gegner der Musterbücher war Ph. Bruneau, der befürchtete, durch eine Anerkennung der Existenz von Musterbüchern die geistige Urheberchaft des kreativen Genies des antiken Künstlers zu verleugnen<sup>7</sup>.

Ich möchte im Folgenden diese unterschiedlichen Vorstellungen von antiken Musterbüchern in der Forschung genauer untersuchen, darstellen, worauf sie basieren und wie sie zu begründen sind, um zu einem differenzierteren Bild von den, wie ich meine, verschiedenen Ausprägungen der sog. Musterbücher und letztendlich der Arbeitsweise der antiken Künstler zu gelangen.

Die Existenz von Kompendien mit Mustern, die als Vorlagen für die Verzierung von Stoffen verwendet wurden, kann dank der Funde von Papyrusblättern mit Zeichnungen aus dem 2. bis 7. Jh. n. Chr. in Ägypten als gesichert gelten (Abb. 1 a). Dass diese von A. Stauffer als Wirkkartons bezeichneten Papyri tatsächlich als Webvorlagen genutzt wurden, geht nicht nur aus erhaltenen Stoffresten hervor, sondern auch aus technischen Details, wie u.a. Befestigungslöchern und daraus, dass Ornamente teilweise nur halb angegeben sind, damit sie durch Drehen und Verschieben zu einem unendlichen Rapport erweitert werden können<sup>8</sup>.

Da sich in Palmyra vergleichbare Muster auch in der Bauornamentik und auf Sarkophagreliefs nachweisen lassen, folgerte A. Schmidt-Colinet, dass Bücher mit den Mustern von den Textilwerkstätten über die Bildhauerateliers zu den Architekturwerkstätten gelangten<sup>9</sup>. Da aber die gleichen Muster auch in den Sigillata-Werkstätten bekannt waren (Abb. 1 b)<sup>10</sup>, muss man daraus vielmehr schließen, dass sich sowohl Weber als auch Steinmetze und Töpfer auf Arbeitsblätter stützten, die auf gemeinsame Mustervorlagen zurückgehen.

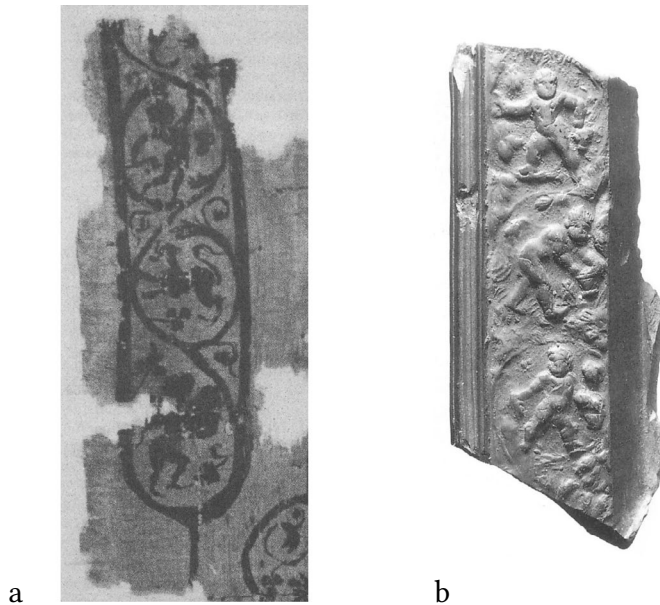


Abb. 1: a) Wirkkarton, Papyrus, 4. Jh. n. Chr.; b) Fragment vom Rand einer nordafrikanischen Sigillata-Platte mit einem Erotenfries, 2. H. 4./1. H. 5. Jh. n. Chr., München, PStslg. Inv. 1987,993.

Dessen ungeachtet darf man auch den Aspekt der Genese der Muster nicht außer Acht lassen. Bestimmte Ornamente, die in der Wandmalerei oder auf Mosaiken kopiert werden, wie das versetzte Quadratmuster oder das Fransenmuster, gehen aus der Technik des Webens hervor. In demselben Sinne erklären sich die flächendeckenden Kassettenrapporte aus den konstruktiven Erfordernissen einer gebauten Balkendecke und Muster mit isodomen Quaderreihen als Nachahmung von Mauerwerk (Abb. 2). So dass in diesem Falle nicht notwendigerweise Zeichnungen als Vermittler angenommen werden müssen, wenn diese Muster in anderen Gattungen wiederholt werden, sondern eher die realen Vorbilder in Frage kommen.

Vollkommen anders geartet sind Musterbücher, die mit Skizzen von figürlichen Motiven und szenischen Bildern assoziiert werden. Als Begründung für deren Existenz werden vor allem zwei Schriftquellen ins Feld geführt. Bei der einen handelt es sich um einen aus dem 2. Drittel des 3. Jhs. v. Chr. stammenden Papyrus, in welchem berichtet wird, dass sich der Mosaizist bei der Ausführung eines floralen Motivs der Hilfe eines Paradeigma bediente<sup>11</sup>. Dieses könnte man als Vorlage in einem Konvolut von Beispielbildern interpretieren, aber auch als Vorbild-Karton des Werkstatt-Meisters, der eigens für die Herstellung dieses Mosaikbodens angefertigt wurde. Zumal eine gezeichnete Vorlage für die Komposition eines Mosaikbodens vorauszusetzen ist und sich Kartons mit den einzelnen Motiven als technisches Hilfsmittel für die Umsetzung der Bildvorlage in Mosaiksteinen empfehlen.

Die andere Quelle, die in Zusammenhang mit ‚Musterbüchern‘ herangezogen wird, findet sich bei Plinius, Nat. hist. XXXV 68, wo er von dem im 5. Jh. v. Chr. tätigen



Abb. 2: Pompeji III 2, Casa di Trebius Valens. Mauerwerk nachahmendes geometrisches Muster mit isodomen Quaderreihen. 4. Stil.

griechischen Maler Parrhasios berichtet, dass er Skizzen angefertigt habe, die noch in der Folgezeit für andere Künstler vorbildhaft blieben und von diesen benutzt wurden. Dabei wird es sich nicht um die Originale des Parrhasios gehandelt haben, sondern es ist davon auszugehen, dass von seinen Skizzen Kopien angefertigt wurden, die über einen längeren Zeitraum, bis in die Zeit des Plinius unter den Malern kursierten. In dieser Quelle ist also ein konkreter Hinweis darauf enthalten, dass sich verschiedene Maler eines gemeinsamen bzw. desgleichen Fundus an Zeichnungen als Hilfsmittel bedienten. Daraus geht jedoch nicht hervor, wie diese Skizzenblätter aussahen und ob den Malern weitere Skizzen nach Werken anderer Künstler vorlagen und ob diese inhaltlich oder thematisch katalogartig zusammengefasst waren.

Als eine Bestätigung für die Anfertigung und Nutzung von Skizzen als Hilfsmittel in den Maler-Ateliers kann der vermutlich zu Beginn des 1. Jhs. n. Chr. in Alexandria erstellte Artemidoros-Papyrus angesehen werden<sup>12</sup>, der einen fünfspaltigen griechischen Text über Geographie nebst einer Landkarte enthält. Er wurde als Anfang des gegen Ende des 2./Anfang des 1. Jhs. v. Chr. verfassten, Spanien behandelnden II. Buchs des Geographen Artemidoros aus Ephesos identifiziert.

Offenbar gab man die Arbeit an der Abschrift des geographischen Werkes auf und malte in einer zweiten Phase auf die Rückseite des Papyrus Tiere, wobei deren griechische





Abb. 3: Artemidoros-Papyrus mit Skizzen von Händen und Füßen sowie menschlichen und göttlichen Köpfen, die in einer dritten Nutzungsphase auf freigelassene Zwischenräume des Textfragmentes eingefügt wurden.

Beischriften in einer anderen Handschrift ausgeführt sind als der geographische Text. In einer dritten Phase wurden auf der Vorderseite an den Rändern des Textfragments sowie auf freigelassenen Zwischenräumen, Skizzen von Händen und Füßen sowie menschlichen und göttlichen Köpfen eingefügt (Abb. 3). Reparaturen an dem Papyrus lassen darauf schließen, dass die Skizzen auf der Rückseite für den Werkstattgebrauch weiterhin genutzt wurden, als man die Vorderseite mit anatomischen Zeichnungen versah. Die Nutzungsphase des Papyrus war gegen Ende des 1. Jhs. n. Chr. beendet. In jedem Falle sind die Skizzen in der Werkstatt über einen gewissen Zeitraum mehrfach gebraucht worden. Ob man sie lediglich als Arbeitsgrundlage für Bilder oder Mosaiken benutzte oder sie außerdem potentiellen Auftraggebern zur Auswahl vorlegte, lässt sich dem Material selbst nicht entnehmen.

Die archaische oder archaistische, lange Haartracht des einen Kopfes, die stilisierte Buckellocken-Frisur des anderen sowie der Medusa-artige Ausdruck des weiblichen Kopfes legen nahe, dass es sich bei den Zeichnungen nicht um Porträtstudien handelt. Da durch Schraffuren und Grautöne plastisches Volumen angegeben ist, sind mit großer Wahrscheinlichkeit Skulpturen als Vorlagen anzunehmen, von denen vermutlich



Abb. 4: a) Detail aus einem Schirmkandelaber einer flavischen Wanddekoration aus Die (Gallia Narbonensis); b) Details aus einem Schirmkandelaber einer neronisch-flavischen Wanddekoration von der Breite Str. in Köln.

Teilabgüsse in den Ateliers vorhanden waren. Diese Überlegung wird durch die Skizzen von einzelnen Gliedmaßen bestärkt.

Wenn man sich bei den Tierbildern noch vorstellen kann, dass sie als Mustervorlagen für die Zusammenstellung eines größeren Frieses oder Bildes gedient haben könnten, gilt dies nicht für die Gliedmaßen, die kaum alternativ für eine Bildkomposition zur Verfügung standen. Ebenso wie die Köpfe sind sie als Werkstattstudien oder Übungen von Schülern und Gehilfen zu verstehen.

Die Zweitverwendung des Artemidoros-Papyrus für werkstattinterne Arbeitsskizzen lässt sich demnach nicht unmittelbar als Beleg für die Existenz von Musterbüchern heranziehen, die werkstatt- und gar gattungsübergreifend tradiert wurden. Lediglich bei den Tierbildern wäre es denkbar, dass diese für den eigenen Bedarf aus einem in einer anderen Werkstatt vorhandenen ‚Musterbuch‘ abgezeichnet wurden.

Und dennoch legen die erhaltenen Denkmäler deren Vorhandensein fast zwingend nahe. Aus der Gegenüberstellung verschiedener Wanddekorationen geht hervor, dass ikonographische Details wie Schwäne mit Halsbändern<sup>13</sup>, auf dem Kandelaberschirm aufliegende gefüllte Voluten (Abb. 4), Oscilla und Vögel in identischer Form an weit entfernten Stellen vorkommen<sup>14</sup>. Da man kaum annehmen kann, dass sich die Maler in Germanien, Gallien und der Hispania gegenseitig beeinflusst haben, muss man von den gleichen Vorlagen ausgehen.

Daneben werden ikonographische Typen, wie z. B. die Schirmkandelaber, als solche übernommen und in der speziellen Ausstattung jeweils anders variiert. Wobei sich auch hier bemerkenswerte Parallelen in den Einzelmotiven feststellen lassen, die über ein allgemeines allen römischen Künstlern gemeinsames Formenrepertoire, wie es Ph. Bruneau sehen möchte<sup>15</sup>, hinausgehen, wenn man z. B. die Schirmkandelaberdekorationen aus Die mit Rankenbäumen aus Pompeji vergleicht (Abb. 5)<sup>16</sup>. Diese lassen sich nur durch einen gemeinsamen Motivschatz erklären, der in gemalter Form vorlag und als Ideenlieferant für neue Kombinationen gedient hat. In diesem Sinne können auch Topoi, wie derjenige der auf einem Zierständer oder Gebälk hockenden Sphinx, übernommen,

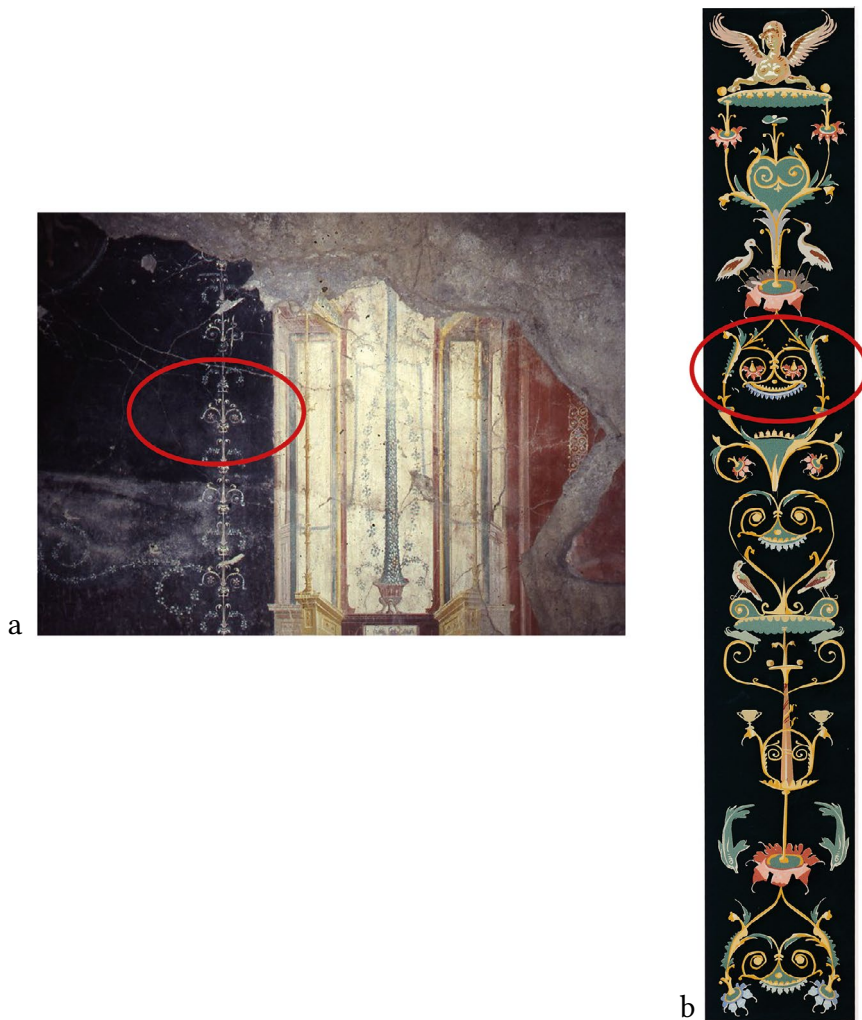


Abb. 5: a) Detail aus einer flavischen Wanddekoration mit Architekturelementen und Zierstäben mit Ranken und Blüten, Pompeji IX 12,9 Casa dei Pittori al lavoro; b) Rekonstruktionszeichnung eines der Schirmkandelaber der Wanddekoration aus Die.

aber individuell interpretiert werden, wie die Vergleiche in Pompeji, Oplontis, Die und Köln zeigen.

Darüber hinaus werden auch ganze Bildkompositionen in leicht veränderter Form übernommen, variiert und aus Einzelementen neu zusammengesetzt. Dies gilt z. B. für die ungewöhnliche Szene von Erosen, die mit Leitern Trauben ernten, die sowohl in Pompeji im Haus des Marcus Lucretius als auch in Köln vorkommt, dort jedoch spiegelverkehrt (Abb. 6)<sup>17</sup>. Die einzelnen Bildelemente wie die Trauben, die Leiter und der bereitgestellte Korb entsprechen sich so stark, dass man von einer gemeinsamen Vorlage ausgehen muss.

Solche Vorlagen standen offenbar auch gattungsübergreifend zur Verfügung. So wurde für das Relief der Theseus-Minotauros-Szene auf dem sog. Hesionesarkophag in



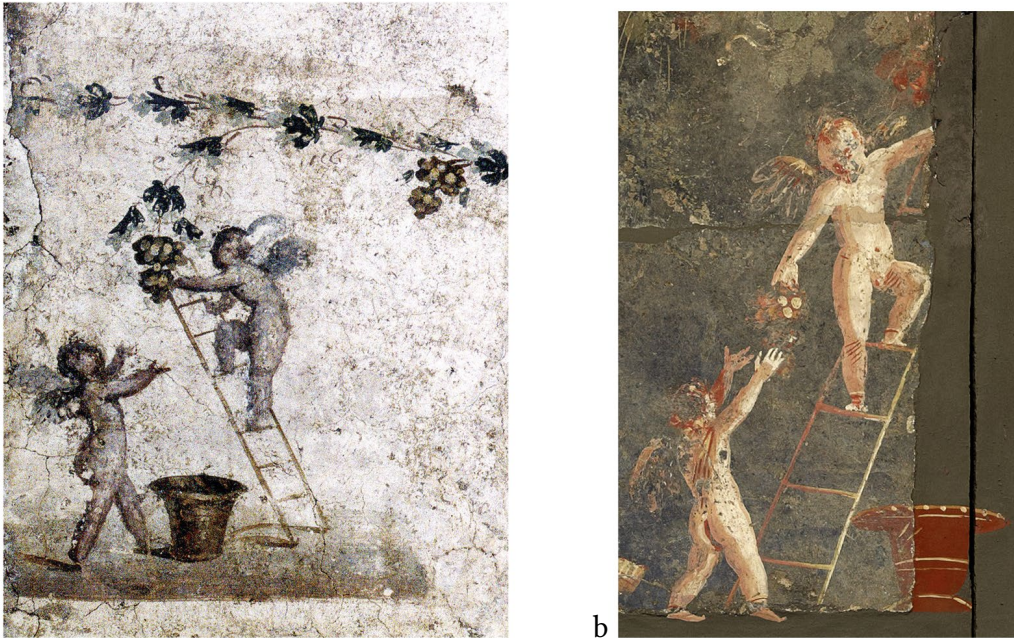


Abb. 6: a) Pompeji IX III 35, Casa di Marcus Lucretius, Eroten mit Leitern bei der Weinernte; b) Köln, Dominsula Raum 1434, Detail Eroten mit Leitern bei der Weinernte.

Köln offensichtlich die gleiche Bildvorlage genutzt wie für das entsprechende Wandbild aus dem Legionslager in Echzell<sup>18</sup>.

Diese Beispiele lassen erkennen, dass Grundmuster zwar übernommen, von dem jeweiligen Maler aber leicht verändert werden. In keinem Falle hat man die zu postulierende Vorlage eins zu eins in die eigene Bildkomposition eingefügt. Dies gilt auch für Wanddekorationen, die man derselben Werkstatt zuschreiben kann, wie die Malereien in der Villa des P. Fannius Synistor in Boscoreale und der Villa in Oplontis. Dort hätten die Maler de facto Schablonen von den Motiven herstellen können, die sie mehrfach einsetzen wollten. Die bekannten, mit Obst gefüllten Glasschalen in Cubiculum M in Boscoreale und in Oecus 23 in Oplontis sehen nur auf den ersten Blick gleich aus. Die Gefäße in Oplontis haben an den Seiten Henkel und einen profilierten Fuß, die Schalen in Boscoreale enthalten zusätzliche Früchte. Die Freude an der Variation des Objekts geht aber nicht so weit, dass der Maler die Schale in Oplontis freihändig aus dem Kopf neu gemalt hätte. Denn dann hätte er, wie M. Mulliez zeigen konnte, nicht dieselbe Ansicht gewählt wie in Boscoreale, sondern die bei dem erhöhten Standort in Oplontis folgerichtiger Unteransicht<sup>19</sup>. Eine Mustervorlage scheint er also doch benutzt zu haben.

Noch deutlicher wird diese Arbeitsweise des versatzstückartigen Einsetzens von Bildbausteinen bei den Bildern in der Casa di Iasone in Pompeji (IX 5,18–21). Sowohl in der Szene mit dem Eintreffen des Jason in Iolkos als auch in der mit dem Raub der Europa erscheint derselbe Stier, nur dadurch unterschieden, dass der zum Opfer geführte Stier



Abb. 7: Pompeji IX 5, 18, Casa di Iasone, a) Szene mit dem Eintreffen des Jason in Iolkos; b) Raub der Europa auf dem Stier.

bekrönt ist und auf dem anderen Europa sitzt (Abb. 7)<sup>20</sup>. Die identische Wiedergabe geht sogar so weit, dass jeweils das Hinterteil des Tieres in diffusem Licht angelegt ist. Dass hier von der Malerwerkstatt dieselbe Mustervorlage verwendet wurde, wird noch offensichtlicher, wenn man die Szene neben das entsprechende Bild in der Casa degli Amorini dorati stellt<sup>21</sup>. Beide Bilder sind Kopien nach demselben griechischen Original und stimmen in der Bildkomposition, der Anordnung und Anzahl der Figuren, der Platzierung des Pelias auf der Tempeltreppe und dem Tisch mit den Gefäßen überein. Nur die zum Opfer geführten Stiere weichen voneinander ab, was den Eindruck verstärkt, dass der in der Casa di Iasone mehrfach eingebaute Stier nicht von dem griechischen Original kopiert wurde, sondern nach einem in der Werkstatt vorhandenen Musterbuch gemalt wurde.

In diesem Zusammenhang wird bereits erkennbar, dass das Phänomen der römischen Kopien von griechischen Originalen nur bedingt an die Diskussion um die Existenz von Musterbüchern angeknüpft werden kann, da es sich um zwei unabhängig voneinander bestehende Übermittlungsstränge gehandelt haben muss.

Bekanntermaßen ist eine Anzahl der in die pompejanischen Wanddekorationen integrierten Bilder, aufgrund ihrer thematischen und kompositorischen Übereinstimmungen als Kopien nach griechischen Gemälden zu deuten. Als Beispiele sei auf die Darstellungen von Theseus und Minotauros in der Villa Imperiale und im Haus des Gavius Rufus<sup>22</sup>, von Perseus und Andromeda in der Casa dei Dioscuri in Pompeji sowie in Herculaneum<sup>23</sup>, auf Zephyros und Chloris in der Casa del Naviglio in Pompeji sowie in einer spiegelbildlichen



Umsetzung in der Villa di Arianna in Stabiae verwiesen<sup>24</sup>, außerdem auf mehrere Fassungen von der Auffindung der schlafenden Ariadne durch Dionysos<sup>25</sup>, die Ariadne einerseits in Frontalansicht und andererseits in der Rückansicht zeigen.

Bei dem selten dargestellten Thema von Zephyros und Chloris in der Casa del Naviglio in Pompeji und der Villa di Arianna in Stabiae fällt auf, dass sich in beiden Bildern das Motiv der von Hypnos begleiteten Nymphe Chloris als Wiederholung des Motivs der von Hypnos bewachten, schlafenden Ariadne in der Casa del Ara Massima erweist (Abb. 8)<sup>26</sup>.

Von den griechischen Bildern müssen mehrere getreue, farbige Kopien in Umlauf gewesen sein, die den Malern, aber auch den Mosaizisten über einen längeren Zeitraum zur Verfügung standen, wie es eine Szene mit einem verliebten Paar auf einem Wandgemälde in der Villa Farnesina in Rom beweist, die in einer getreuen Wiederholung auf einem Mosaikemblem aus dem 2. Jh. n. Chr. in Centocelle auftaucht<sup>27</sup>. Auf die gleiche Vorlage gehen auch das aus dem 1. Jh. v. Chr. stammende Mosaik des Dioskurides aus der Villa des Cicero in Pompeji und ein Bild in Stabiae zurück, die offenbar eine Theaterszene aus einer Komödie des Menander darstellen<sup>28</sup>. Die weite Verbreitung dieser Bildvorlagen innerhalb des römischen Imperium über mehrere Jahrhunderte bezeugen auch die Wiederholungen einer Szene aus den Synaristosai des Menander auf einem weiteren Mosaik des Dioskurides in der Villa des Cicero und einem Mosaik des 4. Jhs. n. Chr. in Mytilene auf Lesbos sowie einem Mosaik des 3. Jhs. n. Chr. in Zeugma<sup>29</sup>.

Gleichzeitig wird aus dieser Zusammenstellung aber auch deutlich, dass die Maler und Mosaizisten mit den Kopien berühmter griechischer Gemälde genauso umgegangen sind, wie mit den Zusammenstellungen einzelner Bildmotive. Sie haben die Vorlagen teilweise gespiegelt, auseinandergezogen, die einzelnen Figuren versetzt, anders zusammengesetzt oder durch eigene Komponenten ergänzt.

Dies ist ein gattungsübergreifend zu beobachtendes Phänomen, so dass bisweilen nicht mehr zu entscheiden ist, ob einer tradierten Bildkomposition eine Skulpturengruppe oder ein Gemälde zugrundeliegt, wie beispielsweise der Gruppe des sich auf einen Satyr stützenden trunkenen Dionysos, der sowohl in der Malerei und auf Mosaiken, als auch in der Rundplastik sowie auf Bronzereliefs und Gemmen überliefert ist<sup>30</sup>.

Fasst man die Beobachtungen zu den Musterbüchern noch einmal zusammen, so lässt sich folgendes festhalten: Es gab verschiedene Arten von Musterbüchern:

1. Vorlagekartons nur mit Mustern, Ornamenten und Bordüren etc., die z. B. für Textilien verwendet wurden; solche Webkartons sind erhalten.

2. Musterbücher mit figürlichen Einzelmotiven, Eroten, Tieren etc. und wahrscheinlich auch mit Schirmkandelabern und Architekturdetails. Einen Eindruck davon vermitteln die Tierskizzen auf dem Artemidoros-Papyrus.

3. Kompendien mit Skizzen von szenischen Zusammenhängen: z.B. mythologische Szenen, Kampf- oder Jagdbilder, Bilder mit Eroten, bukolische Themen, dionysische Bilder, sakro-idyllische Motive, Stilleben.

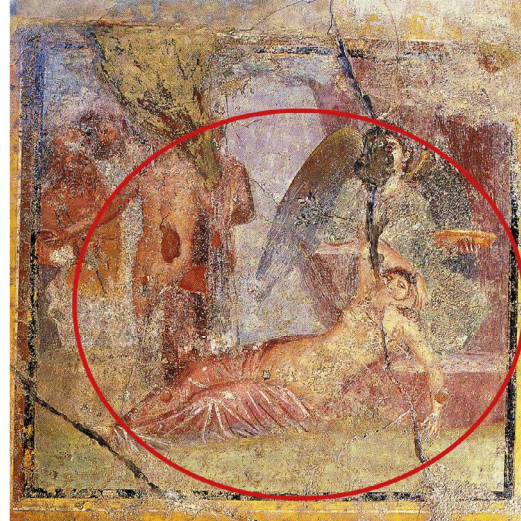
4. Zusammenstellungen mit getreuen Kopien berühmter griechischer Bilder, die auch die Farbigekeit überliefern.

## Zephyros und Chloris



a

## Dionysos und Ariadne



b



c

Abb. 8: a) Zephyros und Chloris, Pompeji VI 10,9.11, Casa del Naviglio; b) Dionysos und Ariadne, Pompeji VI 16, 15, Casa del Ara Massima; c) Zephyros und Chloris, Stabia, Villa di Arianna.

Aus dieser Vielzahl an Vorlagen unterschiedlicher Art, die wohl immer wieder kopiert und weitergereicht wurden, konnten sich Künstler aller Genres reichsweit bedienen. Dabei entsprach es dem jeweiligen künstlerischen Selbstverständnis des Malers, Mosaizisten, Bildhauers, Toreuten oder Töpfers wie er die Vorlagen in seinem eigenen Stil umsetzte und die Bild-Bausteine miteinander kombinierte, so dass die individuelle künstlerische Ausführung eine jeweils andere Handschrift erkennen lässt. Die Musterbücher dienten als Inspirationsquelle für eigene, kreative Bilderfindungen.

Das Vorhandensein von Musterbüchern in der Antike ist nicht zu bezweifeln und widerspricht auch nicht der Vorstellung von der Genialität und Kreativität des antiken Künstlers. Die Benutzung von Musterbüchern hat keinen Einfluss auf individuelle künstlerische Leistungen und die stilistische Entwicklung der Kunstgattungen über die Jahrhunderte. Zudem benutzten die antiken Künstler neben den Musterbüchern in ihren Werkstätten nachweislich weitere technische Hilfsmittel, wie 1. Gipsabformungen von Skulpturen, 2. Schablonen für die technische Umsetzung von Mosaikemblemata, 3. Entwurfszeichnungen, nach denen die detaillierten Wanddekorationen umgesetzt wurden, wovon das Relief in Sens zeugt, das den Werkstattmeister mit einer solchen Entwurfsrolle zeigt<sup>31</sup>, 4. Tonabdrücke von Bronze- und Silberreliefs für die Terra Sigillata- und Lampenproduktion, 5. Hilfsmodelle aus Ton und Wachs, die innerhalb des Produktionsprozesses von Bronzeskulpturen unabdingbar sind.

Die Kombination aus Kopie, versatzstückartigem Einsetzen von Mustern, baukastenartigem Zusammensetzen der Bilder und Kompositionen bei gleichbleibendem, aber dem Zeitstil unterworfenen Grundschema stellt ein grundsätzliches Phänomen der griechisch-römischen Kunst dar.

### Anmerkungen

<sup>1</sup> Linfert 1972–1973, 76; Donderer 2005; Thomas 2016, 431–434.

<sup>2</sup> Ling 1991, 217–220.

<sup>3</sup> Bruneau 1984, 241.

<sup>4</sup> Dunbabin 1971, 52–65 bes. 58, 64 f.; Ling 1991, 219.

<sup>5</sup> So z.B. bei Schmidt-Colinet 2016, 132.

<sup>6</sup> Mulliez 2014, 165–166.

<sup>7</sup> Bruneau 1984, bes. 253–260.

<sup>8</sup> Stauffer 2008.

<sup>9</sup> Schmidt-Colinet 2016, 132.

<sup>10</sup> Vgl. z. B. Löwenstein 2015, 588 Abb. 157 mit dem Wirkkarton mit Eroten; Stauffer 2008, Kat. 24.

<sup>11</sup> Zenon-Papyrus 59665 in Kairo. Bruneau 1984, 244; Ling 1991, 217.

<sup>12</sup> Gallazzi u. a. 2008.

<sup>13</sup> Thomas 2016, 431–433 Abb. 48–57.

<sup>14</sup> Vgl. die Schirmkandelaberdetails aus Köln, Breite Str. mit der Dekoration aus Die. Thomas 2004, 656 Abb. 105; Boislève, Ronco 2016, 48–49 Abb. 11, 12.

<sup>15</sup> Bruneau 1984, 249.

<sup>16</sup> Pompeji, Casa dei Pittori al lavoro; Casa di M. Fabius Rufus, Raum 44, Sockelzone, PPM VII 1003, 1005.

<sup>17</sup> Thomas 2016, Abb. 48, 50.

<sup>18</sup> So herausgestellt von E. Thomas. Thomas 2004, 827 Abb. 4 und 7.

<sup>19</sup> Mulliez 2014, 165.

<sup>20</sup> Meisterwerke der Antike 1995, 145; ebd. 141.

- <sup>21</sup> Pompeji VI 16,7.38, Raum G, Ostwand. Seiler 1992, Abb. 173.  
<sup>22</sup> Lorenz 2008, 92–93 Abb. 18–19.  
<sup>23</sup> Baldassare u. a. 2002, 162–163.  
<sup>24</sup> Lorenz 2008, 115 Abb. 31; Federico 2017, 326 Abb. 2 d.  
<sup>25</sup> Lorenz 2008, 111–116.  
<sup>26</sup> Triclinium G, Westwand Mittelbild, Stemmer 1992, Abb. 179.  
<sup>27</sup> Donderer 2005, 64–65 Abb. 6, 7.  
<sup>28</sup> Donderer 2005, 59 Abb. 1; 63 Abb. 5.  
<sup>29</sup> Donderer 2005, 66–67 Abb. 8–10.  
<sup>30</sup> Thomas 2010.  
<sup>31</sup> Hierbei handelt es sich nicht um ein Musterbuch, wie Donderer assoziiert. Donderer 2005, 62–63.

### Bildnachweis

Abb. 1 a: nach: Schmidt-Colinet 2009, 788 Abb. 1. – Abb. 1 b: nach: J. Garbsch, B. Overbeck, Spätantike zwischen Heidentum und Christentum, Ausstellungskatalog München (München 1989) 189 Kat. 249. – Abb. 2. 4 b. 5 a. 8 c: Foto Thomas. – Abb. 3: nach: Gallazzi, Kramer, Settis 2008 Taf. 1. – Abb. 4 a: Detail aus: Boislève, Ronco 2016, 48 Abb. 11. – Abb. 5 b: nach: Boislève, Ronco 2016, 48 Abb. 11. – Abb. 6 a: nach: R. Aßkamp, M. Brouwer u. a. (Hrsg.), Luxus und Dekadenz, Ausstellungskatalog Haltern (Mainz 2007) 66 Abb. 2. – Abb. 6 b: Foto Rheinisches Bildarchiv Köln, Anja Wegner. – Abb. 7: nach: St. de Caro, The National Archaeological Museum of Naples (Neapel 1996) 154–155. – Abb. 8 a: nach: A. Varone, Pompeji (Paris 1996) 155. – Abb. 8 b: Stemmer 1992, Abb. 179.

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# Pittori e pitture tra l'Italia e le province occidentali

Irene Bragantini

Affrontare il tema dell'economia della produzione della pittura parietale nei contesti domestici di età romana – così come per altre classi di produzioni artigianali specializzate – rimane un compito per il quale le informazioni in nostro possesso sono ancora largamente insufficienti<sup>1</sup>. Per spiegare il modo in cui possa essersi prodotta la sorprendente diffusione di iconografie tra centri lontani che caratterizza la produzione figurativa del mondo romano il panel, organizzato da Renate Thomas, ripropone alla nostra attenzione il tema dei *Musterbücher*<sup>2</sup>. Riprendendo questo tema a partire da evidenze e contesti diversi ci possiamo chiedere – più in generale – con quali mezzi e in quali condizioni di produzione avvenga il necessario scambio di informazioni e conoscenze tra coloro che sono coinvolti nella produzione della pittura parietale: tra le diverse tipologie di artigiani, e tra artigiani e committenti. Una prima domanda – fondamentale – che credo ci dobbiamo porre è se questo scambio debba aver luogo sempre attraverso mezzi materiali, o se vogliamo invece concentrare la nostra attenzione anche su scambi di conoscenze di natura immateriale, tra persone<sup>3</sup>.

Per affrontare questo argomento, con una particolare attenzione a situazioni che rendono necessaria l'ipotesi di scambi di informazioni nella fase di produzione, propongo l'esempio dei quadri con Apollo e le Muse provenienti dal "Edificio del atrio" di Carthago Nova<sup>4</sup>. Il complesso occupa un'intera insula della città; le sue fasi iniziali si datano a età flavia<sup>5</sup> ed esso è destinato almeno in parte a pratiche sociali e conviviali di una corporazione connessa con il santuario isiaco dell'adiacente insula<sup>6</sup>.

In una fase la cui importanza nella vita del complesso è sottolineata e monumentalizzata dall'apposizione di una iscrizione dipinta con datazione consolare al 218<sup>7</sup>, sono stati riusati (probabilmente all'interno dello stesso edificio per il quale essi erano stati originariamente prodotti<sup>8</sup>) quattro quadri con Apollo e le Muse, ai quali penso possa convenire la datazione a età flavia proposta dagli scavatori per le prime fasi del complesso<sup>9</sup> (figg. 1-2).

Ancora più significativi delle condizioni di produzione della pittura in questo centro per la prima età imperiale sono alcuni frammenti di pittura rinvenuti nell'angolo NE del foro, in un riempimento di età tiberiana formato dalla demolizione di un precedente edificio ubicato nella stessa area (davanti alla facciata della curia) e pavimentato in opus sectile (figg. 3-4)<sup>10</sup>.

Carthago Nova, colonia probabilmente con Cesare, conosce nella prima età imperiale una importante fase monumentale, nel corso della quale si va strutturando la 'panoplia monumentale' della città romana. In questi stessi anni si costruisce nella città il teatro, databile agli ultimissimi anni del I sec.a C., la cui decorazione architettonica in marmo bianco è realizzata da maestranze urbane, spia di rapporti clientelari tra la colonia e la famiglia di Augusto, che possono ben spiegare l'arrivo di blocchi lavorati o (semi) lavorati e di maestranze<sup>11</sup>. Non credo che in questa fase di impianto si possa ipotizzare che esistano in loco pittori in grado di realizzare queste decorazioni, che pur nella





Fig. 1: Carthago Nova, 'Edificio del atrio', pittura con Apollo.

loro estrema frammentarietà dimostrano di inserirsi appieno nel modello decorativo centroitalico e che devono quindi con tutta probabilità essere state eseguite da artigiani provenienti da quelle aree. Né si deve dimenticare che queste pitture sono prodotte nell'ambito di importanti programmi decorativi di cantieri pubblici o comunque non limitati a una sola edilizia di tipo abitativo<sup>12</sup>.





Fig. 2: Carthago Nova, 'Edificio del atrio', pittura con Tersicore.

Ma come dobbiamo considerare questa evidenza, confrontandola con contesti delle stesse zone che presentano realtà ben diverse? A Carthago Nova si realizzano infatti anche rivestimenti parietali che attestano una tradizione completamente diversa per quanto riguarda la tecnica, i materiali impiegati e gli schemi iconografici, e la stessa



Fig. 3: Carthago Nova, frammenti di intonaco dallo scavo nell'angolo NE del foro.

situazione ritroviamo ad Augusta Emerita, rinvenimenti che alle studiose che si sono occupate di questi materiali che essi siano opera di un'unica struttura produttiva (fig. 5)<sup>13</sup>. Dobbiamo quindi immaginare che gli artigiani coinvolti si spostino tra le due colonie, che conoscono in età augustea importantissime fasi di edilizia monumentale<sup>14</sup>.

Credo quindi che la realizzazione di quadri (se non addirittura di un intero ciclo, solo in parte riusato) come quelli con Apollo e le Muse, o dei frammenti da scavo illustrati alle figg. 3-4, renda necessario supporre che arrivino a Carthago Nova maestranze italiche: ipotizzo quindi lo spostamento di artigiani, artigiani e maestranze con i quali saranno comunque state certamente attive anche figure 'locali'<sup>15</sup>.

L'aumento esponenziale dell'evidenza, dovuto a diffusi protocolli di scavo, documentazione e pubblicazione adottati soprattutto da alcune équipes francesi e spagnole, porta ulteriori conferme al quadro, già noto, di diffusa adesione al modello abitativo centroitalico, in particolare nelle province occidentali e nelle fasi di prima età imperiale<sup>16</sup>. Valga per tutti l'esempio della megalografia proveniente dal sito della Vetreria ad Arles<sup>17</sup>, ma ricordiamo anche che tra i frammenti di II stile dalla casa 6 della Hanghaus 2 di Efeso non sono stati evidenziati 'lokale Varianten und Vorlieben...und es scheint, als ob Malsysteme und Motive möglicherweise sogar gemeinsam mit den Ausführenden aus Italien kamen'<sup>18</sup>.

L'esempio di Arles dimostra però anche come i contesti meglio conservati e indagati non attestino soltanto la diffusione di schemi iconografici (ipoteticamente interpretabile grazie al modello dei Musterbücher). Quello che abbiamo di fronte qui è invece qualcosa di più e di diverso: la capacità di strutturare insiemi decorativi coerenti, all'interno di soluzioni planimetriche che presuppongono un uso sociale della casa e degli elementi che la caratterizzano, basato sul modello italico. Nelle aree provinciali vediamo dunque riproposti una globalità di elementi, che formano il sistema della decorazione domestica della società romana e – per quello che qui in particolare ci riguarda – la funzione della decorazione nella casa.





Fig. 4: Carthago Nova, frammenti di intonaco dallo scavo nell'angolo NE del foro.

In questa ricostruzione è necessario ricordare che le nostre testimonianze sono soprattutto da contesti domestici: una delle ragioni di questa sorprendente diffusione consiste infatti nell'adozione di un modello e di una ideologia abitativa basati sulla fondante e fondamentale funzione sociale ed economica della proprietà immobiliare e sulla ripresa del modello centroitalico.

Tra le caratteristiche che caratterizzano questo modello abitativo ricordiamo che i rivestimenti non presentano alcuna interruzione tra le superfici di soffitti, pareti e pavimenti. Dobbiamo considerare che questa 'scatola' – che ancora ci avvolge quando entriamo in un ambiente decorato – è il risultato del lavoro di artigiani diversi, che lavorano con tecniche e materiali diversi. Era dunque necessario un attento coordinamento e una stretta interazione tra gli artigiani, dal momento che per raggiungere il livello di qualità richiesto ciascuno di essi – stuccatori, pittori, pavimentari – doveva lavorare (entrando e rientrando nel cantiere) seguendo i tempi e i modi della sua tecnica<sup>19</sup>. Non credo che un effetto così attentamente e generalmente perseguito debba considerarsi casuale: al contrario, ritengo che esso rappresenti un aspetto importante della ideologia abitativa della società romana che potremmo considerare finalizzato a racchiudere il dominus e i suoi ospiti – sui quali è mirata e tarata la decorazione della casa – negli spazi dell'ospitalità.

Tra le figure coinvolte in queste operazioni dobbiamo dunque immaginare uno scambio di informazioni e conoscenze che presuppone anche scambi immateriali, capaci di un forte impatto sulle comunità locali interessate dal processo produttivo,



Fig. 5: Carthago Nova, frammenti con decorazione a rilievo dalla Calle Beatas.

tanto più se consideriamo che almeno in alcuni casi questo processo comportava la collaborazione tra figure di diversa origine e formazione, che si trovavano a operare insieme sul cantiere.

Più che alla semplice diffusione di iconografie, dovremo dunque in futuro allargare il nostro tema, riflettendo sull'impatto economico e sociale che nelle diverse aree provinciali può aver comportato l'arrivo di persone che portano con sé il bagaglio delle conoscenze materiali e delle tecniche necessarie a realizzare sistemi decorativi prodotti seguendo l'insieme del modello abitativo centroitalico, un modello che dobbiamo immaginare calato nella complessità dell'organizzazione del cantiere che esso presuppone.

Osservata nelle implicazioni delle sue caratteristiche produttive, piuttosto che sollecitata per cercarvi risposte a domande 'nostre', in qualche modo preformulate, credo che questa evidenza possa ancora essere indagata con convinzione: la diffusione dei sistemi decorativi centroitalici è infatti solo uno degli aspetti di un più generale e potente modo di produzione e realizzazione dell'apparato materiale che costruisce e realizza un determinato modo di vivere.

Una situazione così complessa si può dunque spiegare supponendo che per le prime testimonianze attestate nei diversi centri, insieme allo spostamento di committenti

dall'Italia ipotizzato da molti autori per queste prime fasi, avvenga anche uno spostamento di artigiani. L'insieme di queste considerazioni richiama la formula dei pittori itineranti, proposta da Alix Barbet a proposito delle pitture di Bilbilis e accolta come ipotesi interpretativa in molti contributi presentati al convegno AIPMA di Lausanne<sup>20</sup>.

Considerando il modo in cui la pittura è prodotta e la necessità della collaborazione tra diverse manualità, possiamo considerare questa una ipotesi valida? E come avrebbe potuto funzionare questo sistema? Credo che valga la pena di testare in maniera convinta questa ipotesi, adottando diverse metodologie di indagine adatte ai diversi contesti e alle diverse fasi del processo produttivo. Abbiamo infatti in questo caso la possibilità di discutere a partire da un'evidenza materiale, e questo ci può forse consentire di rinnovare l'approccio ad un problema (quello della diffusione delle iconografie) per il quale si stenta ancora a incontrare tra gli studiosi un consenso generalizzato<sup>21</sup>.

Lavorare sul modello della mobilità degli artigiani significa anche, e in primo luogo, chiedersi come concretamente potrebbe essersi realizzata questa mobilità, quali figure sociali o artigianali possano di volta in volta essere coinvolte in questi movimenti. Nel cercare di delineare il quadro metodologico entro il quale affrontare queste problematiche dovremo lasciar spazio a legami di natura sociale, che rivestono un ruolo anche nella committenza artistica. Tra committenze private e committenze pubbliche diversi possono essere infatti i modi di 'richiamare' artigiani dall'esterno, anche se nei centri provinciali dovremo supporre gli stessi personaggi attivi sulla scena pubblica e su quella privata. La natura e la funzione dell'edificio che ha ospitato, nella sua fase originaria e in quella di riuso, il ciclo con Apollo e le Muse sopra illustrato, conferisce a questo contesto un interesse supplementare, a causa della funzione sociale dei complessi connessi a particolari culti<sup>22</sup>.

L'arrivo di artigiani da fuori implica anche la necessità dell'approvvigionamento almeno in parte dei materiali al di fuori del loro luogo di produzione o del luogo di lavoro consueto per l'artigiano itinerante. Un contributo fondamentale per questi problemi può venire dunque dall'archeometria, grazie ad analisi mirate rivolte a identificare non solo i materiali, la provenienza e i modi della loro produzione, ma anche la loro granulometria e la loro presenza nei diversi strati. Dalla necessaria interazione con le figure locali coinvolte nel progetto deriva inoltre un complesso insieme di attività, alla cui comprensione possono dare un grande contributo i progetti di archeologia sperimentale attualmente in corso<sup>23</sup>.

Questi scambi e queste relazioni danno origine a passaggi materiali e immateriali di conoscenze tecniche e abilità, che hanno importanti ricadute economiche sia sul singolo che sulla comunità di appartenenza: fenomeno tipico è quello che definiamo genericamente di 'seconde generazioni', quando artigiani locali cominciano a produrre autonomamente per le committenze locali.

Tornando all'ipotesi 'Musterbücher', è chiaro comunque che si debba distinguere tra realtà diverse, e che figurazioni complesse richiedono certamente la predisposizione di un modello disegnativo da trasporre in parete. Così, nel fregio di caccia della tomba di Filippo, H. Brecolouki ha riconosciuto una serie di linee incise in corrispondenza delle

lance dei cacciatori, linee che interpreta come destinate a dirigere in maniera corretta le lance, senza escludere in via ipotetica che esse siano servite anche ad organizzare lo spazio pittorico<sup>24</sup>. Credo che queste linee incise abbiano avuto appunto questa funzione: realizzate in corrispondenza di aree secondarie ma facilmente individuabili della composizione, esse saranno servite a trasporre in parete una scena così complessa.

Ma forse l'unica vera 'novità' intorno a queste problematiche è costituita dal papiro di Artemidoro. Indipendentemente dall'acceso dibattito sulla sua autenticità<sup>25</sup>, la colta ricostruzione di Settis<sup>26</sup> propone alla nostra riflessione le diverse attività che si possono svolgere entro un contesto artigianale – inteso come struttura fisica, ma anche come struttura sociale del lavoro, nella quale operano fianco a fianco figure con diverse abilità e diversi compiti. Quale funzione può avere un 'libro di disegni' all'interno di una struttura di questo tipo, in cui si realizza anche la formazione di discepoli e apprendisti? Queste riflessioni ci aiutano a comprendere come sotto un unico 'ombrello', il 'cartone', si celino realtà e usi o funzioni diverse<sup>27</sup>. Ed è del resto solo nell'ambito di una più ampia riflessione sulla pratica del disegno nella cultura antica che la questione può essere riaffrontata, come invita a fare anche un grande storico delle arti come Pierre Gros, quando sottolinea l'importanza degli 'enjeux culturels' che questa discussione implica<sup>28</sup>.

Tornando alla riflessione sull'utilizzo di mezzi disegnativi nell'economia della produzione della pittura parietale romana, vorrei sottoporre alla riflessione un ultimo punto, sollecitata dal lavoro di quanti ipotizzano una serie di assi visivi che si intrecciano nell'impianto figurativo della casa romana. Non mi riferisco ai più semplici 'rhythms of recognition' e ai 'pictorial means' di cui ci parla Bettina Bergmann<sup>29</sup>: penso invece ad alcune ipotesi ricostruttive molto complesse, come quelle relative alla messa in scena della decorazione nella casa pompeiana di Octavius Quartio<sup>30</sup>. Si tratta di proposte giocate sulla ricostruzione di strategie volte a mettere in scena il teatro dell'ospitalità del dominus, che permettono di guidare l'ospite nel suo percorso tra casa e giardino, in modo che egli possa godere appieno di queste sorprendenti realizzazioni. Tali sofisticate ricostruzioni comportano una attenta pianificazione di tutti gli angoli visuali, che tenga conto dei percorsi planimetrici in connessione con l'insieme degli allestimenti decorativi. Per mezzo di quali dispositivi grafici esse potevano essere progettate, comunicate e realizzate sul cantiere? In che modo dunque poteva essere scambiata l'informazione tra colui che organizza la decorazione e i diversi attori coinvolti? Perché tutto questo funzioni dobbiamo infatti ipotizzare progetti attentamente elaborati e predisposti, in modo da poter essere altrettanto attentamente realizzati.

In conclusione, sarà ormai chiaro che a mio avviso nuove piste di indagine potrebbero essere proposte e percorse per affrontare problemi connessi all'economia della produzione della pittura romana, lavorando in primo luogo sui problemi posti sul tappeto dall'ipotesi della mobilità dei pittori. Ma anche una riflessione sui procedimenti disegnativi operanti in questa pratica artigianale potrebbe aiutarci a rappresentarcene in maniera più concreta i modi e le condizioni in cui essa vive e si realizza.

### Nota

<sup>1</sup> Harris 2015, 402; Flohr 2019.

<sup>2</sup> Thomas 2018, 776. Ringrazio Renate Thomas per il suo cortese invito a partecipare a questo panel.

<sup>3</sup> Morel 1995, 227–231 (citato da Blondé – Muller 2000, 303 nota 57; 305–307).

<sup>4</sup> Noguera et al. 2016a; Noguera et al. 2016b.

<sup>5</sup> Noguera et al. 2016a, 379–381.

<sup>6</sup> Noguera et al. 2016a, 386–387; Noguera et al. 2019.

<sup>7</sup> Noguera et al. 2017: [Imp(eratore) M(arco) A]urelio Antonino Pio Aug(usto) et Advento II co(n)s(ulibus).

<sup>8</sup> Pur non potendo naturalmente escludere la provenienza da un diverso edificio, credo che alla base di questa così significativa operazione vi possa essere anche la volontà di conservare la memoria dell'ambiente originario e delle funzioni che esso svolgeva all'interno del complesso.

<sup>9</sup> Bragantini 2016; Fernández Díaz et al. 2018. Lavoro realizzato nell'ambito del progetto di ricerca "Exemplum et spolia. El legado monumental de las capitales provinciales romanas de Hispania. Perduración, reutilización y transformación en Carthago Nova, Valentia y Lucentum (HAR2015-64386-C4-2-P)", finanziato dal Ministerio de Ciencia, Innovación y Universidades del governo spagnolo.

<sup>10</sup> Ringrazio J. M. Noguera, M. J. Madrid e tutta l'équipe per le informazioni preliminari relative allo scavo e per avermi consentito di prendere visione di questi materiali ancora in corso di scavo. Per una approfondita ricostruzione delle conoscenze relative all'area centrale della città, prima dei recenti e recentissimi interventi, cfr. Noguera et al. 2009.

<sup>11</sup> Ramallo 1999. Sulle fasi tardorepubblicane della città cfr. Ramallo et al. 2008.

<sup>12</sup> Fernández Díaz 2008, 461–470. Per i modelli decorativi della città 'in stretta relazione con quelli urbani', tra tarda età repubblicana e prima età imperiale, cfr. Noguera et al. 2009, 270–272.

<sup>13</sup> Fernández Díaz 2008, 432–439; Guiral 2014, 118–119; Fernández Díaz et al. (in preparazione).

<sup>14</sup> Ruiz Valderas 2017; Dupré 2004.

<sup>15</sup> Per capire come questi artigiani possano aver operato in aree la cui natura geologica metteva a loro disposizione – anche per gli strati preparatori – materiali diversi da quelli ai quali essi dovevano essere abituati, è necessario tener conto delle loro capacità: per una lunga tradizione, che affonda le sue radici nella pittura ellenistica della quale sono in certo modo eredi, essi sono in grado di manipolare abilmente colori e pigmenti per ottenerne gli effetti pittorici desiderati.

<sup>16</sup> Cfr. i contributi elencati in Bragantini 2018, 967 nota 15.

<sup>17</sup> Gli scavatori ipotizzano un atelier in arrivo dall'Italia: Boislève et al. 2017, 36.

<sup>18</sup> Tober 2014, 740.

<sup>19</sup> Cfr. la sequenza di operazioni descritta in Boislève et al. 2017, 22.

<sup>20</sup> Barbet 2007; Guiral 2014, 120–121. Cfr. gli interventi elencati in Bragantini 2018, 970 nota 30. Per la mobilità dei mosaicisti cfr. Darmon 2011.

<sup>21</sup> Il più fermo oppositore dell'ipotesi della circolazione di cartoni per la produzione musiva è stato Bruneau (Bruneau 1984 e 2000).

<sup>22</sup> Per il santuario isiaco dell'adiacente Insula II cfr. Noguera et al. 2019.



<sup>23</sup> Mulliez et al. 2017.

<sup>24</sup> Brecolouki 2006, 121; la studiosa cita lo stesso procedimento anche per la composizione floreale dell'anticamera della tomba delle Palmette a Lefkadia (Brecolouki 2006, 200–201) Per la trasposizione in parete di disegni preparatori cfr. Clarke 2013.

<sup>25</sup> Tra i numerosi contributi sull'argomento rimandiamo a Canfora 2008; Adornato 2016.

<sup>26</sup> Settis 2006.

<sup>27</sup> Come chiarisce già Bruneau 1984, 242–243; Bruneau 2000, 192–193. Moreno 1964–1965, 67, ipotizza l'utilizzo di cartoni per il mosaico di Pella con la caccia alla cerva.

<sup>28</sup> Gros 2016, 21.

<sup>29</sup> Bergmann 1999.

<sup>30</sup> Brutesco 2007 con i commenti di D. Fredrick, *ibidem*, su 'the rhetorical strategies of the garden' all'interno della stessa casa. Cfr. anche la comunicazione di D. Fredrick, *Secrets in the Garden: Vulnerability and Information Exchange in the House of Octavius Quartio* presentata al convegno *Hortus Inclusus*, British School Rome, 27–28 giugno 2017; Von Stackelberg 2014.

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Fig. 1–2: Foto J. L. Montero, *équipe Molinete*, cortesia di J. M. Noguera. – Fig. 3–4: I. Bragantini. – Fig. 5: A. Fernandez.

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# Paesaggi nilotici e pigmei nella produzione di un'officina pittorica di IV Stile a Pompei

Clelia Sbroli

Lo studio dei paesaggi nilotici di ambito pompeiano nasce nel quadro del progetto M.A.C.H.<sup>1</sup>, in seno al quale la porzione urbana VIII, 2, 17–21, meglio nota come Terme del Sarno, è stata oggetto di una ricerca multidisciplinare volta all'analisi integrata degli aspetti ingegneristico-strutturali dell'edificio, delle proprietà petrografiche e mineralogiche dei materiali e all'indagine archeologica e storico-artistica delle occorrenze.

In maniera specifica, i rivestimenti parietali, intonaci e stucchi policromi, conservati all'interno dell'ambiente del *frigidarium* sono stati analizzati e messi in relazione con la produzione pittorica ascrivibile al cosiddetto IV Stile, nell'ottica di individuare, attraverso lo studio della struttura compositiva e dei cosiddetti *motivi-firma*<sup>2</sup>, specificità stilistiche e tecniche esecutive riconducibili all'attività di una determinata officina pittorica. Due contesti in particolare, il Tempio di Iside e la Casa dei Vettii, di qualità eccezionale e opera delle medesime maestranze, hanno restituito convincenti paralleli<sup>3</sup>, suggerendo anche per il *balneum* l'attribuzione alla stessa bottega di *pictores*<sup>4</sup>.

Notevoli corrispondenze sono ulteriormente emerse dall'analisi dei paesaggi ad ambientazione nilotica – i quadretti 1.2 e 1.10 dall'ambulacro del Tempio di Iside e il fregio lungo i perimetrali Nord e Ovest del *frigidarium* del Sarno, al di sopra della vasca ad immersione – ai quali è stato associato, per affinità tematica e stilistica, anche lo scorcio nilotico dalla Casa dei Pigmei (IX, 5, 9).

Procedendo infatti ad una puntuale comparazione dell'impianto compositivo e degli elementi messi in opera, quali flora, fauna, soggetti umani e strutture edilizie, è stato possibile riconoscere significative ricorrenze: il paesaggio è costruito secondo una analoga concezione spaziale e luministica; i pigmei sono tratteggiati in egual maniera; la rotondità dei corpi è in tutti i casi suggerita attraverso le medesime modalità esecutive e i soggetti tipici del genere, espressi tramite scelte iconografie ricorrenti, sono disseminati nei diversi livelli della composizione secondo criteri ben definiti e riconoscibili.

Le varie sfumature, in termini di gusto narrativo e contenuto, che connotano le scene fluviali, paiono invero essere in assoluta coerenza con il differente portato semantico di cui si carica il soggetto nilotico all'interno dei diversi complessi. Se infatti nel Tempio di Iside l'inserimento dei quadretti ha il solo scopo di caratterizzare in senso egizio la decorazione dell'edificio<sup>5</sup>, al contrario, all'interno del *balneum*, luogo nel quale si poteva incorrere in malocchi<sup>6</sup>, la presenza del fregio nilotico assolve una funzione comica e soprattutto apotropaica<sup>7</sup>. La comprensione dei significati sottesi all'adozione del tema nella Casa dei Pigmei, essendo un contesto privato, appare

invece assai difficile, in quanto potrebbe trattarsi di una scelta di gusto personale, di volontà di autorappresentazione o, più verosimilmente, di un intrecciato insieme di tutti questi fattori.

Dalle osservazioni brevemente avanzate emerge dunque la possibilità di identificare l'attività della famosa bottega di pittori nota come Officina dei Vettii, la quale sembra mettere in opera, a partire dal repertorio iconografico a disposizione, e all'occorrenza mitigando i tratti più propriamente romani del genere, i caratteri tipici del rivo egizio, di volta in volta combinati e variati in funzione dello spazio decorativo, del contesto di destinazione e delle esigenze della variegata committenza.

### Nota

<sup>1</sup> Multidisciplinary methodological Approaches of Cultural Heritage, promosso dall'Università di Padova in convenzione con il Parco Archeologico di Pompei.

<sup>2</sup> Morelli 1891;1893.

<sup>3</sup> Già D. Esposito aveva identificato all'interno dell'atrio del medesimo complesso l'operato dell'Officina dei Vettii (Esposito 2009, 107–109).

<sup>4</sup> Per una più estesa trattazione si rimanda a Salvadori –Sbrolli IP.

<sup>5</sup> Sulla base di quanto sostenuto da E. Moormann: “quasi tutte le pitture riproducono soggetti che si trovano anche altrove a Pompei negli anni tra il 62 e il 79 d.C. e, pur contenendo elementi egizi, presentano un contenuto compiutamente “laico” [...] Si potrebbe pensare che i committenti abbiano fatto vedere dei modelli egizi agli artisti, o almeno abbiano spiegato loro quali elementi egizi desideravano includere per aggiungere quel tocco caratterizzante all'insieme” (Moorman 2016, 105–119).

<sup>6</sup> Dunbabin 1989, 6–46.

<sup>7</sup> Clarke 2005, 155–169; Salvadori et al. 2018.

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M. Salvadori – P. Baronio – C. Boschetti – C. Sbrolli, *Le Terme del Sarno a Pompei (VIII, 2, 17)*, nuove indagini per la rilettura e la ricomposizione dei sistemi parietali, in: *Peintures et stucs d'époque romaine. Études toichographologiques*, Actes du 29<sup>e</sup> colloque de l'AFPMA (Louvres – Val d'Oise, 18–19 novembre 2016), *Pictor* 7, Bordeaux, 207–225.





# Roman Wall Painting under the Flavians: Continuation or New Developments?

Domenico Esposito – Eric M. Moormann

## Introduction

In the study of the Fourth Style, the distinction of determinate phases within the sixty years of its existence has been a much-discussed question.<sup>1</sup> The Fourth Style as such is a rather unpractical indication of an era with bricolage of elements from the preceding, better defined Second and Third Styles. It is a combination of architectural schemes and their derivatives, panel decorations, fine and gross decorative motifs like broderies, and the application of mock marble veneer, mainly in the lower zone. The origin of this mixture seems to be found in the late Third Style, so indicated, since it comprises more heavily adorned decorative systems like that of the House of M. Lucretius Fronto. Some scholars have tried to connect the invention of the Fourth Style – and phases within it – with the person of a determinate emperor, but these attempts have failed, as is clear from the chronological problems involved. Thus, Nero has been advocated by Karl Schefold, but we can find examples from an earlier stage. What is more, the Golden House of Nero, the only complex of decorations surely connected with this emperor and dated between AD 64 and 68, shows a broad array of possibilities that have predecessors in decorative complexes in the Campanian cities.<sup>2</sup> The same is true for the Flavians: no specific historical occasion can be connected with a complex of firmly dated murals. The poor remains of murals in the Domus Flavia and the Domus Augustana do not give us any clue as to the development of the Fourth Style.

Therefore, we want to take a closer look at the more or less firmly dated decorations in Rome, Ostia, and the area buried by Vesuvius. This has been done in some instances, but not in a systematic way. Although the format of this contribution is limited, we hope to give a new outlook upon this matter.

## Flavian Paintings in Rome and its Environment

### Nero's Golden House in the post-Neronian Period

The Golden House was not immediately abandoned after Nero's suicide in the summer of 68. We do not know who were the new inhabitants (or at least users), but these people completed a couple of rooms in which real marble veneer should have been installed under Nero (e.g. room 71), and decorated other rooms.<sup>3</sup> The *terminus ante quem* is the construction of Trajan's Baths which started in AD 104. The crucially situated room 116 got a complete painted decoration as well as a tessellated mosaic



Fig. 1: Rome, Golden House, room 42, vault of secondary decoration.

floor: they differ from the other decorations in this area of the building, lacking marble veneer and *opus sectile* flooring. The murals contain an elaborate Third-Style like articulation into panels separated by *aediculae* on black on top of a red dado.<sup>4</sup> Probably because of these miniature adornments, the decoration was dated earlier in the past. They look like the fine paintings of Workshop C in the western wing of the edifice. Two rooms, 42 and 48, were partly redecorated due to the insertion of a mezzanine. Room 42 shows a fine decoration in red on a yellow ground, but here there is no possible doubt that it is late, since it cuts the old monumental façade of workshop A.<sup>5</sup> As in 116, there are *aediculae* separating panels, but the ornaments look thicker and more roughly executed than those in 116. The vault has a central





Fig. 2: Rome, Domus Flavia, room 334, vault.

composition familiar from other Neronian rooms; it looks more refined than the walls and might have been made by a more skillful painter than the wall decorator. In room 48 we observe the same difference: simple *aediculae* between almost empty panels on a white ground and delicately executed vaults.<sup>6</sup> Finally, there is room 71, where a white panel decoration fills the lacuna of the not-yet-applied marble dado, which is situated below a stucco façade of workshop A.<sup>7</sup> The presence of small birds as decorative motifs has given this room the common name of Sala degli uccelli, and these ornaments have brought up the suggestion that the room was painted by no less than Famulus himself. Yet, we recognize the miniature architectures and broidery-like garlands encountered in the other rooms as well. In sum, despite the simplicity of the decorative patterns in rooms 42, 48, 71, and 116, the ornaments applied were rather refined and would later give the idea that they belonged to

Nero's murals. Probably those in the dado of room 24 (yellow on white)<sup>8</sup> were also subtle. The fact that in rooms 42 and 48 two painters or small groups of painters have subdivided their work demonstrates that the post-Neronian patrons had a certain ambition as well as the need for speed to complete the requested decorations.

An exception to these observations seems to be constituted by a partially preserved decoration in the staircase 38.<sup>9</sup> The few remains show, at least, elements like candelabra, columns, and a round shield, which are more heavily rendered than the other Flavian murals within the pavilion.

### **Domus Flavia-Augustana**

The few remains of murals and ceiling decorations show extremely simple, but not badly made decorations adorning the vaults in yellow and red on white ground in rooms 334 and 340. Since these are rather secondary rooms, such as latrine 340, they received little light and should not be heavily adorned.<sup>10</sup> Real marble must have clad the walls, after the example of Nero's Golden House.<sup>11</sup> The vault of room 334 has a central composition of a tondo occupied by a floating woman with quarter circles marking the corners, all in red thin garlands painted on a plain white ground. This composition, indeed, closely resembles the decoration of room 42 in the Golden House, where a similar scheme with central tondo and quarts of circles adorn a yellow ground. The little known of the ceiling in room 340 shows rectangular spaces surrounded by thin red lines, sometimes enlivened by yellow fantastical forms and yellow-red *cornucopiae*. Thin garlands hang from the framework. These line plays recall the decoration in the lower part of room 71.

### **The Cityscape Painting on the Oppius**

The cityscape found on the Oppius has raised a severe debate regarding its context, function, chronology, and iconography.<sup>12</sup> Since at the beginning the location was not yet clearly established, the chronology oscillated between Neronian and Flavian. As in the Golden House, the construction of the Baths of Trajan constitutes a *terminus ante quem*. While L. Bouke van der Meer recognized an image of the ideal Rome projected as Neropolis by Nero and, consequently, dated it to the age of Nero and attributed it to his Golden House,<sup>13</sup> Eugenio La Rocca has seen it as an adornment of the *praefectura Urbis* erected under Vespasian. Its 'tecnica pittorica [...] compendaria'<sup>14</sup> and topic are unique and there cannot be found a real parallel from, say, the second half of the first century AD. La Rocca's connection with ancient chorography is plausible.<sup>15</sup> Finally, in an essay on ideal towns and their micro-imitations in villas like the Golden House, Hadrian's villa in Tivoli, and Piazza Armerina, Mario Torelli interpreted the image as a depiction of all the elements necessary to accommodate the inhabitants of a town.<sup>16</sup> Since we are not discussing the iconography, but are trying to articulate some ideas concerning the Flavian way of decorating, we can only conclude that the cityscape has no real parallels as of yet and stylistically cannot be compared to other late first-century decorations.



Fig. 3: Pompeii, House of Pinarius Cerialis, room a, Wall 'stile a facciate'.

### The House of Via Genova

In 1933, during construction work for a public fire department, some rooms of a *domus* were found, one of them having white-ground paintings with fine ornaments and thin architectures. Water colors were made and some parts were stripped and brought to the Antiquarium Comunale on the Celio.<sup>17</sup> Only a few colors (red, reddish brown, black, and green) are used to compose the aediculae which separate the fields on top of a tripartite dado. The ornamental borders within the fields show a





Fig. 4: Pompeii, House of Vettii, Peristyle I, Decoration with Panel system.

mix of vegetal and fantastical elements. The center of the panels has vignettes with landscapes. Although the decoration is modest, it displays a certain pictorial quality and elegance that look like the white-ground murals in Nero's Golden House. If we look more closely, they correspond to those applied after Nero's death in room 71. The connection with the decoration in the Golden House was made in previous studies, without giving exact parallels. If the lead water fistula found here really belongs to this house, it can be ascribed to a man connected with the Flavians: Titus Flavius Salinator.<sup>18</sup> If this relationship is likely and substantiates the area's topography, the paintings have a secure date and as a result are valuable for the study of Flavian painting in Rome.<sup>19</sup>

### Flavian Decorations in Ostia

Ostia has yielded significant material prior to that known from its second-century boom as a harbor town. Fourth-Style fragments stem from recent excavations and investigations, as well as from earlier found materials kept in depot.<sup>20</sup> A rather heavily colored scheme is that from a house under the 'Taberne Finestrate' with a sort of *Prunkfassade* similar to those in the ala of the House of the Great Hunt in Pompeii. Its dating is not secure.<sup>21</sup> Other fragments come from the 1975 excavation within the Caseggiato dei Lottatori. Here, we see a flattish, Third Style-like mural system, with





Fig. 5: Herculaneum, House of 'Gran Portale', room 6, monochrome wall.

red panels separated by black spaces occupied by simple aediculae. The dado presents some yellow plants on a black ground. They are similar to the red decoration in the Temple of Bona Dea, partly applied in the first half of the first century AD.<sup>22</sup> We would like to suggest a comparison with the simple and closed systems in the Golden House discussed before.

All in all, Rome and its neighborhood offer little material, and the murals we encounter are of a simple nature, characterized by panels enlivened by sections of architectural systems (used previously as well) and tiny adornments. This would imply that one would consider the Fourth Style under the Flavians in Rome as a return to Third-Style systems, with a strong stress laid on ornamentation on top of monochrome facings.

### Flavian Paintings in Pompeii and Herculaneum

As said above, it has been argued that the Fourth Style was an invention made at Nero's court in Rome. Given the fact that wall decorations made according to this fashion are known from earlier monuments, especially in Pompeii, this assumption is unrealistic.<sup>23</sup> Some scholars have tried to distinguish between Neronian and Flavian painting.<sup>24</sup> The Flavian decoration would be more 'baroque' and rich with lavish elements. However,



Fig. 6: Pompeii, House of Dioscuri, room 46, example of a preparatory layer for a (stripped) marble veneer.

the mature Fourth Style, which is the late Neronian phase, as we can see in the first instance in Nero's Golden House, also displays a wide array of possibilities. Many shapes encountered in this palace – ornamental façades, panel decorations, *aediculae* and parts of them subdividing panel systems, repetitive patterns, embroideries – are found in buildings elsewhere in more or less the same time.<sup>25</sup> Yet, the lack of firm chronological criteria for the latter group of monuments makes such an assumption rather shaky.

To better understand the nature of the Fourth Style we have to read it as a double process of continuity with and redevelopment of the previous decorative fashions (so-called Second and Third Styles). As stated by Mariette de Vos, the Fourth Style is eclectic: that means that the new decorative fashion combines and renews at the same time all the formal and decorative solutions proposed in the past Second and Third Styles.<sup>26</sup> As a consequence of this process it is very difficult to define chronological distinctions between the fine decorated panel-systems and the heavy architectural systems imitating complex façades and megalographies.

In the Vesuvian area, the few dated complexes comprise the uncompleted decorations in various houses, such as the House of the Painters at Work in Pompeii. An extraordinary case is that of stamps of datable coins in the wet plaster of the atrium in the House of the Old Hunt in Pompeii.<sup>27</sup>

A group of heavily adorned decorations in Herculaneum, like the public buildings of the *Augusteum* and the unfinished *Aedes Augustalium*, form a Flavian set.<sup>28</sup> Here, architectural elements are plastically rendered, there are vistas through open windows, and the color scheme is abundant. Nevertheless, even firmly dated walls do not yet help us to define different style phases very well within the Fourth Style.

Experts have to rely on stylistic and formal associations, which often are rather arbitrary and subject to connoisseur-like estimations. Yet, the paintings attributed to this latter phase are similar to the preceding decorations, albeit richer and, especially in respect to the architectural elements, more complicated. Wallpaper patterns and marbling are present to a larger extent than before.

In Pompeii, between late fifties and AD 79, we can recognize two painters' workshops that decorated the major public buildings and private houses within the town: the Vettii Workshop and the Via di Castricio Workshop.<sup>29</sup> The distribution map of the activity of each painters' workshop in Pompeii shows an interesting pattern. The Vettii workshop seems to be favored by the members of the local élite and owners of the richest houses of the town, as well as the patrons who commissioned decorations in all the most important public buildings. The simpler workshop of Via di Castricio was favored by more modest patrons or used for the secondary rooms of rich houses.

Looking at the production of wall painting in this period, however, we have to keep in mind the socio-political status and economic possibilities of the patrons on the one hand and the commitment and technical capacities of the painters on the other. In Pompeii, the socio-economic interaction between patrons and painters influenced the originality of wall painting, but also stimulated processes of emulation or banal imitation between different decorative systems. At the same time, we can recognize cross-sections between public and private contexts or low and high quality of paintings, reflecting the needs and economic possibilities of the patrons and technical capacities of the painters.<sup>30</sup>

Furthermore, the examples of Pompeii and Herculaneum demonstrate that painters' workshops were organized as big businesses, run by *redemptores*, perhaps employed by socially and politically influential *patroni*.<sup>31</sup> Since they were large affairs, these workshops used teams of numerous decorators capable either of working together on the site of a large public building or separately at multiple sites. At a local level, these workshops were able to control large parts of the market, and to continually secure new commissions. More rarely they were able to function on a regional or inter-regional basis.

Another point brought forward is that the Fourth Style would show a certain degree of neglecting pictorial qualities and is artistically less convincing than its predecessor; this opinion started with Mau.<sup>32</sup> A strong impetus to find this fashion below good taste comes from Paul Zanker's 1979 influential article on the imitation of villa culture of the late Republican period in the Vespasian era in Pompeii. He



argued that the predecessors had good taste, whereas the followers were nothing but tasteless *nouveaux riches*.<sup>33</sup> Apart from the fact that, in a technical sense, Fourth-Style paintings are not worse (or better) than the preceding ones, this negative estimation reflects a scarcely enlightening assessment of the Neronian and Flavian period as a whole. These intimations seem strongly influenced by the negative image of the notoriously badly esteemed emperors Nero and Domitian rather than based on a meticulous analysis of their era's culture.

However, the archaeological evidence from the Vesuvian towns, particularly from the villa-like *domus* at Herculaneum, helps us to better define the spread of luxury and the choices made by the patrons to increase the expenditure of luxury in their houses and villas. Many scholars stated that the quality of panel paintings in Herculaneum is largely rough. They explain this circumstance as the result of the minor interest of the patrons for panel paintings. Although some evidence seems to corroborate this hypothesis, at the same time we observe the remarkably high quality and innovative character of the big panel pictures of the aforementioned *Augusteum* of Herculaneum. In that sense, the Fourth Style is not neglecting pictorial qualities at all.

In the large houses of Herculaneum, it is possible to recognize other forms of luxury expenditure than is expressed through the wall paintings as well as through other media. The decorative systems show very fine and complex architectural frames, with vanishing pavilions and different levels of perspective.

Monochrome walls (in blue, green, red and black) and mock marble veneer are more in fashion than elsewhere. In contrast with the strong monochromatic surfaces of the walls, the large use of colored marbles for floors is attested; in the richest houses, such as the House of the Stags, entire rooms were lavishly decorated with marbles. At the same time, marble *monochromata* or Attic reliefs were used as mythological wall decorations to replace the normal panel paintings. This trend seems to be confirmed by the large diffusion of marble imitation in the 'traditional' wall paintings and by the increasing use of marble veneer on the walls as well. The two appearances of marble and marbling show a similar development of taste, that is the wish to have the motif of marble as a conspicuous part of house decoration.<sup>34</sup>

## Conclusions

The material presented here demonstrates both a quantitative and qualitative distortion between Rome and Campania. In Rome, the few instances known stem from complexes connected with the Flavian dynasty, but are surely not representative of the most important rooms within imperial residences. The murals are simple and not expensive if we look at the use of pigments and complicated pictorial schemes, but the ornamental parts do not lack a certain degree of pictorial quality. If we look

at nearby Ostia, the problem is that we have almost nothing but fragments from debris layers, which are partly reconstructed and show more heavily colored wall systems that are not much different from those in Campania. There might even be a bias of the abundant Campanian material, which has made the reconstructions as they are.

As to Campania, there are much more data, although the distinction within the material from after the 62/63 earthquake cannot precisely be subdivided into Neronian and Flavian groups or categories. Yet, the cases presented show the wide array of possibilities at hand among the painters' studios in the Campanian towns of the time.

Therefore, it seems justified to conclude that the Flavian decorations differed rather in subtle details than in composition schemes from previous Fourth-Style decorations. The decorative systems are variegated and venture plays with architectural and ornamental devices in a fantastic realm of possibilities. There must have been enough skill and inspiration among the painters to vary the schemes and ornamental elements they disposed of.

If we look at the economic demand, it is not yet the moment to ban paintings from important places within public, sacral, and private buildings. However, the use of marble, begun under Nero at a great scale, gradually takes over the domain of decorating principal rooms. Therefore, as said, paintings remain the dominating feature to decorate interiors of all classes of buildings. Pompeii and Herculaneum prove the existence of different – but also similar – levels within temples, public buildings, and residences, the latter varying from small to big complexes.

### Notes

<sup>1</sup> See Thomas 1995; Strocka 1996; Esposito 2009; Bragantini 2014; Ling 2014.

<sup>2</sup> See for an overview of this discussion, the authors quoted in note 1. See also Meyboom – Moormann 2013 on Nero and the Fourth Style.

<sup>3</sup> Meyboom – Moormann 2013, I, 96: rooms 7–16 (almost nothing preserved), 19 (lararium painting), 24, 26, 38, 42, 48, 49, 50, 62, 71, and 116. On what follows, see the remarks in this work.

<sup>4</sup> Meyboom – Moormann 2013, I, 96, 225–226; II, 150–153.

<sup>5</sup> Meyboom – Moormann 2013, I, 96, 170–172; II, 53–59.

<sup>6</sup> Meyboom – Moormann 2013, I, 96, 175–176; II, 66–69. As to the vaults we must keep in mind that we only possess 18th-century documents which may be embellished versions rather than entirely trustworthy copies. Yet the detailed articulation does not differ much from the now-lost original situation.

<sup>7</sup> Meyboom – Moormann 2013, I, 96, 189–190; II, 92–95.

<sup>8</sup> Meyboom – Moormann 2013, I, 96, 152–153; II, 24.

<sup>9</sup> Meyboom – Moormann 2013, I, 96, 167–168; II, 50.

<sup>10</sup> Cf. the plan in Sojc 2012, fig. 7. On the paintings: Sojc 2012, 23, figs. 10 (room 334) and 11 (room 340). For 340 as a latrine: Sojc 2012, 23; J. Pflug in: Sojc 2012, 57; A. Schmölder-Veit, *ibidem* 206–208 (Hadrianic intervention).

<sup>11</sup> Here we take up Sojc's (2012, 23, note 68) suggestion that a comparative study should be made of the murals in this building and those of the post-Neronian phase in the Golden House.

<sup>12</sup> For the *editio princeps* of this painting found in 1998, see Caruso – Volpe 1998. See Van der Meer 1998 for a summa of the first reactions in press and oral communications. Caruso and Volpe consider the wall and its decorations as part of a public building from the Flavian era.

<sup>13</sup> Van Der Meer 1998.

<sup>14</sup> La Rocca 2000, 59. La Rocca 2008. See also Marchi – Rotondi 2010.

<sup>15</sup> La Rocca 2000, 63 and La Rocca 2008.

<sup>16</sup> Torelli 2006.

<sup>17</sup> Cima di Puolo 1993. On the excavations, see De Caprariis 1988, 20–29.

<sup>18</sup> CIL XV 7452. See De Caprariis 1988, 27; W. Eck, *LTUR* 2 (1995) 103. On the topography of the Flavians in this area, see most recently Moormann 2018.

<sup>19</sup> The wall structures in *opus reticulatum* lined by *opus latericium* sections in fine brick work are visible on the water colors and substantiate a Flavian dating (Cima di Puolo 1993, 264–265, figs 94–95).

<sup>20</sup> Falzone 2017, 338–339, fig. 4: material from the Insula of the viridarium. The depicted fragments, however, seem to us rather typical for the Second Style and are comparable to the inferior cubiculum and oecus 13 of the House of Augustus (Tomei 2014, plate after p. 164, pls. XXX–XXXVIII).

<sup>21</sup> Conte et al. 2017, 345–346, fig. 2; Falzone 2018, 95–96, fig. 8.

<sup>22</sup> Marano 2017, fig. 2 (reconstruction); Falzone 2018, 95 (same reconstruction).

<sup>23</sup> Thomas 1995, 79; Meyboom – Moormann 2013, 23–24; Bragantini 2011.

<sup>24</sup> E.g. Thomas 1995, 136–166; Stročka 2010; cf. Esposito 2014, 151–152.

<sup>25</sup> See the analysis of Pompeian decorations in Thomas 1995, 134–136; Bragantini 2014 and 2019.

<sup>26</sup> De Vos 1981.

<sup>27</sup> Allison – Sear 2002, 83, figs 263–271; cf. Thomas 1995, 151–152.

<sup>28</sup> Moormann 2011, 119–137; Esposito 2014, 45; for houses *ibidem*, 158–163.

<sup>29</sup> De Vos (1981) 'discovered' the Via di Casticio workshop. See now Esposito 2009, 49–132, esp. 57; cf. Moormann 2011, 149–162, on this workshop's paintings in the Temple of Isis.

<sup>30</sup> Bragantini 2004, 2010, 2014 and 2019.

<sup>31</sup> Esposito 2017.

<sup>32</sup> Mau 1882. Also Ling 2014 speaks about a decline of quality.

<sup>33</sup> Zanker 1979; also in later publications.

<sup>34</sup> See also Van de Liefvoort 2016 on this juxtaposition.

## Image Credits

Fig. 1: after Meyboom – Moormann 2013, II, fig. 42.12. – Fig. 2: courtesy of Natasja Sojc. – Fig. 3–6: courtesy of Ministero per i Beni e le Attività Culturali.



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# Painters of Ostia: Reconstructing Production Dynamics and Craftsmanship of Ostian Wall Paintings

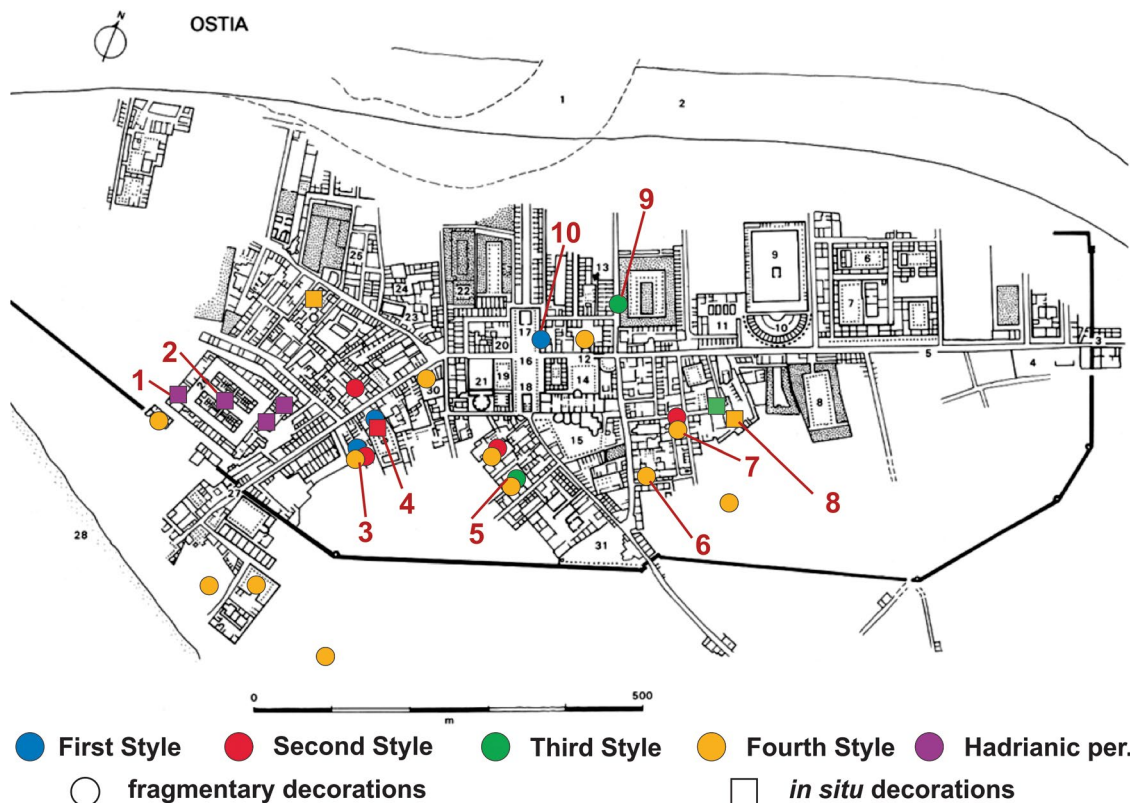
Stella Falzone – Martina Marano – Paolo Tomassini

## Abstract

The painted decorations of Ostia are known by all for their excellent state of preservation and for the importance they represent as one of the only testimonies of ancient wall painting from the 2<sup>nd</sup> to the 5<sup>th</sup> c. AD. However, they have surprisingly never been studied through a technical approach, using them as medium to understand the production dynamics of the workshops. The Hadrianic complex of the *Casa a Giardino* constitutes an excellent case study, where we can follow the work of local ateliers, working together with the builders and replicating the same models in a very short span of time. Recent studies have shown a very different situation for previous periods, in the Republican and Early-Imperial times, where local workshops of a very high level operated in various points of the city, painting decorations worthy of the richest domus in Rome. Between the 1<sup>st</sup> and the 2<sup>nd</sup> c. AD, the status itself of wall painting changed, which was well reflected in Ostia, and which saw a radical change in the technique and the quality of the decorations. This paper will try to understand the reasons for that changing and to propose a first synthesis of the work carried out by the *Centro Studi Pittura Ostiense* in the last years, trying to reconstruct the work of Ostian painters through time.

This paper presents the first results of a research still in progress concerning the dynamics of production and craftsmanship in the Wall Paintings of Ostia, conducted by the *Université catholique de Louvain*, the *Ecole française de Rome*, the *Österreichische Akademie der Wissenschaften* and the *Centro Studi Pittura Romana Ostiense*, in collaboration with the *Istituto per la Conservazione e la Valorizzazione dei Beni Culturali* in Florence and the *Parco Archeologico di Ostia Antica*.<sup>1</sup>

The purpose of this project is to reconstruct the historical development of the wall paintings of Ostia through time thanks to a technical, material, and archaeological approach, and to identify the changes in the manner of painting. It aims to trace the evolution of techniques and workshop practices in the city. The richness and the longevity of the testimonies in the harbour of Rome allow for a complete diachronic study, embracing the pictorial production of an entire city from the 2<sup>nd</sup> c. BC to the 5<sup>th</sup> c. AD. In this paper, we will focus on the changes between the Republican period and the 2<sup>nd</sup> c. AD, considering both *in situ* and fragmentary paintings (fig. 1). We have combined three different parameters of analysis: the study of the motifs and schemes; the study of the techniques of production coupled with the identification of the raw materials; and the analysis of the architectural context. A fundamental contribution to this study



1. Insula delle Ierodule ; 2. Case a Giardino ; 3. C. delle Taberne Finestrate ; 4. Domus dei Bucrani ; 5. Terme Bizantine  
6. V, II, 2 ; 7. C. dei Lottatori ; 8. Santuario della Bona Dea ; 9. Portico delle Corporazioni ; 10. Insula di Giove e Ganimede

Fig. 1: Ostia, map of the city with indication of paintings mentioned in the text.

is given by the archaeometrical analyses, which have never been performed on such a large scale in Ostia. The analyses were carried out by Susanna Bracci and Emma Cantisani, from the *Istituto per la Conservazione e la Valorizzazione dei Beni Culturali*, an institution of Florence attached to the *Consiglio Nazionale delle Ricerche*. Several samples from different contexts were analysed with X-Ray Fluorescence (XRF), Fiber-Optic Reflectance Spectrometry (FORS), and Visible Induced Luminescence (VIL). Petrographic analyses in thin section were also carried out in order to identify the components of the pigments and the mortar layers. Within the corpus of the wall paintings of Ostia, the examples dating from the 2<sup>nd</sup> c. AD onwards are the most known and commonly studied.<sup>2</sup> Earlier examples are rarely taken into consideration because they are less preserved, at least in the general opinion. In fact, recent studies of the *Centro Studi Pittura Romana Ostiense* on the fragmentary paintings of the city have identified a series of contexts that allow us to have a clearer view of the Ostian pictorial production before the 2<sup>nd</sup> c. AD. Therefore, this produces a broader and more accurate knowledge.<sup>3</sup>

The earliest paintings found in Ostia date to the end of the 2<sup>nd</sup> c. BC and present very close analogies with First Style decorations in Rome and Campania.<sup>4</sup> In Ostia,



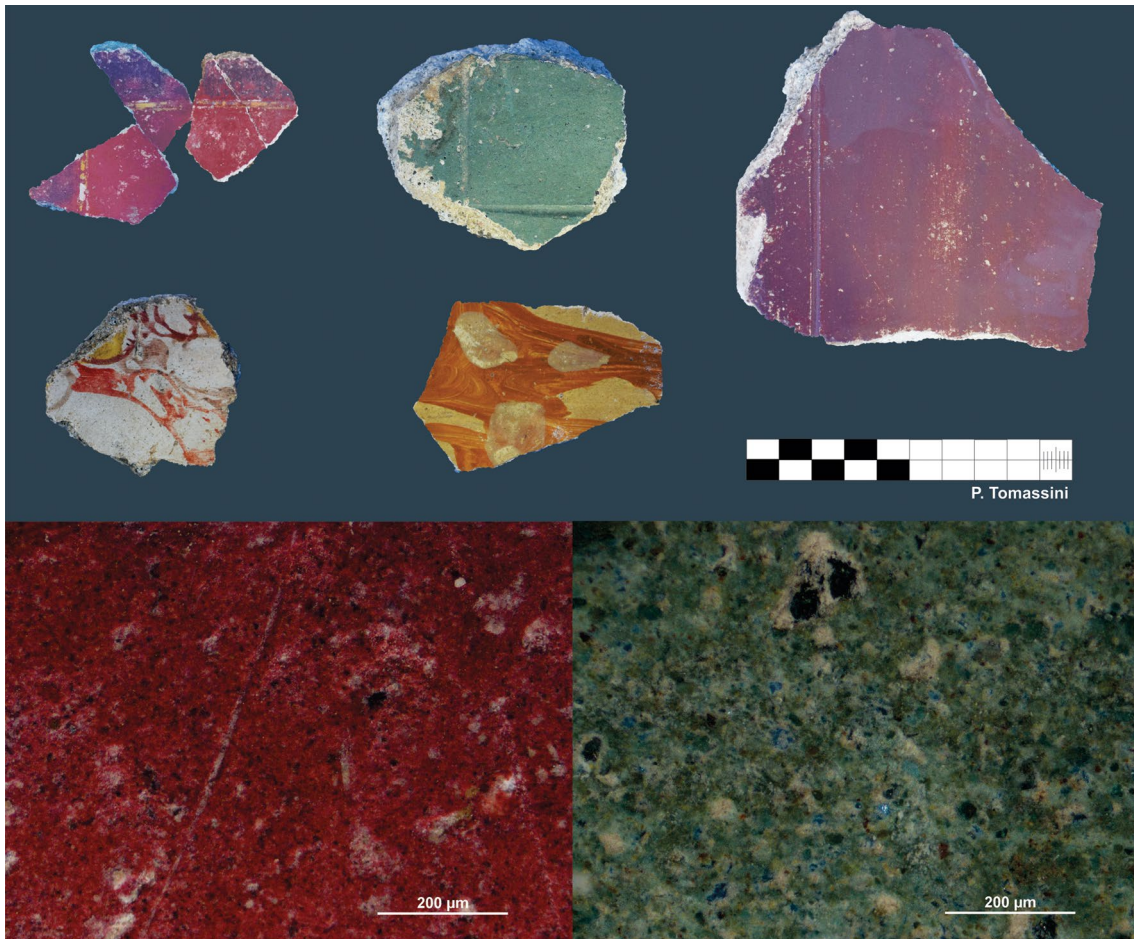


Fig. 2: First Style fragments from the *C. delle Taberne Finestrate*, with detailed views of the green and red partitions.

only a small number of First Style fragments are preserved, and all occur in secondary positions. They come from the excavation of three contexts: the *Insula di Giove e Ganimede*<sup>5</sup> (fig. 1, 10), the *Domus dei Bucrani*<sup>6</sup> (fig. 1, 4), and the *Caseggiato delle Taberne Finestrate*<sup>7</sup> (fig. 1, 3). Only the latter has been studied in this research. The *Caseggiato delle Taberne Finestrate* is a 2<sup>nd</sup> c. AD building constructed on the remains of a previous building.<sup>8</sup> In 1973, excavations of the Superintendency of Ostia brought to light a large number of fragments, very small in surface area but in a relatively good condition and of a very high quality (fig. 2). As in First Style paintings, the decoration is moulded in relief. The only difference here is that the decoration also presents deep incisions, imitating architectural elements and courses of blocks. The quality of the execution is remarkable, with accurate faux-marble and smooth and shiny surfaces, which appear very similar to real marble. The quality of the mortar layers is also very high (fig. 3, a and c), with an *intonachino* layer of ca. 5 mm and at least one layer of intonaco.

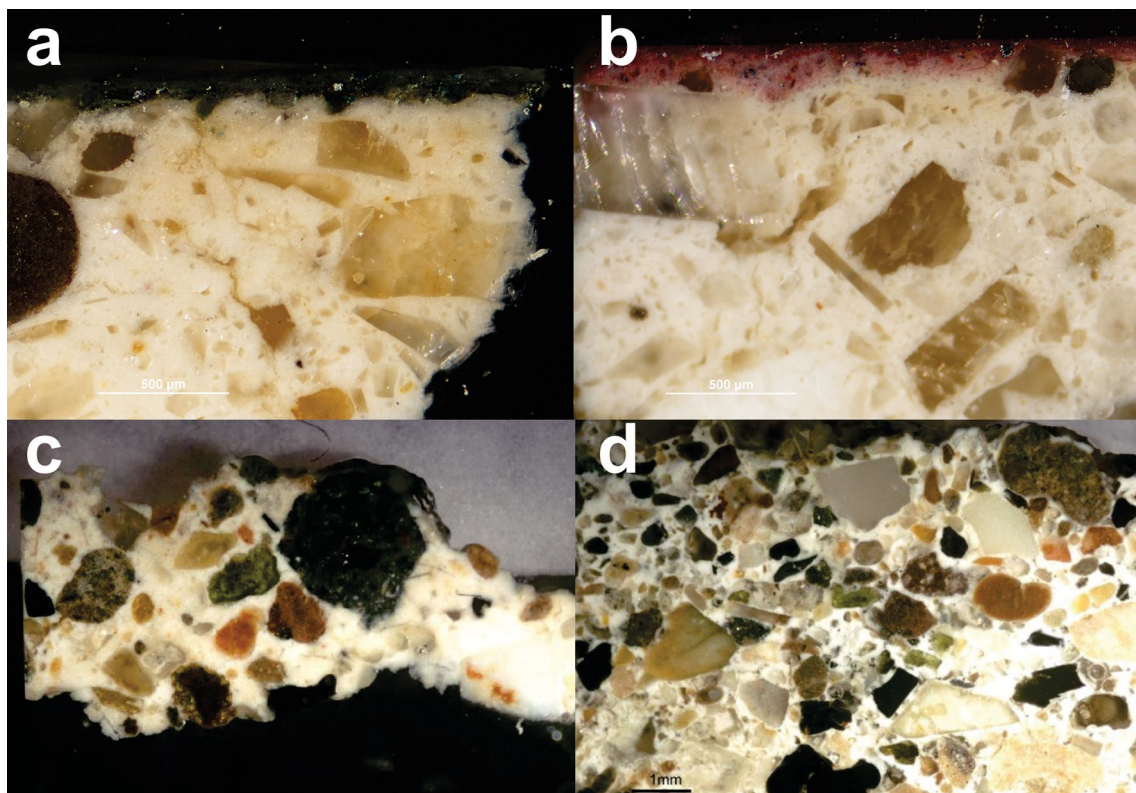


Fig. 3: Thin section of plaster layers from the *C. delle Taberne Finestrate*; a) First Style *intonachino*; b) Second Style *intonachino*; c) First Style *intonaco*; d) Second Style *intonaco*.

Archaeometrical analyses have revealed that the *intonachino* is a *marmorino* made of aerial lime with a high number of spathic calcite aggregate, which was obtained by powdering white marbles or calcite veins. The *intonaco* layer is made of aerial lime, but in this case the aggregate is composed by pyroxenes, volcanic and carbonate rocks. Thanks to the archaeometrical analysis, it was also possible to identify the pigments. A frequent use of red and yellow ochre is attested, but the most interesting results come from the green colour, identified as a green earth composed of calcium, iron, copper and very rich in potassium.<sup>9</sup> VIL analyses have demonstrated that the green earth is homogeneously mixed with Egyptian blue, even for the background colours.

The same chemical and mineralogical composition can be found in the later production of the 1<sup>st</sup> century BC, which corresponds to the Second Style decorations. Second Style paintings are well attested in Ostia, with both *in situ*<sup>10</sup> and fragmentary paintings in secondary position.<sup>11</sup> Archaeometrical studies on four samples collected from the *Casoggiato delle Taberne Finestrate* have revealed that the painting technique and the materials have not changed with respect to the previous production. This can be clearly seen in fig. 3, which shows a comparison between the thin sections of the plaster layers used for the First and Second Style paintings. Both the *intonachino* and the *intonaco*



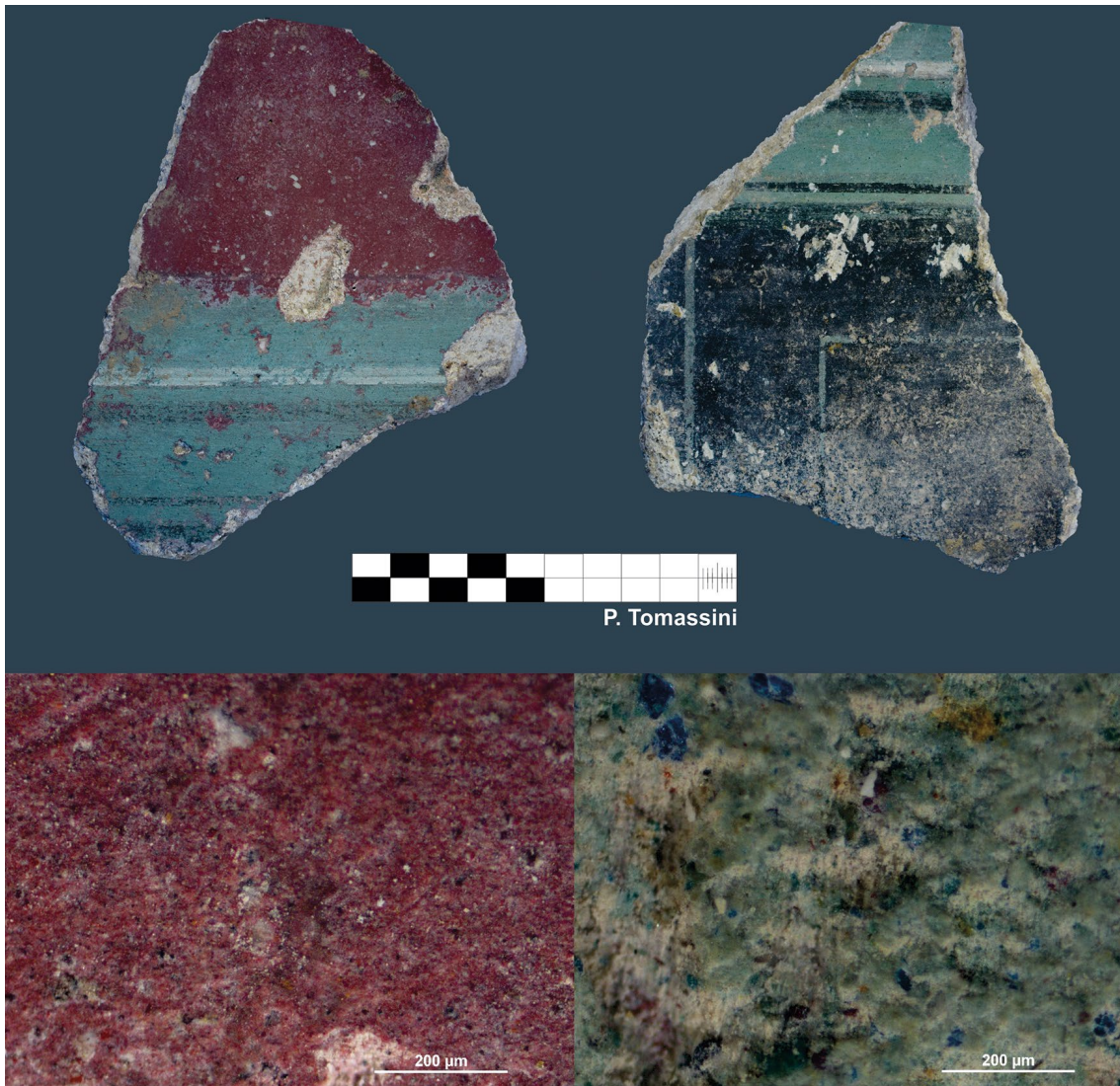


Fig. 4: Second Style fragments from the *C. delle Taberne Finestrate*, with detailed views of the green and red partitions.

present the same petrographic composition, and the granulometry of the aggregate is exactly the same. Concerning the pigments, red ochre was largely employed in order to obtain the purple backgrounds and the veins of some faux-marble incrustations (fig. 4). It is extremely interesting to note that the same green earth with calcium, iron, copper and a high amount of potassium was also used in the Second Style Ostian wall paintings, once again mixed with Egyptian blue. According to the chemists, the use of the same green earth is probably due to the exploitation of a common source during the 2<sup>nd</sup> and 1<sup>st</sup> c. BC. More generally, these technical similarities between First and Second Style paintings in Ostia suggest that the painters of the end of the Republic referred to

previous traditions and did not change their way of working. The innovation resides therefore in the decoration itself, in conformity with what happens elsewhere in this period. Indeed, the Second Style decorations from Ostia show orthostates, columns, as well as strips and courses of blocks painted in different colours on flat plaster surfaces in order to suggest the illusion of three-dimensional architectural elements. Comparison between the paintings of the *Caseggiato delle Taberne Finestrate* and the wall paintings from the *Domus dei Bucrani*<sup>12</sup> show great compositional and stylistic homogeneity, which could indicate that both were the work of the same atelier or a same *modus operandi*.

Around the middle of the 1<sup>st</sup> c. AD, the pictorial production of Ostia underwent significant changes, both in style and technique. The number of paintings increased, which is probably to be linked to the construction of the harbour basin by the emperors Claudius and Nero.<sup>13</sup> This brought a phase of prosperity to the city, leading to the construction and re-decoration of several buildings, but also to a democratization of the pictorial production. It corresponds to the Fourth Style in the Vesuvian Towns.<sup>14</sup> Fourth Style paintings are well attested in Ostia by both *in situ* and fragmentary wall decorations, most of them recently studied by the researchers of the *Centro Studi Pittura Romana Ostiense*. Twenty-three samples were collected from the *Caseggiato delle Taberne Finestrate*, the *Caseggiato dei Lottatori*, an unnamed building in the Fifth Region of the city, and from a group of fragments of unknown origin. The archaeometrical analyses revealed that the mortar layers and the pigments used in Fourth Style paintings are extremely similar in composition and disposition (fig. 5). The study of the thin sections observed under optical microscope shows the presence of generally three mortar layers. The *intonachino* (4–8 mm thick) is systematically composed by two layers: the outermost layer is made of an aggregate of aerial lime and carbonate rocks; the second layer is made of simple lime without any aggregate and is characterized by many cracks. In some cases, we can find only one layer of *intonachino*, but the composition remains the same: an aggregate of aerial lime with carbonate rocks. On the other hand, the *intonaco* is made of an aggregate of aerial lime with carbonate and volcanic rocks along with pyroxenes. Very few traces of the *arriccio* layer are preserved, indicating a clay-based mortar composition. Concerning the pigments, the frequent use of red and yellow ochres is attested for both the backgrounds and the decorative elements like borders, garlands, and architectural features. The palette of the painters becomes much more varied, with a large number of nuances, from dark yellow to light red, or from greyish white to violet (fig. 5; fig. 6, b/c). Green earth is largely used, especially for vegetal and architectural decorations such as garlands, columns and structures (fig. 6, d/e). As in the past, it is very often mixed with Egyptian blue. The only difference is that the green earth mixed with Egyptian Blue is only used for minute decorative details and no longer for large partitions, as in First and Second Style paintings (fig. 6, f/g/h). Moreover, a new type of green earth appears: in addition to the green earth with potassium traces, a new one very rich in chrome becomes the most used green pigment. This could indicate a new supply source that was not used before. However, Egyptian blue is not only



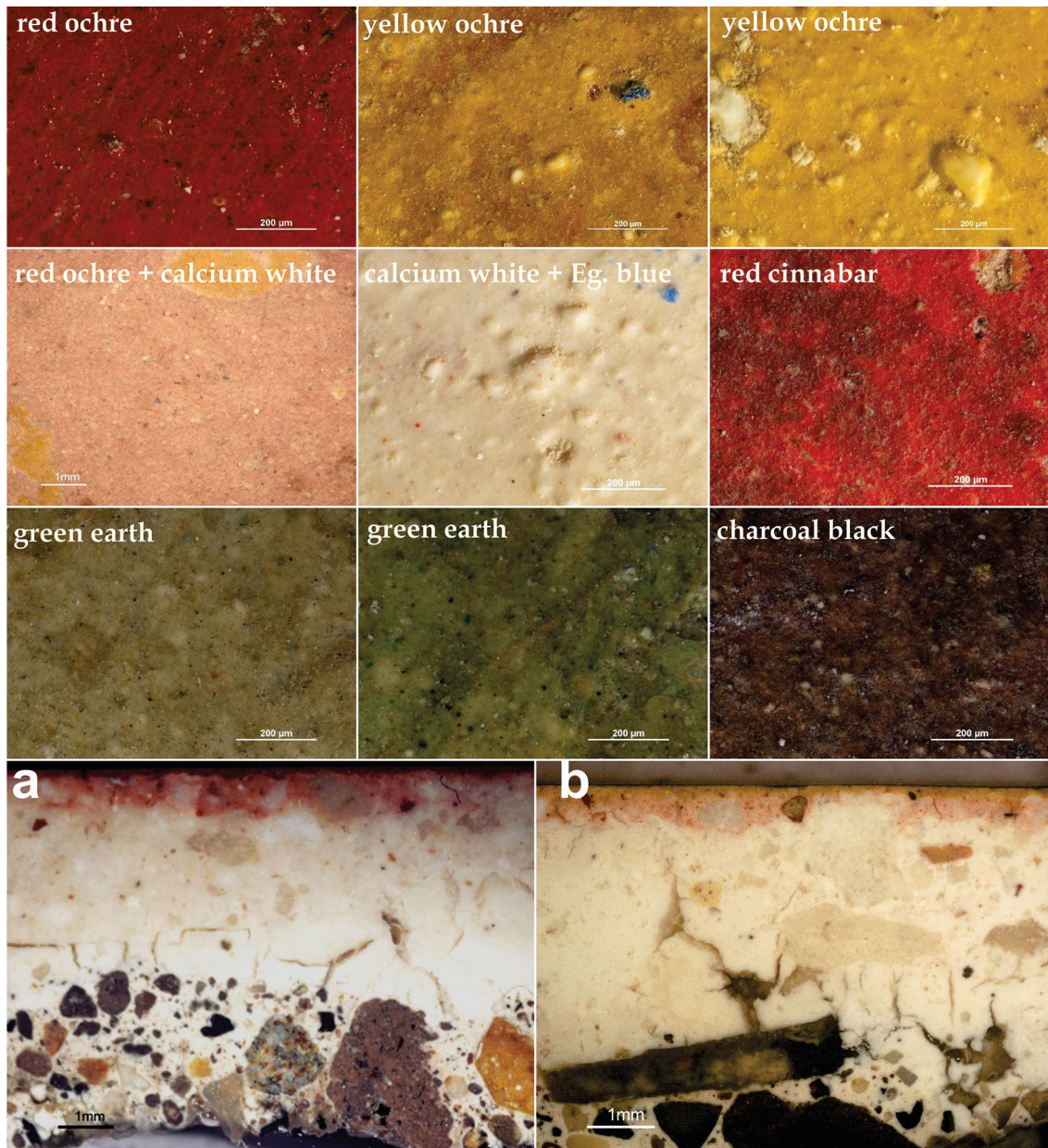


Fig. 5: Sample of Fourth Style colours in Ostia, with identification of the pigments. Below, thin section of Fourth Style plaster layers: a) *C. delle Taberne Finestrate*; b) *C. dei Lottatori*.

mixed with green earth. The archaeometrical analyses identified that some motifs from the *Caseggiato dei Lottatori* and the *Caseggiato delle Taberne Finestrate* are made with a mixture of Egyptian blue and a white calcium-based pigment. The result is a very delicate blueish grey, which is only used for small decorative elements (fig. 6, b). Pure

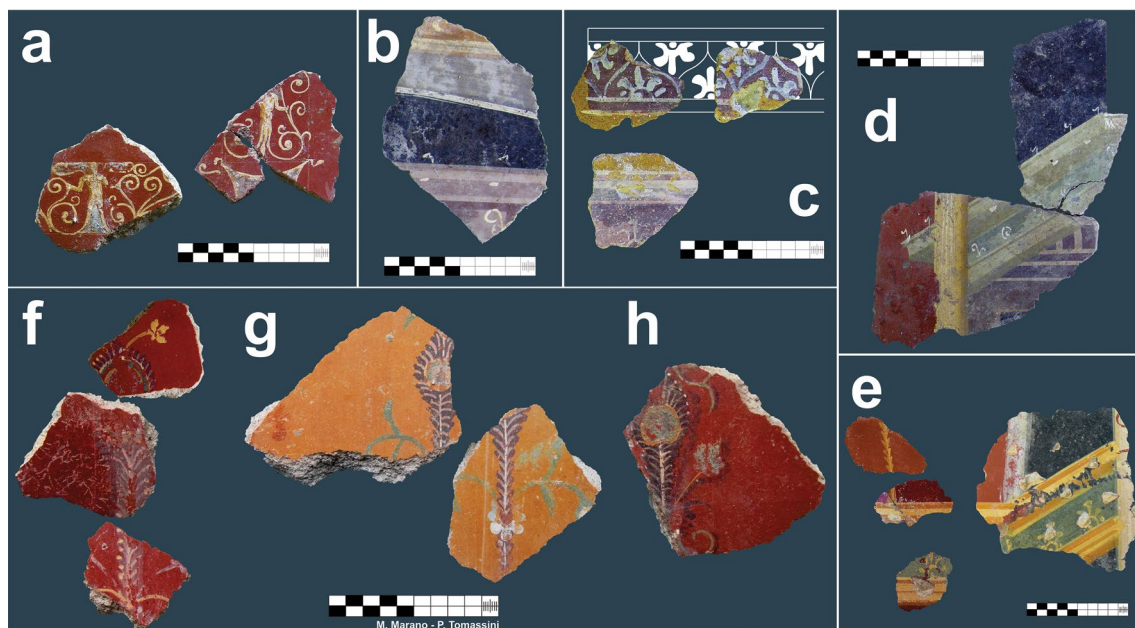


Fig. 6: Selection of representative Fourth Style fragments from Ostia; a) *C. dei Lottatori*, tapestry border with sirens; b) *C. dei Lottatori*, purple architectural element with blueish grey architrave; c) *C. delle Taberne Finestrata*, purple architectural element; d) *C. dei Lottatori*, green and yellow architectures; e) *C. delle Taberne Finestrata*, green and yellow architecture; f) *C. delle Taberne Finestrata*, peacock feather; g) V, II, 2, peacock feather; h) *C. dei Lottatori*, peacock feather.

Egyptian Blue is rarely used: at the moment, only one case is attested on some ceiling fragments from the *Caseggiato delle Taberne Finestrata*, employed *a secco*.<sup>15</sup> Red cinnabar is also quite rare, but it is used for small decorative details.

On the other hand, the general quality of the decorations remains very high, and the painters become more skilled to create a wide variety of colours with only a few pigments (fig. 6). The close analogies between the techniques used in the different contexts of the city are also visible in the decoration itself. In fact, Fourth Style paintings in Ostia seem to share a unified repertoire and a common taste for light architectural settings that alternate with tapestry-like fields. Moreover, a series of ornaments appear to be replicas of a same model, which could perhaps indicate the work of the same painter. This is the case of a peacock feather, which can be found in three different contexts, painted exactly in the same manner and with the same pigments (fig. 6, f/g/h). This could indicate the presence of a local atelier in Ostia, working at the same time on different buildings, or at least of different painters sharing the same manner of working.<sup>16</sup>

The situation drastically changes at the beginning of the 2<sup>nd</sup> c. AD. After the construction of Trajan's Port, Ostia is completely transformed. In a very short span of time, entire quarters of the city were destroyed and reconstructed; the vast majority of





Fig. 7: *Case a Giardino*, paintings from the *insulae* with *medianum*. Above: III, IX, 14, room 5, north wall; below: III, IX, 17, room 4, north wall.

the domus was replaced by multi-storey buildings, the so-called *insulae*.<sup>17</sup> This urban, demographic and economic boom had many consequences in the conception of housing, but also in the conception of painting as well. Indeed, in wall painting production there was a real phenomenon of standardization and an important loss in quality, caused by the need to decorate a very large amount of rooms in a very short span of time. An archetype of Ostian architecture of the 2<sup>nd</sup> c. AD is the residential complex of the *Case a Giardino*, in the western part of the city. The paintings of the central apartments of the complex are replicated in a modular way, with only a few variations (fig. 7). This most



Fig. 8: *Insula delle Ierodule*, room 6, east wall.

probably indicates the synergy of the painters on a common project.<sup>18</sup> One of the richest apartments of this complex, the *Insula delle Ierodule*, was more accurately studied in the last years (fig. 8).<sup>19</sup> Archaeometrical analyses of the paintings were conducted by Johannes Weber, as part of the project *Leben mit Bildern in Ephesos und Ostia*, of the *Institut für Kunst und Technologie/Naturwissenschaften in der Konservierung* of Vienna and directed by Norbert Zimmermann. The petrographic analyses, presented in Naples at the tenth AIPMA conference,<sup>20</sup> have revealed the presence of three mortar layers of much poorer quality, characterized by a high porosity and by many lumps and cracks. A strong increment of volcanic rocks is also attested in the *intonachino*, *intonaco*, and *arriccio*, while the carbonate rocks seem to disappear. The loss of quality also affected the pigments. Even in the richest apartment houses, the most precious colours, like the Egyptian blue and the red cinnabar, seem to disappear or are used in a very limited way; from now on, the palette is essentially based on red and yellow ochres. This general lack of quality, which is also attested elsewhere, reveals a diffuse change in the mentality of the painters. Now, the richness of a decoration lies more in the artistic skills of the painter rather than in the quality of the materials, while in the past both were equally important.

Concerning the decoration, second century paintings are much more schematic than in the past. The execution is generally quicker and less precise, and the repertoire used by the painters becomes simpler and more repetitive. This stylistic pauperization is probably to be linked to the production dynamics of the ateliers. As said above, in the 2<sup>nd</sup> c. AD there is a need in Ostia to create quickly enough buildings to host the growing population of the city; this should explain the standardization of the motifs

and their simplification. At this stage of the research, it is not yet possible to identify more accurately the nature and the practices of the craftsmen working on the site at this period. However, like in the past, the execution technique and the materials used seem to be extremely homogeneous, which is a first argument in favour of the presence in Ostia of a local atelier, working on different buildings in the city at the same time.

Further analyses on the composition of the mortars and the pigments will provide a better understanding of the production dynamics of this period, which is one of the most complex in the history of Ostia. Our intent is to continue the study by extending the research to other contexts and later phases.<sup>21</sup>

With this contribution, we have tried to show the importance of studying ancient wall painting through a material and technical approach. To study the evolution of techniques in Ostia together with the stylistic and historical analysis also means to understand the social, cultural, and economic transformations experienced by the population of the city during its ancient life. At this stage of the research, it is very interesting to see how the history of the technique is linked to the history of the city, and how both have influenced the changes of taste and status of Roman art. In this study, archaeometrical analyses have brought a fundamental contribution to the understanding of ancient wall painting, and we can only hope that studies of this kind will be conducted on larger scale in the future, in order to better understand the evolution of techniques and practices of Roman painting in time and space.

### Notes

<sup>1</sup> We would like to thank Mariarosaria Barbera, Paola Germoni and Cinzia Morelli for their support of our project, as well as all the staff of the Parco Archeologico di Ostia Antica. We are also thankful to the Fonds de la Recherche Scientifique (FNRS) for funding part of the archaeometrical analysis, but also to Susanna Bracci and Emma Cantisani for their outstanding work.

<sup>2</sup> For a complete synthesis of the paintings of Ostia, we recommend Falzone 2004 and Falzone 2007.

<sup>3</sup> Conte et al. 2017; Conte et al. 2018; Falzone 2015; Falzone 2017; Falzone 2018; Falzone et al. 2018; Marano 2017; Marano 2018; Marano – Tomassini 2018; Tomassini 2014; Tomassini 2016; Tomassini 2019.

<sup>4</sup> For a study concerning the First Style decorations see Laidlaw 1985.

<sup>5</sup> Mols 2002, p. 152.

<sup>6</sup> Presented for the first time in 2017 by T. Morard and L. Motta at the first Congress of the *Associazione Italiana Ricerche Pittura Antica* (AIRPA) in Aquileia, but their paper is still unpublished.

<sup>7</sup> The first style fragments were more thoroughly discussed in Falzone – Tomassini 2019.

<sup>8</sup> Tomassini 2016.

<sup>9</sup> Further analysis is planned, in order to identify whether the green earth is a celadonite or a glauconite.

<sup>10</sup> See the paintings of the *Domus dei Bucrani* (Morard 2007).

<sup>11</sup> See the fragments discovered in the *Tempio dei Fabri Navales*.

<sup>12</sup> Concerning the decoration of the *domus*, see Bocherens 2012; Falzone 2007, 25–30; Morard 2007, 54–79. Concerning the technical properties of these paintings: Terrapon 2007; Falzone et al. 2010.

<sup>13</sup> Keay – Paroli 2011.

<sup>14</sup> Third Style decorations are still very rare in Ostia, and seem to be technically similar to Second Style paintings, with the only difference being that the *intonachino* layer becomes less thick. Among them, we cite the paintings from the *Portico delle Corporazioni* (Pohl 1978), from the cella of the *Santuario della Bona Dea* (Falzone 2006; Falzone 2007, 41–42; Medri et al. 2017, 18–19, fig. 29) and from the excavations of the *Terme Bizantine* (Conte et al. 2018, Falzone et al. 2018).

<sup>15</sup> Tomassini 2019, 71–73, pl. XVII,1.

<sup>16</sup> Concerning the Fourth Style paintings in Ostia and the identification of workshops, see Marano – Tomassini 2018.

<sup>17</sup> DeLaine 2012, esp. 328–332; Falzone 2007, 52–54; Heinzelmann 2002; Pavolini 2006, 34–35.

<sup>18</sup> Falzone – Zimmermann 2010. It is not possible yet to identify the work of a single atelier for the whole complex, due to the strong differences between the richest houses, like the *Insula delle Muse*, and the medium-level structures. A more complete study on the technique and the materials will be conducted within the project „The ‚Case a Giardino‘ in Ostia – archaeological context and virtual archaeology“ approved financing by the Austrian Science Fund (FWF) and started on 2019 at the Institute for the Study of Ancient Culture (IKAnt) at the Austrian Academy of Sciences (ÖAW) in Vienna.

<sup>19</sup> All the results of the recent excavations and studies are published in Falzone – Pellegrino 2014.

<sup>20</sup> Falzone et al. 2010. This paper compares the pictorial technique of Ostia and Ephesus, showing how the same technique can be adapted depending on the characteristics of the local materials.

<sup>21</sup> It is the aim of a newly started project of P. Tomassini, funded by the *École française de Rome*.

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# Room Decoration as an International Code for Living with Images during the Roman Imperial Period

Barbara Tober

Eclectic features of post-Pompeian wall painting systems make classification and dating without stratigraphic and architectural-historical results difficult. The wide range of painting systems common in the 2<sup>nd</sup> and 3<sup>rd</sup> century AD present only a few general, stylistic characteristics. An analysis of the use of painting systems in the terrace houses of Ephesus and of the distribution of stucco and wall painting friezes in a building in Palmyra has revealed specific parameters that serve to impart the status of a room and its hierarchy within a house. Decorations are highly diversified, and yet one common code for living with images, which seems to be international during the middle of the Roman imperial period, exists at all the widespread sites, even in the northwestern provinces like Noricum.<sup>1</sup>

An analysis of the use of wall paintings in Ephesus and Ostia resulted in the definition of several parameters for this code.<sup>2</sup> The distribution of painting systems in terrace house 2 of Ephesus in the phases 2–3 illustrates this theory (Fig. 1).<sup>3</sup> The apartments have large rooms for representation north of the peristyle. Apartments 1, 3, and 5 each have an exedra south of the peristyle. Often two closed, small rooms are situated east of the peristyle.<sup>4</sup> In spite of these broadly common features, each apartment features an individual plan, which was adapted as per needs and the personal preference of the owner. The distribution and value of the wall painting shows that architecture was completed by room decoration. The use of marble revetment as the highest category was limited to the best and most important rooms.<sup>5</sup> Two neighboring rooms of apartment 4, opening towards the peristyle and very close to the representation rooms on the first floor, are decorated with stucco masonry.<sup>6</sup> In residential unit 4, a garden painting opens the closed courtyard in an illusionistic manner.<sup>7</sup>

The most common and typical system of the Ephesian workshop in terrace house 2 is the open fields and lesene system (Felder-Lisenensystem).<sup>8</sup> A more complex layout on red background was exclusively adopted in the peristyle.<sup>9</sup> The white background open fields and lesene system is more flexible and appears in the peristyle or in representation rooms that open toward the peristyle.<sup>10</sup> The lesenes are decorated with leaves and candelabra, which vary in polychromy and sophistication depending on the rank of the room.<sup>11</sup> Rare elements enhance the paintings. The quality is defined by elaborate frames and the choice of emblems in the fields. Emblems with philosophers and muses on red fields exist only in the peristyles.<sup>12</sup> Birds and other emblems are used on red and white fields.<sup>13</sup> Emblems vary on white background open fields and lesenes. There are medallions with philosophers in the peristyle of apartment 5.<sup>14</sup> Emblems with artists, servants and banqueters emphasize its use as a dining room.<sup>15</sup> The use of identical painting systems with

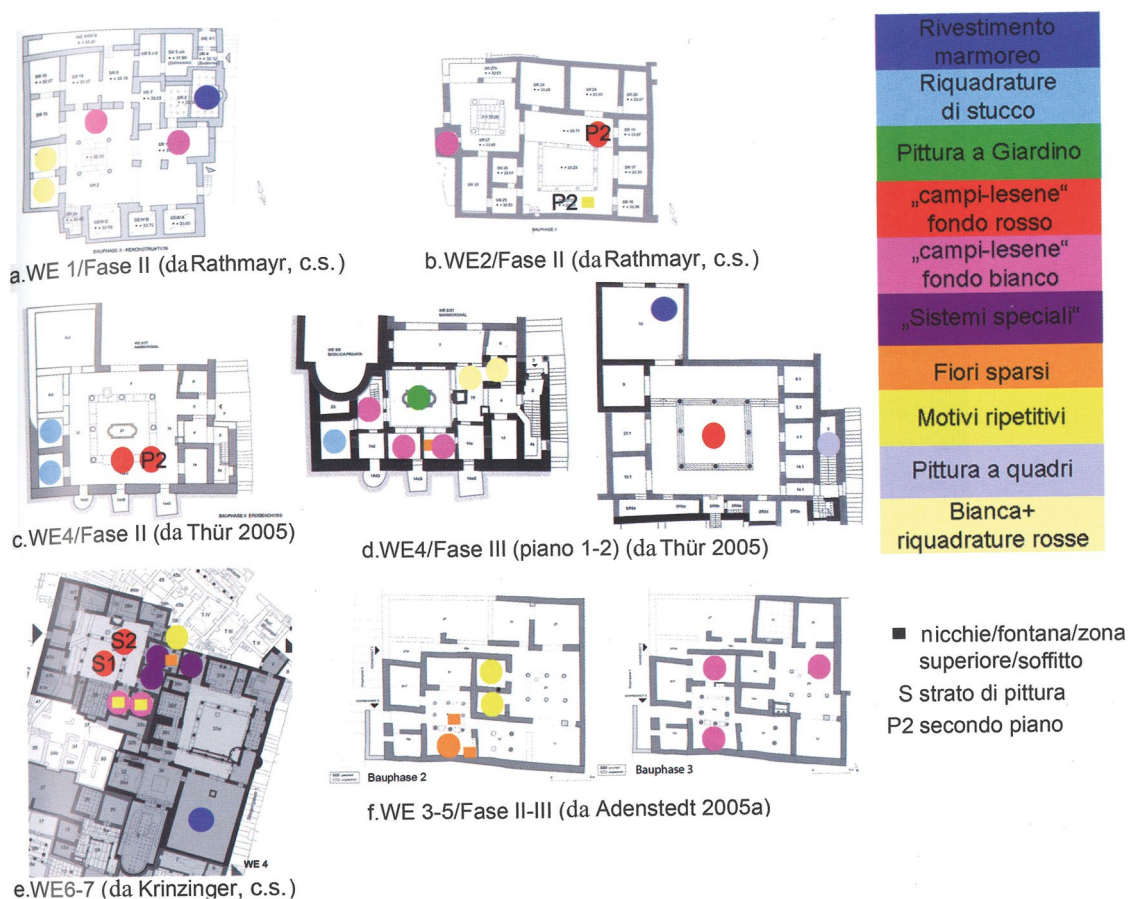


Fig. 1: Ephesus: Distribution of wall painting systems in terrace house 2.

birds and fish establishes a visual axis between the northern and southern rooms along the peristyle of apartment 3.<sup>16</sup> Concerning the upper zone of the wall, the status is determined by the use of architectural painting on a yellow<sup>17</sup> or white<sup>18</sup> background. A mythological scene enhances the upper zone in only one single case in the peristyle of apartment 4.<sup>19</sup>

The only exceptions to these decorations on white backgrounds are to be found in apartments 6 and 7. Small landscapes, ornaments unique to Ephesus, and a painting system with aediculae in the middle zone follow western painting systems.<sup>20</sup> The use of repeated patterns in two small, secondary rooms, connote a functional connection between the rooms.<sup>21</sup> Scattered flowers are found only in rooms which open towards a courtyard.<sup>22</sup> Painted masonry is exclusively used in staircases.<sup>23</sup> A very simple system consisting of red frames in the corners on white background is used in two small, secondary rooms and again connotes their equal rank.<sup>24</sup>

In phases 2 and 3 of the 2<sup>nd</sup> century, the Ephesian workshop made use of ten painting systems in terrace house 2 (fig. 1). The variation of the base color, painting systems,



motifs and figures connote the function of rooms. Specific systems and motifs are reserved for particular rooms. Identical decorations in neighboring or opposite rooms create a connection or visual axis.

The comparison of the Ephesian results with Stella Falzone's analysis of the wall painting of the 2<sup>nd</sup> century houses in Ostia has revealed that local painting systems define main and secondary rooms.<sup>25</sup> In Ephesus the workshop preferred open fields and lesenes. In Ostia, aedicular decorations are the preferred painting system. Main rooms use complex systems with rare elements and special ornaments. Polychromy is another factor used to emphasize the meaning of the room. Secondary rooms have simple painting systems and reduced polychromy and ornaments. Mythological scenes are rare and reserved for main rooms. Rare and special systems express the wishes of the sponsor. Identical painting systems stress axial and functional connections. Mosaic and marble decoration completes the expression of room hierarchy.

### **Are these Parameters also Valid in Palmyra? What about their Applicability?**

In the ancient city of Palmyra, a building with a large courtyard provides a unique context for interior wall painting and stucco decoration.<sup>26</sup> The decoration originated in approximately the mid-2<sup>nd</sup> century and was in use until the building was abandoned.<sup>27</sup> In Palmyra the room hierarchy is defined by molded stucco and painted friezes.

The stucco decoration comprises nine different friezes, which can be classified in three categories:<sup>28</sup>

- A. Very simple moldings without further three-dimensional decoration. They come from string courses, monumental door cases, and from the frames of niches.
- B. Stucco friezes with flat relief that combines different stamped ornamented bands.
- C. Very elaborate friezes with moldings in high relief including vegetal and figural decoration.

Within these main categories some features contribute to a more refined expression<sup>29</sup>: the technical complexity required in order to produce the frieze; moldings made by templates, stamped ornaments and ornaments that are formed by hand; the height of the stucco-relief and plasticity of the frieze; the number of ornament bands; and the quality, richness of details and variation of free-formed parts like consoles and appliques.

The painted friezes complement these results and can also be classified in three categories.<sup>30</sup> System B comprises four similar ornamental friezes with elements of architectural decoration. Six to seven zones combine anthemion with egg-and-dart, tendrils, dentils and polychrome stripes.<sup>31</sup> System C has a reduced amount of polychromy and the number of zones. Only three zones on white background show an anthemion, egg-and-dart, and dentils.<sup>32</sup> System A is a highly elaborate decoration. The design of the frieze is combined with adjacent figural medallions and cassettes.<sup>33</sup>

### Decoration of room G:



Fig. 2: Palmyra: Decoration of the most important room G.

Like the stucco-friezes, the wall paintings form their own, very clear hierarchy of three categories. They show a clear intended ranking of the interior decoration. The wall paintings lack the possibility of variation in the third dimension and the complexity of plasticity, but through motif, size, and color, the painted decoration provides a differentiation of individual rooms<sup>34</sup>.

The distribution and combination of stucco and painting in this building illustrates the practical use of the categories for emphasizing the meaning of the room.

In room G we can find (fig. 2):<sup>35</sup>

1. The most elaborate paintings with figural designs (system A)
2. Friezes with free-formed stucco, garlands, and masks of the best category C
3. Gilded sea creatures
4. Some parts of a shell-shaped conch

The concentration of these elements and the exclusive use of paintings and stucco of the best category C, identify room G as the most representative room, at the top of the hierarchy of the building.<sup>36</sup>

But aside from this outstanding and opulent room, they created a sensitive design inside the building (fig. 3). If there are stucco and painted friezes in one room, they refer

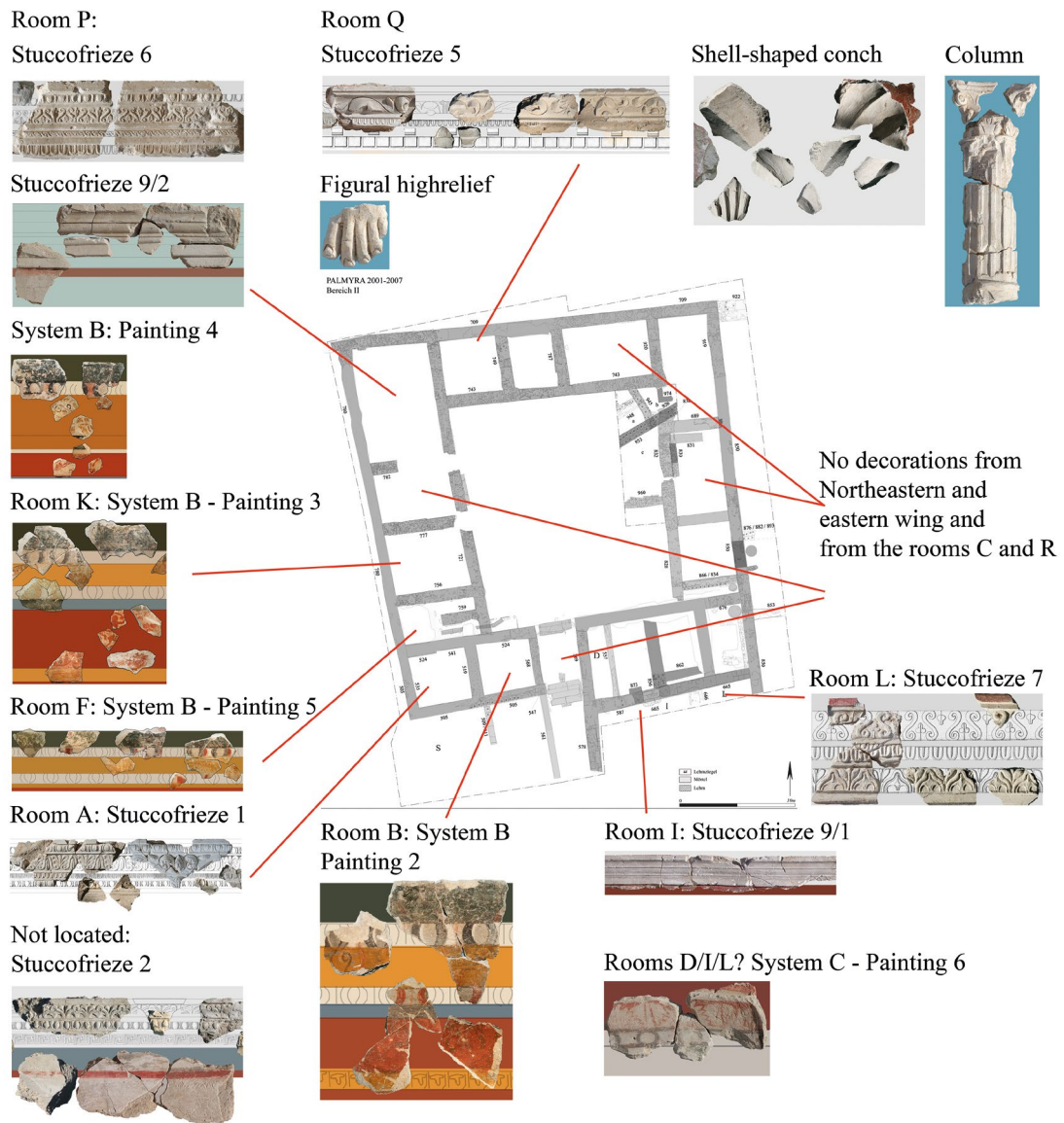


Fig. 3: Palmyra: Decoration of the other rooms.

to each other and the workshop that used the same categories. Room P contains only friezes of average category B in stucco and painting and a door case.<sup>37</sup> The adjoining rooms of room G show examples of the categories A and B, and represent secondary rooms.<sup>38</sup> Beside the room decorations with a combination of stucco and painting, there are two rooms with only one medium. Room Q has a stucco-frieze of the best category.<sup>39</sup> Room A has a stucco-frieze of average category but with elaborate capitals.<sup>40</sup> Both rooms seem to be important and of similar rank.

The use of wall painting system B connects the rooms K, F, and B by the sense of meaning, and emphasizes this sequence of rooms in the south-western part of the building.<sup>41</sup>

The analysis shows a very clear example for the use of friezes for defining main and secondary rooms. Room G is outstanding and opulent, followed by rooms Q and A with their stucco decoration. Room P is next with a combination of stucco and painting. The rooms B, F, and K form an equivalent group of secondary rooms without stucco.<sup>42</sup>

In contrast to Ephesus and Ostia, where marble revetment and different painting systems define the hierarchy, Palmyra prefers to use stucco and painted friezes for the expression of the meaning of the rooms.

In spite of the different medium, the parameters in Ephesus and Palmyra are the same: polychromy, figures, number, quality and singularity of ornaments are complemented by plasticity and the technical complexity of the production of the stucco friezes.

**To Go more International, These Parameters Will Be Proved in the  
Northwestern Province of Noricum. What about the Expression of the  
Meaning of the Rooms there?**

The paintings in Noricum are often in poor condition, but together with the mosaic-floors they create an idea of the immovable environment of the buildings.<sup>43</sup>

The early Tiberian example of the Principia on the Magdalensberg shows the adoption of the repertoire to the use of space.<sup>44</sup> Hall A has paratactic fields without a center, which can be repeated endlessly.<sup>45</sup> Decorative figures without special meaning enrich the painting system. Room E features higher polychromy and a central image, probably with a specific subject.<sup>46</sup>

In Salzburg/Iuvavum, several sites have mural painting complexes combined with mosaic floors. In the ancient domus beneath the square named after the famous composer (Mozartplatz), some rooms have mosaics and two rooms display painted dados.<sup>47</sup> The mosaics and paintings seem to be part of period II, which dates from the mid-2<sup>nd</sup> century until the beginning of the 3<sup>rd</sup> century. Room C shows a centrosymmetric dado.<sup>48</sup> The painting is polychrome, has a figural part, and an unusual motif with a vegetal foot for a medallion. The mosaic floor has a central field.<sup>49</sup> The room is being interpreted as a dining room.<sup>50</sup>

Ambulatory B belongs to a courtyard with columns and is decorated with a crenellated meander (Zinnenmäander) with birds and tendrils in the intervals. Higher up it is followed by a black-grounded main zone. The endless pattern of the mosaic and the consecutive crenellated meander optically support the sense of movement in the room and serve the room's purpose.<sup>51</sup> Room A, containing the famous mosaic with Achelous and Amazons, is called the tablinum and was the most representative room of the building.<sup>52</sup> The rooms seem to follow a staging that is aligned towards the main room with its figural mosaics.<sup>53</sup>

In Saalfelden the architectural design with an apse indicates a main room.<sup>54</sup> The ill-preserved wall decoration has marble and opus sectile imitation on the dado, followed by a polychrome field and lesenes decoration in the main zone together with

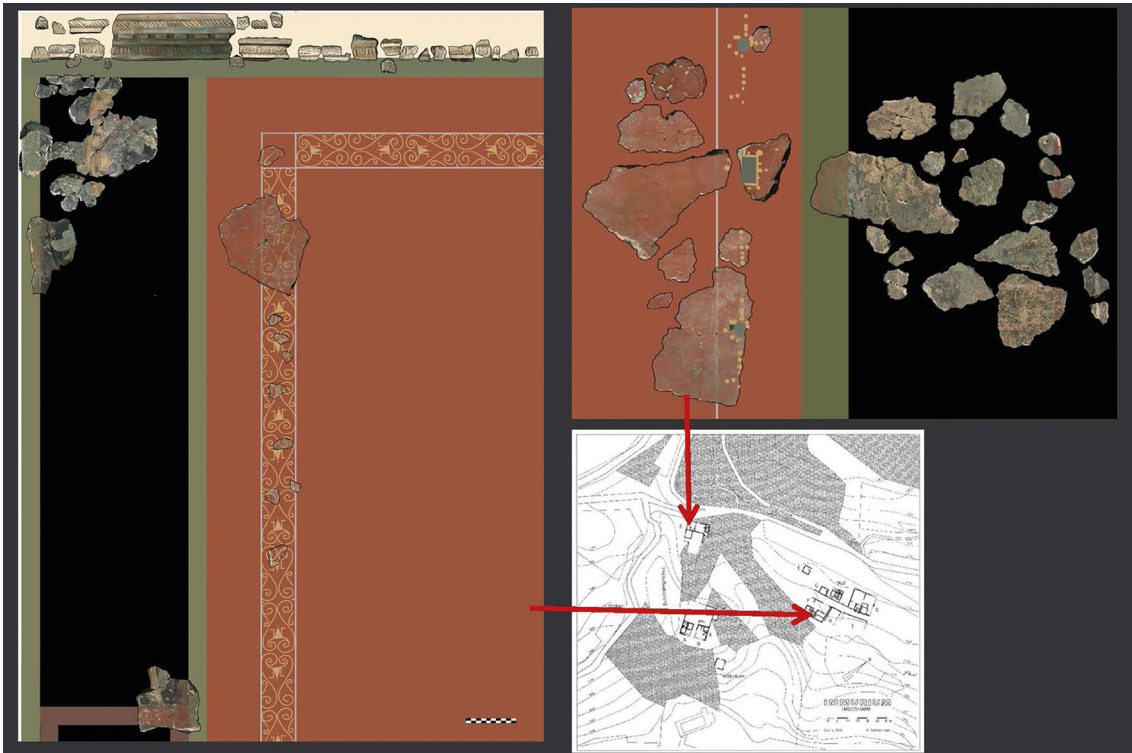


Fig. 4: Immurium/Moosham: Two wall painting systems from house F and house J.

a polychrome architectural decoration. The iconographic program of the ceiling uses Pompeian wall painting image types, like the myth of Actaeon, as well as rare motifs like the gigantomachy. The choice of the personification of the wind gods over the more common four seasons is rather uncommon on painted ceilings. The architectural system, the rare and special motifs of the wind gods and the gigantomachy, as well as the polychromy define the high ambition of this decoration. New finds from another room in the same villa show fragments of a rather simple yellow-black decoration with sprinkled dots on the dado.<sup>55</sup> A gradation towards the main room can also be noticed in a Roman villa in the Alps.

In the Roman villa of Marzoll, the room decoration of the second half of the 2<sup>nd</sup> century is coordinated with the architecture and the mosaic floors.<sup>56</sup> The main rooms had polychrome paintings, two rooms were heated and all had mosaics. The corridors had white-grounded wallpaper patterns on walls and ceilings, a simple plastered floor or a simple mosaic, but no heating. Secondary rooms had no mosaics and no paintings. Polychromy seems to determine main rooms. Corridors were decorated efficiently with all-over wallpaper patterns.

In the Roman vicus at *Immurium* in the Alps, houses with wall-decoration were excavated (fig. 4). Room F4 in house F at *Immurium* had a heating system and a red dado, and the secondary rooms of the house F5 with an oven and the small room F6 had



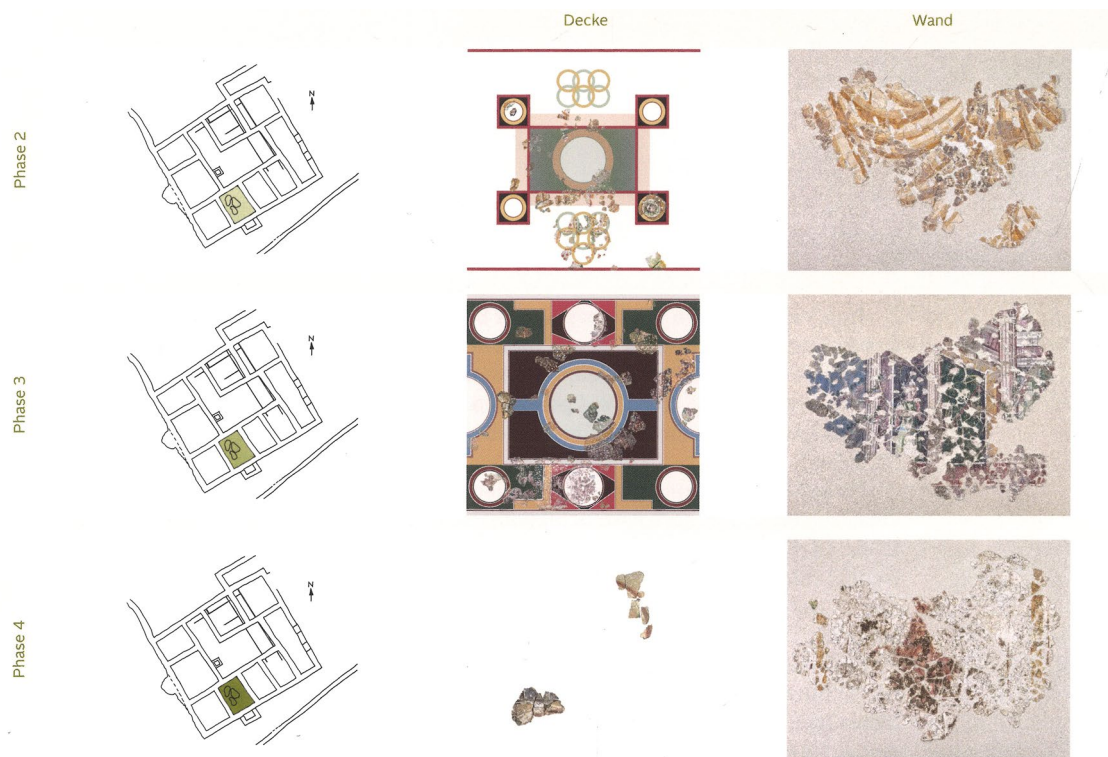


Fig. 5: Lauriacum/Enns/ "House of Medusa": Wall- and ceiling decoration in room 1.

only undecorated plaster.<sup>57</sup> The valuable painting system 1 shows a field and lesenes system with an elaborate scroll and a volute border and a rather high stucco frieze.<sup>58</sup> A yellow ceiling with birds, stripes, and scrolls completes the decoration of the prestigious room F4. House J also had a heated room and a similar, but simpler wall decoration that was made probably by the same workshop.<sup>59</sup> It is also red grounded, but the border and the leaves are simpler. At *Immurium*, the houses had heated main rooms with red wall decoration, which was enhanced by the use of different ornaments.<sup>60</sup>

A new find complex from the canabae of *Lauriacum/Enns* comes from a large house with a courtyard.<sup>61</sup> Room 1 has three painted layers and shows a harmonization between walls and ceilings, and a change of the hierarchy of the room during the third century (Fig. 5).<sup>62</sup> The first phase had a monumental drapery on the main zone of the wall, which is an uncommon motif in third century wall painting.<sup>63</sup> The ceiling decoration combined a wallpaper pattern with a polychrome center surrounded by a small scaled *velum*.<sup>64</sup> The Medusas in the medallions are apotropaic and a common motif.

In the second phase the meaning of the room changed, and the wall and ceiling were decorated with a sophisticated polychrome decoration with a mythological program and figures. The ceiling has fake sculptural leaf-and-dart molding as frames and high-quality scrolls and other ornaments.<sup>65</sup> The architectural wall painting system is the best one in Noricum from this period.<sup>66</sup> In the third phase the meaning of the room was

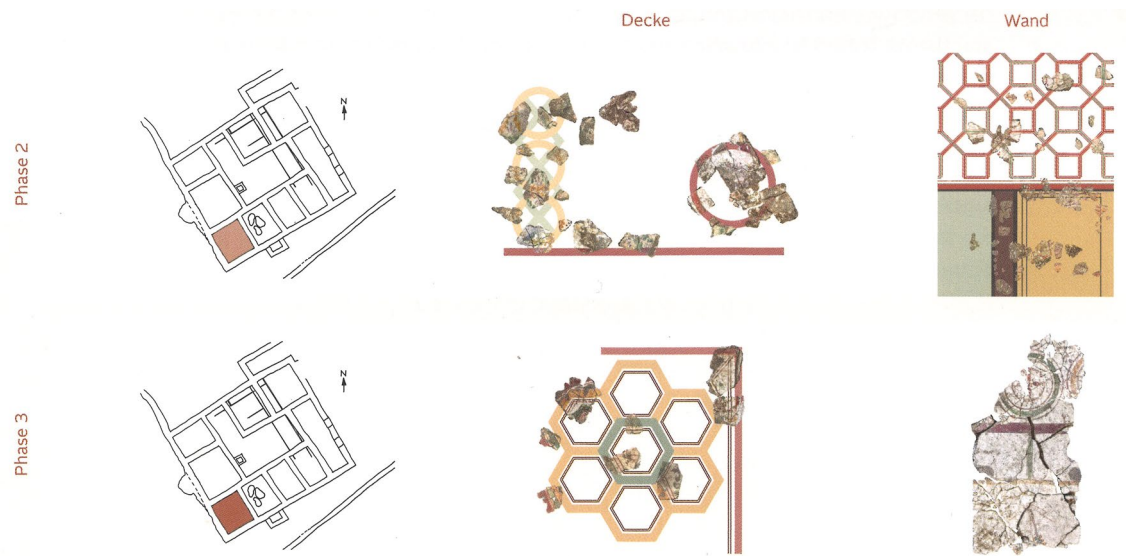


Fig. 6: Lauriacum/Enns/ "House of Medusa": Wall- and ceiling decoration in room 6.

reduced by the use of a white field and lesenes system with simple frames and a deer emblem in the field's center and a white decoration with frames on the ceiling.<sup>67</sup>

Neighboring room 6 shows a similar attitude (Fig. 6). The painted marble imitation on the wall is witness to a high aspiration.<sup>68</sup> The effective wallpaper pattern on wall and ceiling together with the four seasons as the common motif in the medallions<sup>69</sup> seem to form an equivalent rank to the first phase of room 1. In the second phase, the devaluation is articulated by the use of masks as common motifs in the cassettes of the wallpaper pattern on the ceiling,<sup>70</sup> and the white background painting system with frames instead of marble imitation on the wall.<sup>71</sup>

### Summary

Also in the northern province of Noricum we can infer the use of the same parameters for the articulation of room meanings as is found in Ephesus and Palmyra. The corridors use repetitive, paratactic painting systems and mosaics. Main rooms have painting systems and/or mosaics with a central motif. They possess the highest amount of polychromy, rich ornaments, and architectural painting systems. We find figural motifs and mythological programs on ceilings, mosaics, and stucco friezes. The architecture of main rooms underlines the meaning by their large size, great height, apse, heating, and vaulted ceilings. Secondary rooms have a reduced color range of mosaics and wall paintings, as well as simplified painting systems and ornaments.

The articulation of room hierarchy in a building depends on the use of the latest painting systems, meaning and rank of the building within the settlement, the quality

of the painters, the preferences of the workshop, the financial resources of the sponsor, and his taste and need for representation.<sup>72</sup>

Despite the diversity of houses and local styles, and the different media preferences for stucco, mosaic, and wall painting in the high imperial period, an international code with consistent parameters for the articulation of the hierarchy of rooms is used. This international code adapts the preferred medium and resources of the available workshop and its repertoire, making living with images an essential expression of Roman representation in the home.

### Notes

<sup>1</sup> This article unites results from different projects and is an English version of Tober 2017.

<sup>2</sup> Falzone – Tober 2010, 641–642.

<sup>3</sup> Krinzingner 2002; Zimmermann 2002; Zimmermann 2004; Zimmermann 2014; Zimmermann 2016.

<sup>4</sup> Ladstätter – Zimmermann 2010, 49–75; Falzone – Tober 2010, 635; Apartments 1–2: Rathmayr 2010a; Rathmayr 2010b; Rathmayr 2010c; Rathmayr 2010d; Apartment 4: Thür 2005, 32–100; Apartments 3/5: Adenstedt 2005, 39–74, 91–111, 178–195.

<sup>5</sup> Falzone – Tober 2010, 636 with note 7.

<sup>6</sup> Falzone – Tober 2010, 635 with note 7.

<sup>7</sup> Zimmermann 2005, 112. 116. 212 Pl. 85, 1–5; Zimmermann 2007a, 269.

<sup>8</sup> Zimmermann 2007b, 145; Falzone – Tober 2010, 635–636.

<sup>9</sup> Falzone – Tober 2010, 363 with note 9.

<sup>10</sup> Falzone – Tober 2010, 636 with note 10–11.

<sup>11</sup> Falzone – Tober 2010, 636 with note 13.

<sup>12</sup> Falzone – Tober 2010, 635 with note 14.

<sup>13</sup> Falzone – Tober 2010, 636 with note 15–16.

<sup>14</sup> Strocka 1977, 115–117 fig. 263–265.

<sup>15</sup> Strocka 1977, 109–111 fig. 224–235; Zimmermann 2005, 112–113 Pl. 85, 8–12; Zimmermann 2007a, 269.

<sup>16</sup> Strocka 1977, 124. 126 fig. 297–302. 308–311; Adenstedt 2005, 131.

<sup>17</sup> Zimmermann 2005, 106–109 Pl. 83–84.

<sup>18</sup> Strocka 1977, 124 fig. 297–302; Adenstedt 2005, 131.

<sup>19</sup> Strocka 1977, fig. 221–223; Zimmermann 2005, 107–108 Pl. 83, 7; 84, 3; 87, 1–4; Zimmermann 2007a, 268.

<sup>20</sup> Zimmermann 2007b; Zimmermann 2016, 197–199 Pl. 436 fig. 25; 194–196 Pl. 435 fig. 22.

<sup>21</sup> Falzone – Tober 2010, 636–637 with note 26–29.

<sup>22</sup> Falzone – Tober 2010, 637 with note 31–32.

<sup>23</sup> Falzone – Tober 2010, 637 with note 33.

<sup>24</sup> Falzone – Tober 2010, 637 with note 34.

<sup>25</sup> Falzone – Tober 2010, 641.

<sup>26</sup> Tober 2013; Tober 2014a; Tober in print.

<sup>27</sup> Tober 2013, 239–240; Tober 2014a, 705–706.

- <sup>28</sup> Tober 2013, 221; Tober 2014a, 703–704; Tober 2019, 256–257.
- <sup>29</sup> Tober 2013, 221; Tober 2014a, 704.
- <sup>30</sup> Tober 2013, 238.
- <sup>31</sup> Tober 2013, 229–234.
- <sup>32</sup> Tober 2013, 234.
- <sup>33</sup> Tober 2013, 224–229.
- <sup>34</sup> Tober 2013, 238; Tober 2019, 259–260.
- <sup>35</sup> Tober 2013, 241–244 fig. 226.
- <sup>36</sup> Tober 2013, 247; Tober 2014a, 705.
- <sup>37</sup> Tober 2013, 244.
- <sup>38</sup> Tober 2013, 245–246.
- <sup>39</sup> Tober 2013, 244.
- <sup>40</sup> Tober 2013, 245.
- <sup>41</sup> Tober 2013, 238.
- <sup>42</sup> Tober 2013, 243. 247 fig. 227.
- <sup>43</sup> This is a summary of results discussed in Noricum and Raetia. More examples: Tober 2018.
- <sup>44</sup> Tober 2018, 473–474.
- <sup>45</sup> Gostenčnik 2012, 271–272, 434, fig. 2, 2–3.
- <sup>46</sup> Gostenčnik 2012, 272–273. 436 fig. 4, 1–2.
- <sup>47</sup> Tober 2018, 474; Tober 2014b.
- <sup>48</sup> Tober 2014b, 297 fig. 8.
- <sup>49</sup> Jobst 1982, 65 Pl. 16, 3; Pl. 32, 3.
- <sup>50</sup> Thüry 2014, 190 with note 820.
- <sup>51</sup> Jobst 1982, Taf. 30; Tober 2014b, 298–299.
- <sup>52</sup> Jobst 1982, 47–56; Kovacsovics 1989; Thüry 2014, 183–184.
- <sup>53</sup> Tober 2014b, 300–301.
- <sup>54</sup> Tober 2010; Tober 2015; Tober 2018, 475.
- <sup>55</sup> Höglinger 2017, 121–122 fig. 7.
- <sup>56</sup> Christlein 1963; Tober 2018, 475.
- <sup>57</sup> Fleischer 1968/1971, 186. 188; Fleischer 1998, 36–37; Tober 2018, 475–476.
- <sup>58</sup> Tober 2017, 506 with fig. 3; Tober 2018, 479 Abb. 6.
- <sup>59</sup> Tober 2014c, 435.
- <sup>60</sup> Tober 2018, 476.
- <sup>61</sup> Santner 2017.
- <sup>62</sup> Tober 2017a, 147–149. 164.
- <sup>63</sup> Tober 2017a, 147; Santner 2017, fig. 20; Tober 2017b, 22–23.
- <sup>64</sup> Tober 2017a, 148; Santner 2017, fig. 1–5; Tober 2017b, 3–10.
- <sup>65</sup> Tober 2017a, 148. 154 fig. 4; Santner 2017, fig. 8–19; Tober 2017b, 13–18.
- <sup>66</sup> Tober 2017a, 148; Santner 2017, fig. 21. 23; Tober 2017b, 23–25.
- <sup>67</sup> Tober 2017a, 149. 160 fig. 5–6; Santner 2017, fig. 22; Tober 2017b, 19. 25–26.
- <sup>68</sup> Tober 2017a, 149. 163 fig. 8; Tober 2017b, 26–30.

<sup>69</sup> Tober 2017a, 150. 161 fig. 7; Tober 2017b, 20–21.

<sup>70</sup> Tober 2017a, 152. 170 fig. 9; Tober 2017b, 21–22.

<sup>71</sup> Tober 2017a, 152–153; Santner 2017, fig. 27; Tober 2017b, 30.

<sup>72</sup> See Tober 2018, 483.

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# Geometrical Analysis of the Triple Leaf Pattern in Metropolis

Erhan Aydođdu – Ali Kazım Öz<sup>1</sup>

## Abstract

In this paper, the triple leaf pattern located in the floor mosaics of the Reception Hall in the ancient city of Metropolis has been analyzed geometrically. It has been determined that the triple leaf pattern considered as a floral pattern was derived from the solution of a problem by means of geometry. In addition, by comparing the abstract state and the actual state of the pattern, the effect of practical necessities arising from the material and workmanship on the pattern has been evaluated. This standard drawing obtained geometrically reveals a stylistic development of the pattern, from the regular leaf pattern to the twisted leaf figure. It has been thought that geometrical studies on mosaics could contribute to studies about the identification of local workshops in Roman period and to conservation practices.

## Özet

Bu çalışmada, Metropolis antik kentinde Resepsiyon Salonu taban mozaiklerinde yer alan üçlü yaprak motifi geometrik olarak analiz edilmiştir. Bitkisel bir figür olarak düşünülen üçlü yaprak motifinin bir geometri probleminin çözümünden türetildiği tespit edilmiştir. Ayrıca, motifin soyut hali ve gerçek durumu karşılaştırılarak materyal ve işçilikten kaynaklanan gerekliliklerin motife etkileri değerlendirilmiştir. Geometrik olarak elde edilen bu standart çizim, düzgün yaprak motifinden bükülmüş yaprak motifine doğru, motifin üslup gelişimini açıklamaktadır. Mozaikler üzerinde geometri çalışmalarının Roma dönemi yerel atölyelerin kimliklendirilmesiyle ilgili çalışmalara ve konservasyon uygulamalarına katkı sağlayabileceği düşünülmektedir.

## Introduction

The triple leaf patterns of the floor mosaics in the so-called Reception Hall in the ancient city of Metropolis (fig. 1) have been chosen as the subject of this paper. The aforementioned mosaic panel contains geometric patterns, human figures, bird and fish figures, and triple leaf patterns. The panel frame and the included geometric patterns were analyzed geometrically. However, the floral figures and human figures in the panel were left out for a separate study, and not included in this analysis. The analysis demonstrated that the panel was created by repeating a simple element pattern in a certain order, and that the complicated geometric patterns are the result of this repetition.<sup>2</sup>





Fig. 1: Mask Mosaic from the Reception Hall.

As it is understood that there is a close relationship between the design of the panel and the knowledge of geometry, the question of whether the triple leaf pattern is also a product of geometric design has arisen. For this reason, the geometric analysis of the triple leaf pattern has been chosen as the principal subject of this study. Another aim of this study is to contribute to the exploration and exemplification of geometry for examining floral patterns, identifying local styles, characterizing common patterns, and to explain the stylistic development of the figures.

The framework of the method used in this analysis involved examining the geometric applications which produce smooth leaf shape, solving the twisting phenomenon, and obtaining the abstract model of the twisted triple leaf pattern. Then, it compared the differences between the smooth leaf model and the twisted leaf pattern to reveal the interaction between the abstract and real state of the pattern. As a result, the analysis determined the effect of practical necessities arising from the material and workmanship.

### **The Mask Mosaic in Metropolis**

Metropolis was an important ancient city located in the center of the Western Anatolian coast (named Ionia in the ancient period) between Smyrna and Ephesus. The quality of its ruins and finds revealed during recent excavations shows that it was just as important as the rest of the cities in the same area. The city's real establishment and development

took place in the Hellenistic period as it was influenced by the Kingdom of Pergamum and enhanced significantly during the Roman period.<sup>3</sup> Although there are technical and stylistic differences in each of these mosaics, it can be generally assumed that the mosaic tradition in Metropolis was enriched during the 3<sup>rd</sup> and 4<sup>th</sup> centuries A.D.<sup>4</sup>

The building identified as the Reception Hall of the Theater is named because of its theatrical symbols.<sup>5</sup> It is located on the eastern side of the Theatre and its floor is decorated with panel mosaics. In fact, the mosaic floor consists of two different panels, one in the center and one on the eastern border. The eastern panel (measuring 2,02 × 3,48 m) is important since it conveys an impression of a Reception Hall. Eight of the eleven figures on this panel consist of bird and fish depictions, while the remaining three figures are theater masks located in the center of the panel. In this way, the aforementioned symbols are related to both the theater and the banquet. The annexes, which functioned as a cellar or a kitchen, support the function of the building. Similar examples of this type of building are found in the Terrace House of Ephesus,<sup>6</sup> and Bau Z in Pergamum.<sup>7</sup>

The middle panel is surrounded by a frame consisting of an intertwined square measuring 2,70 × 3,78 m, which is divided into six equal parts. There is one part in the southeastern area which is not preserved, but the other five parts reveal a workmanship of very high quality with figural mosaics.<sup>8</sup> Many different ideas and suggestions have been presented for the interpretation regarding the motif and the dating of the five figures on the middle panel. According to Recep Meriç, who was the first person to excavate this place, the panels have figures relating to Dionysus<sup>9</sup> or the Four Seasons<sup>10</sup> and can be dated back to the 2<sup>nd</sup>–3<sup>rd</sup> century A.D.

## **Geometric Analysis and Comparison**

### **Preliminary Assessments, Hypothesis and Method**

The mosaic panel contains geometric patterns, human, bird and fish figures, and triple leaf patterns. The panel frame and the geometric patterns have been analyzed geometrically. It has been understood that the panel was created by repeating the element pattern within a certain order, and that the complicated geometric patterns are the result of this repetition.<sup>11</sup> It is obvious that the geometric patterns are the result of the geometric planning. However, the repeated use of plant motifs in the dominant design of geometric planning leads to the question of whether plant figures are the subject of geometric planning.

The triple leaf patterns were placed in semi-octagonal spaces between the geometric patterns (fig. 1). So, the dimensions of the patterns are related to the dimensions of the area allocated to them. On the other hand, just as with the repeating of the element pattern, the triple leaf motifs are also repeated, as if they were produced from a single copy. The preservation of similarity in repetition

indicates that a geometric model was used to make these motifs. For this reason, the hypothesis of this study is the proposition that the design process of the triple leaf pattern utilized a geometric model.

The motifs show deformations due to workmanship and the material used, and the leaf tips are twisted clockwise or counterclockwise. In the determination of the twisting direction, the concern for symmetry is evident. As an exception, it seems that all the leaves are twisted in the same direction in one figure. Therefore, it is understood that the twisting direction could be consciously preferred. If a model had been used in the design of the triple leaf pattern, this model should have features that allow differentiation in the twisting of the leaf tips.

While a regular leaf model is simple, the twisted leaf model is complex. In order to understand the difference between a regular leaf and a twisted leaf, it is necessary to examine geometric applications that produce the regular leaf pattern, to solve the twisting phenomenon, and to obtain the abstract model of the twisted leaf pattern. By comparing the abstract model of the pattern and the actual pattern, the relationships between the theoretical model and the practice can be revealed.

### **Six Leaves Pattern, Twisting Procedure, and Construction of the Twisted Triple Leaf Pattern**

To draw a regular hexagon on a circle, it is required to make six points on the circle with equal distance between them. The positions of these six points on the circle must be detected. A certain center point, a certain radius, and a compass are sufficient for this operation. Let the center point be  $O$ , the radius be  $r$ , and draw a circle by opening the compass' legs up to  $r$ . This circle can be named the main circle. Place the fixed end of the compasses on the main circle without altering the openness of the compasses, and draw a new circle. This circle cuts the main circle at two points. Draw new circles that take these intersection points as their centers. Every single circle that is drawn on the circumference of the main circle cuts the main circle at two points. There are seven circles in total, and their diameters are equal. There are six points of intersection. These points can be marked as  $T_1, T_2, T_3, T_4, T_5, T_6$ . Thus, the distances between successive pairs of points are equal. These six points are the corners of the hexagon (fig. 2).

There are two equilateral triangles, the triangle  $T_1T_3T_5$  and the triangle  $T_2T_4T_6$ . These triangles intersect. These equilateral triangles form a hexagram. Intersecting arches, which are the traces left behind by the compass during the drawing process, constitute a six leaf pattern called a rosette in mosaics (fig. 2). This pattern consists of six regular leaf patterns.

Straight lines, which connect the determined six points on the main circle, constitute a hexagram, a hexagon, two equilateral triangles, and six central beam lines. The intersection points  $A, B, C$ , and  $D$  are the centers of the circles, which are used to convert the floral pattern into a triple leaf pattern. Every leaf of the floral

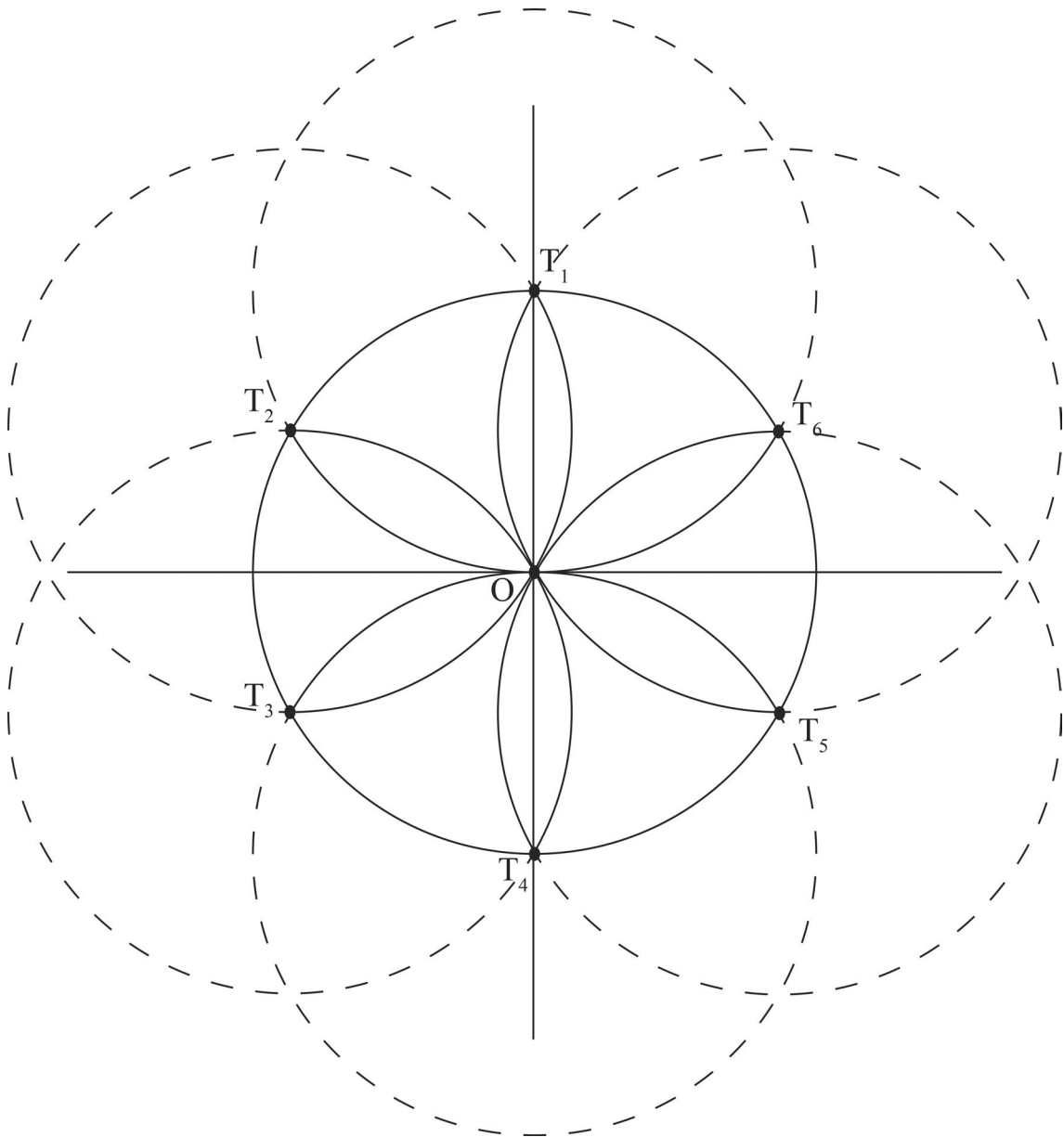


Fig. 2: Geometric Drawing of the Six Leaf or Rosette Pattern.

pattern will bend smoothly from point X. The obtained pattern is the twisted triple leaf pattern (fig. 3).

**Greek Mathematics and the Abstract Model of the Triple Leaf Pattern**

The problem known as trisection of an angle by using only a measureless ruler and a compass is a famous geometry problem of the ancient period.<sup>12</sup> This problem is about

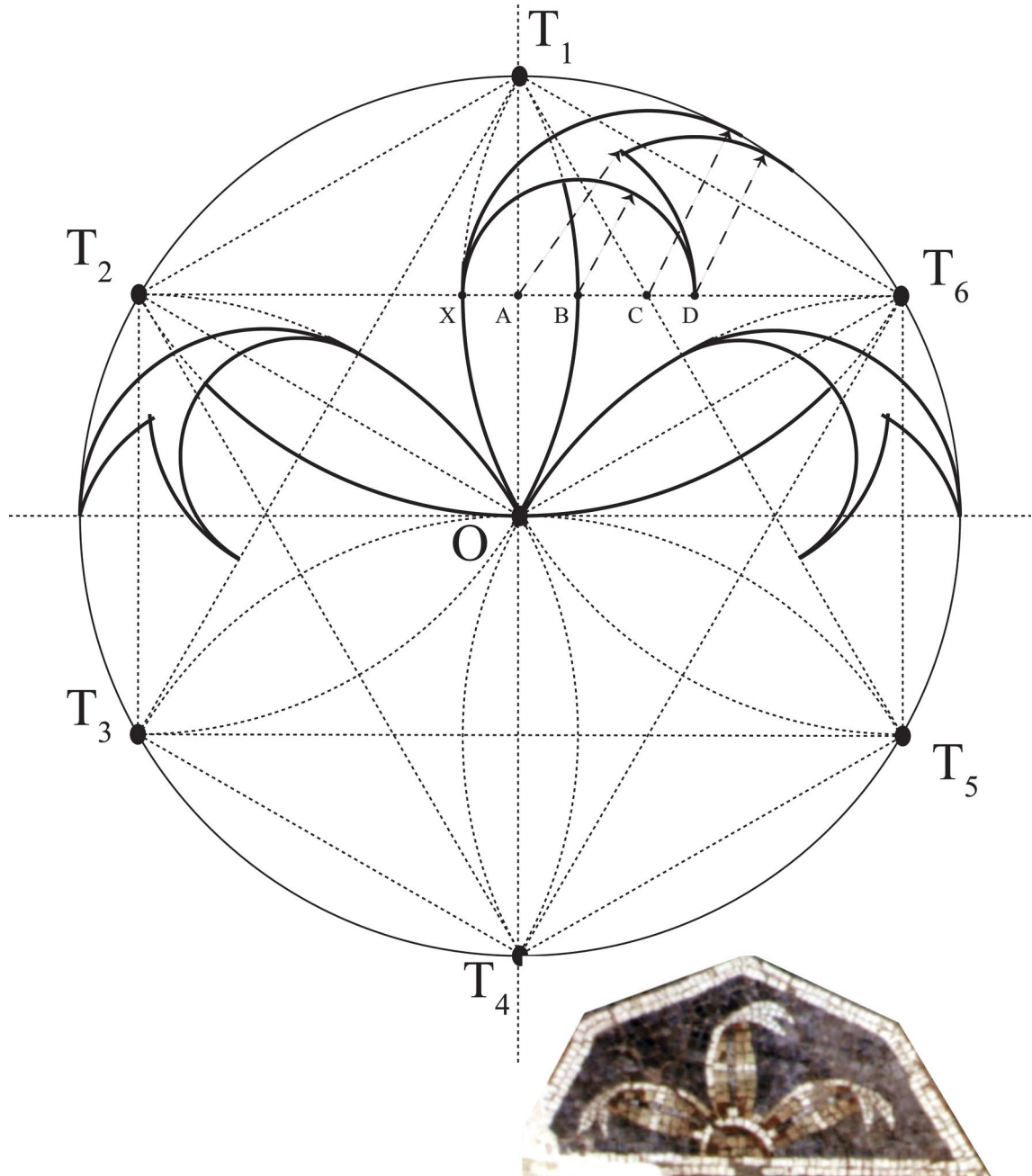


Fig. 3: Geometric Drawing of the Triple Leaf Pattern.

determining the drawing facilities of a ruler and compass. The model used here is the model that proves that the hexagon can be drawn properly using a measureless ruler and compasses. This model represents a regular six leaf pattern. For deriving the twisted triple leaf pattern from the regular six leaf pattern, natural intersection points have been used in the model to determine the diameters of those circles used in the twisting



operation. Namely, it is understood that natural rates were used in the design process, and that there were no numerical calculations. A compass and a measureless ruler are enough for the design.

For a perfect twist, the arch representing the leaf contour must be properly spliced into the arch representing the twisting. At this point, it is notable that another important geometric knowledge is also needed for the twisting operation: for splicing the arcs of two circles, the centers of two circles and the contact point of the arches must be on the same straight line.<sup>13</sup> It is seen that this rule was used professionally in the twisting procedure.

### **Comparison of Abstract Model and Real Pattern**

Operations of the triple leaf pattern and the size of the pattern depend on the radius of the main circle on which the triple leaf pattern is built. This radius depends on the radius of the space allocated to the pattern in the geometric frame. The triple leaf pattern may be protected from deformation by selecting an appropriate radius, or by sliding the figure to fit the space, even if the allocated area is deformed during the tessellation process. It is seen that the semi-hexagonal areas have been deformed, and that the positions and the shapes of the semi-circle cores of the figure have been slightly shifted.

The center of a triple leaf pattern is determined geometrically. According to the theoretical model, leaves must start from the center and extend outward. However, practically, because of the size of the tesserae, it is physically impossible that tessellation starts from the center of the pattern. Placing a semi-circular core on the heart of a triple leaf pattern is a good solution to save the day. In the theoretical model, leaf ends are gradually narrowing. Narrowed zones cannot be laid with tesserae after a certain stage. It is seen that the edge areas have been tessellated to the extent possible, sometimes with a single row of light stones.

It is seen that dark stones were laid vertically along the middle vein of the leaves. The vein surface and vein-free surface, or inner and outer part of the leaf, have also been distinguished by this dark line. This dark colored line is the vertical symmetry axis of the leaf in the geometric model. On the inside of the leaf, there is a horizontal line consisting of light colored tesserae. This horizontal line is the horizontal symmetry axis of the leaf in the geometric model. The interior of the leaves were depicted in dark color, and the exterior surface was tessellated with light colored stones. In the geometric model, the inner and the outer surface are visually distinguishable. It is understood that the geometric model also plays a guiding role for light-shadow separation, color preferences, and artistic operations.

Triple leaf patterns were placed symmetrically on the opposite sides of the main frame. The leaves were bent to different directions, except for one figure. This situation indicates that the twisting procedure was well known and skillfully used, thanks to a geometric model that was open to preferences regarding the bending direction. The results support the hypothesis.

### Conclusion

The abstract model of the triple leaf motif considered as a plant figure was obtained and a standard drawing method was determined. The abstract model of the pattern overlaps with the drawing method used in the proof procedure related to one of the famous problems of ancient Greek mathematics. It has been shown that this figure was derived from the pattern known as a rosette, by applying the twisting phenomenon in accordance with geometric rules. The twisting phenomenon provides an analytical explanation for the stylistic development of the floral patterns, and represents an example of the transition from a two-dimensional figure to a three-dimensional figure.

This study has revealed that the abstract model was used as a guide in the color transitions, in determining the separation lines between light-shadow zones, in the laying of tesserae lines, in determining the figure dimensions and boundaries, and in similar artistic operations. It has been seen that the size of the tesserae is an effective physical factor in the application process, and that there are differentiations from the abstract model in the ever-narrowing regions of the figure due to the effect of tesserae size. That compensatory maneuvers were used in the junction areas of the narrowing regions has been observed.

If the information conveyed by Vitruvius, that mosaicists were using only a ruler, compasses, and spirit level<sup>14</sup> is also taken into account, it is obvious that the studies about geometry influenced mosaicists both in theory and in practice. Therefore, it is evaluated that geometric studies on mosaics can contribute to the examination of floral patterns and also human figures,<sup>15</sup> to identify local styles, to characterize common patterns, and to explain the stylistic development of the figures. In addition, it has been thought that geometric studies on mosaics could contribute to studies concerning the identification of local workshops in Roman period and to conservation practices.

### Notes

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<sup>2</sup> Öz – Aydoğdu 2016.

<sup>3</sup> Aybek et al. 2009, 39.

<sup>4</sup> Öz 2012a, 147.

<sup>5</sup> Meriç 1999, 336.

<sup>6</sup> Lang-Auinger 1996, 205.

- <sup>7</sup> Radt 1988, 102.  
<sup>8</sup> Öz 2012b, 703.  
<sup>9</sup> Meriç 2004, 99.  
<sup>10</sup> Parrish 2007, 19.  
<sup>11</sup> Öz – Aydoğdu 2016.  
<sup>12</sup> Heath 1921, 235–244.  
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# Making Roman Mosaics in Aquileia (I BC – IV AD): Technology, Materials, Style and Workshop Practices. Two Case Studies from the *insula della Casa delle Bestie Ferite*

Cristina Boschetti – Simone Dilaria – Claudio Mazzoli – Monica Salvadori

## Introduction

The study of Roman mosaics is traditionally dominated by an aesthetic and stylistic approach. During the last couple of decades, a new interest for the material aspects has started to emerge, opening different perspectives of study and interpretation.<sup>1</sup> This material-based approach is particularly effective for investigating the economic aspects of mosaics and for assessing their social value. High-end mosaics are likely to combine a complex decorative project, with the use of expensive materials, like marble or glass *tesserae*. However, determining the high quality is difficult and involves the evaluation of a combination of factors. An accurate mosaic project starts from designing and building appropriate foundations and beddings and continues with the creation of the surface. The elements that we need to assess accurately include the identification of the materials used in the construction of the mosaic and their distribution, the evaluation of the accuracy in cutting and laying the *tesserae*, and the care taken in planning the decoration and respecting the drawing.

This comprehensive analysis of mosaics is particularly important for the study of decorations in domestic contexts. Here, spaces paved by mosaics and used for the reception of the guests play a key role in the decorative project of the building. These mosaics were a proper means of communication, expressing the social status of the owner. Looking at the details of tessellata floors, we discover that mosaics covering large surfaces with figural decorations, surely made to impress, are not always accompanied by a high technical quality.

In this paper we present the results of the application of this methodological approach, by investigating two mosaics excavated at the site of Aquileia, at the *insula della Casa delle Bestie Ferite* (*insula* of the House of the Wounded Beasts) (fig. 1).

C.B.

With the *insula della Casa delle Bestie Ferite*, we refer to a sector of the ancient town in which different housing contexts are present. These were first investigated in the early sixties,<sup>2</sup> and the University of Padova has directed stratigraphic excavations here since 2007. The plan and phases are still being defined, but the lifespan of the houses can be initially split into three main periods.<sup>3</sup> The first building and decorative phase can be dated between the middle-late 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD. Later, during the 2<sup>nd</sup> century, the organization of the spaces was only partially modified, due to some limited building activities. In detail, some floors were re-decorated, as attested by new mosaics



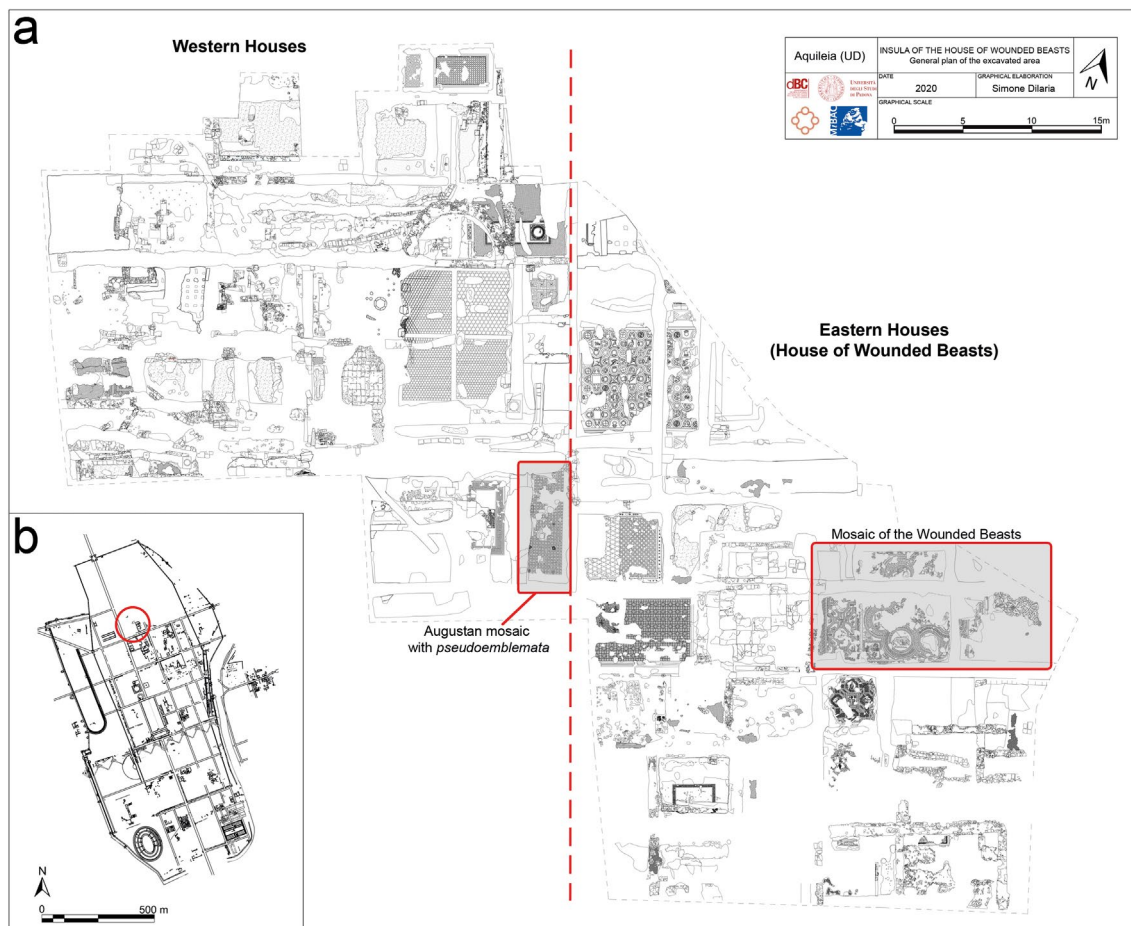


Fig. 1: a) Plan of the archaeological area of the *insula della Casa delle Bestie Ferite*, with reference to the two analysed mosaics; b) Plan of Aquileia with the indication of the *insula della Casa delle Bestie Ferite* area.

laid on revetments of the first phase. Finally, during the 4<sup>th</sup>–5<sup>th</sup> century, the houses were object of a major reconstruction. This change reflects new social and economic developments, due to the Imperial influence on the town administration. In this period, Aquileia is interested by important building interventions, such as the creation of the Constantine Baths in the western sector of the town.<sup>4</sup>

S.D., M.S.

## Materials and Methods

The mosaics discussed here were analyzed in their whole building process, from the setting of the foundations to the laying of the surface. Our methodology integrates the on site examination of the pavements,<sup>5</sup> with petrographic analyses performed on representative samples of *tesserae*. Bedding mortars and concretes were sampled and

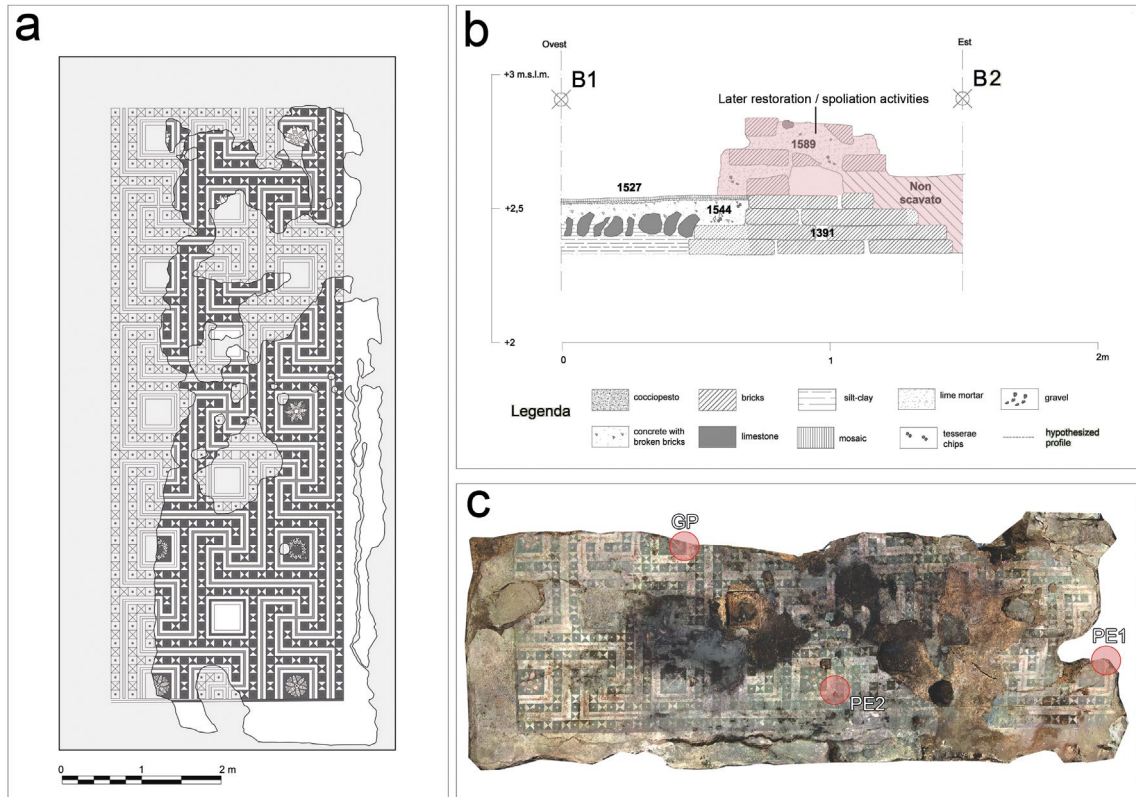


Fig. 2: a) Reconstruction plan of the Augustan mosaic with *pseudoemblemata*; b) Section B-B1 of the Augustan mosaic with *pseudoemblemata* and eastern closing wall; c) Orthophoto of the Augustan mosaic with *pseudoemblemata*, with indication of the sampling points (see tab. 1 for codes).

investigated by means of different analytical techniques (Optical Microscopy, XRPD, SEM-EDS) and the results are discussed in a previous publication.<sup>6</sup> The data will be mentioned again here to produce a coherent discussion of the constructive techniques.

C.B., S.D., C.M.

### Case Studies

#### Augustan Mosaic with *pseudoemblemata*

The first case study is the earliest *tessellatum* of the house and was selected in order to represent significantly the way of making mosaics at Aquileia at the end of the 1<sup>st</sup> century BC. The mosaic paved a rectangular reception room and was decorated by a pattern of meanders, interrupted by square figural panels (*pseudoemblemata*). The figural panels alternate images of polychrome flowers and laurel garlands crossed by spears, against a black background (fig. 2a). This geometric scheme finds parallels in a consistent number of early occurrences from central Italy and is attested in northern Italy since the reign of

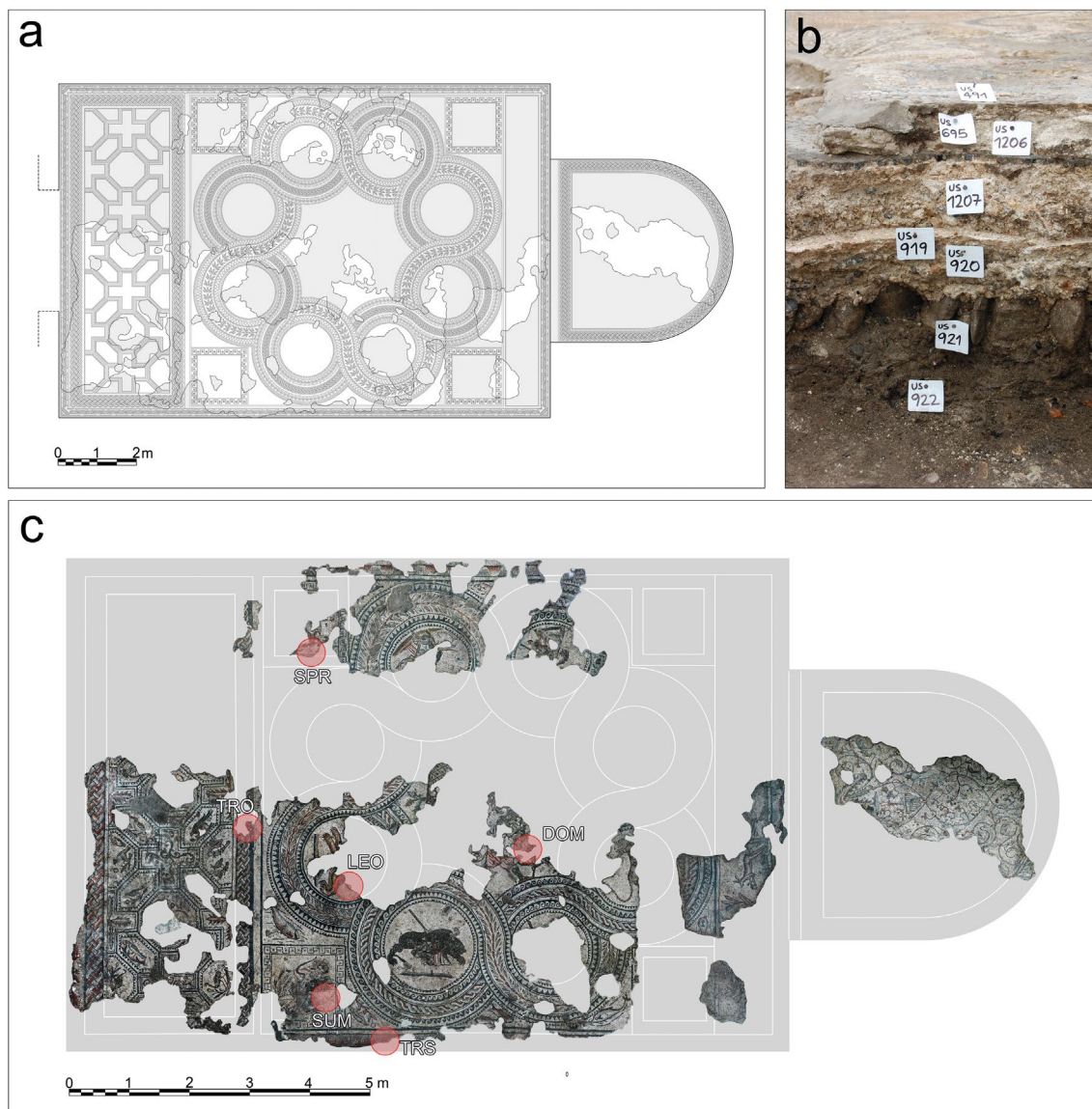


Fig. 3: a) Reconstruction Plan of the Mosaic with Wounded Beasts; b) Exposed prospect of the bedding sequence of pavements; c) Orthophoto of the Mosaic with Wounded Beasts with reconstruction of the decoration patterns and indication of the sampling points (see tab. 1 for codes).

Augustus.<sup>7</sup> If the flowers are popular subjects, rooted in the Hellenistic tradition,<sup>8</sup> while the garlands crossed by spears have a typically Roman connotation. The latter were identified as *signa militaria*, military decorations attributed to the *dominus* during his military career. According to this interpretation, these decorations become an important element for attributing to this mosaic a character of self-celebration.<sup>9</sup>

### Mosaic of the Wounded Beasts

In order to represent the 4<sup>th</sup> century monumentalisation of the house, we selected the mosaic paving of the most important room of this phase: a nearly 100 m<sup>2</sup> reception hall with a raised circular apse. Rooms of this kind were used as dining space and reflect the new late antique habit of dining sitting around the *sigma*, a half-circular table, placed in the apse (fig. 3a).<sup>10</sup> The decoration of this mosaic is very complex and combines the geometric scheme articulating the space with a multitude of figural elements, including birds, fishes, and beasts. A badly preserved hunting scene, likely representing the *dominus*, decorated the central part of the room and was surrounded by circular medallions, which were filled by figures of wild exotic beasts, wounded by spears (fig. 3). At the corners, four squares were decorated with the images of the Four Seasons. The apse was fully covered by a network of vine tendrils, with a parrot in a cage, hanging in the centre.<sup>11</sup>

C.B.

### Foundations and Bedding Characterization

As frequently attested in the first construction phases of Aquileia, the Augustan mosaic with *pseudoemblemata* was laid over a 50 cm thick silty-clay foundation dump, placed in order to raise the floor from the natural ground level and protect it from soil moisture.<sup>12</sup> The mosaic was realized in strict synergy with the house construction (fig. 2b). Above the foundation is a layer of loose limestone shards and brick fragments that function to insulate and drain the area;<sup>13</sup> this layer has a thickness corresponding to the brick foundation of the closing walls (ca. 10 cm), while the screed deliberately extended above the wall grade planes. This has an overall thickness of around 10 cm and can be distinguished by (fig. 4a): a) a layer of concrete with broken bricks<sup>14</sup> (around 7–8 cm thick), made of a mixture of *terracotta* fragments and lime, with the sporadic occurrence of fine/medium gravel<sup>15</sup> and the frequent inclusion of discarded *tesserae* chips.<sup>16</sup> The binder/aggregate (B/A) ratio of this mixture is 1 : 3; b) a layer of *cocciopesto*<sup>17</sup> (around 1.5 cm thick), characterized by a mixture of small *terracotta* fragments and lime. The B/A ratio of this is 1 : 1.5; c) a thin *tesserae* setting bed<sup>18</sup> (ca. 0.1 cm thick), composed of pure lime and the sporadic occurrence of sparry calcite.

Figural panels, which are made *in situ* and can be considered as *pseudoemblemata*,<sup>19</sup> are set on finer bedding mortar, as “layer b” is here composed of lime mixed with finely grinded *terracotta*.<sup>20</sup> This results in a uniform layer which allows for a more precise setting of the *tesserae* for the finer figurate parts of the mosaic.<sup>21</sup>

Therefore, the sequence of layer of loose stones and bricks, screed “layer a” and “layer b”, strictly matches the *statumen*, *rudus*, and *nucleus* layers described by Vitruvius,<sup>22</sup> while the *tesserae* setting bed is not reported in the ancient literature. The characterization of the mortars also has demonstrated how the compositional binder/aggregate ratio of 1:3 of the *rudus* (layer a) could be strictly correlated with



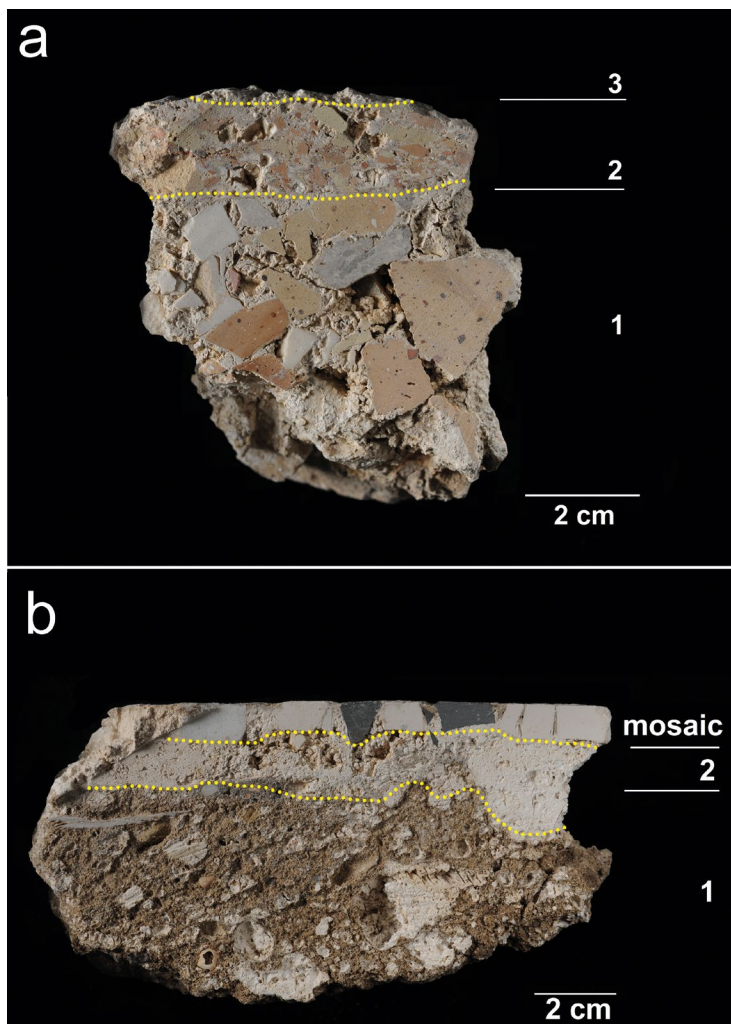


Fig. 4: a) Sample of screed layers for the Augustan mosaic with *pseudoemblemata*;  
 b) Sample of the screed layers of the apse of the mosaic with Wounded Beasts.

Vitruvian recipes,<sup>23</sup> while the slightly thicker ratio of 1 : 1.5 of the *nucleus* (layer b) reflects the optimal proportions for mortar layers with reduced thickness.<sup>24</sup> However, the overall thickness of 30 cm reported in ancient literature for mosaic beddings, split in around 22 cm (3/4 of a Roman feet) for the *rudus* and 11 cm for the *nucleus* (six fingers),<sup>25</sup> did not find any comparison with the overall thickness of 10 cm for both the layers documented in the present case study.

The Mosaic with Wounded Beasts, on the other hand, is directly laid over a previous one dated to the 2<sup>nd</sup>–3<sup>rd</sup> century AD (fig. 3b).<sup>26</sup> The pavement in the apse and in the northern portions of the rectangular hall, extends over the limits of the room of the previous phase and it is directly set on a soil dump, with no *statumen* layer. The bedding

is composed of (fig. 4b): a) a gray friable lime mortar, varying in thickness from 2 to 6 cm, with a lean binder/aggregate ratio of 1:3, and an aggregate represented by locally sourced silicate and carbonate sand. Lime lumps and calcination relicts are frequent and macro-pores are recurrent, raising the mortar's crumbliness. The presence of clay in traces demonstrates that the sand was not properly washed before the use; b) the *tesserae* setting bed is made of pure lime plaster, with a thickness varying from 0.5 to 1 mm.

There are no correspondences in the ancient literature for such a mosaic bedding technique.

S.D.

### ***Tesserae* Layout**

The analysis of the bedding of the Augustan mosaic revealed the traces of a very accurate work. This character is reflected by the way the decoration was designed and how the *tesserae* were laid. The geometric scheme was carefully planned and adapted to the shape and size of the room. This scheme was perfectly respected, as shown by the absence of mistakes or incongruences in the decoration. In the geometric parts, the size of the *tesserae* is very regular. Challenging passages, like the junctions at the angles, are always resolved adopting the same technical solution (fig. 5a). The white band between the end of the geometric motif and the wall is filled by perfectly aligning *tesserae* laid in parallel rows. The same care can be observed in the figural panels, where the *tesserae* are cut and laid in order to maximize the pictorial effect of the figures, creating lines varying in thickness that imitate the effect of brush-strokes (fig. 5b). The passages between one colour and the other are made by juxtaposing rows of *tesserae* of different colours. In some particularly well-preserved portions, some remains of the finishing surface are still visible. The gaps between the *tesserae* were filled by stucco and, finally, the whole surface was polished. To reinforce the colour of the pink bands of the meander and to minimize the disturbing effect of the white colour of the joints, the stucco was coloured applying a red pigment on the surface (fig. 5c).<sup>27</sup>

If the *tesserae* of the Augustan mosaic were laid very accurately, the mosaic with Wounded Beasts reveals a completely different way of working. As already observed, the large surface of the floor was paved without paying too much attention to the details of the decoration schemes and drawings.<sup>28</sup> The layout of the *tesserae* is inaccurate, resulting in an irregular *andamento* (fig. 5d). The plain backgrounds are made with frequent and unpredictable changes of direction. In the figural parts, the contribution of artisans with very different technical skills can be clearly recognised. Glass *tesserae*, surely the most expensive material used for this mosaic decoration, are all concentrated in the better-executed parts of the mosaic.

C.B.



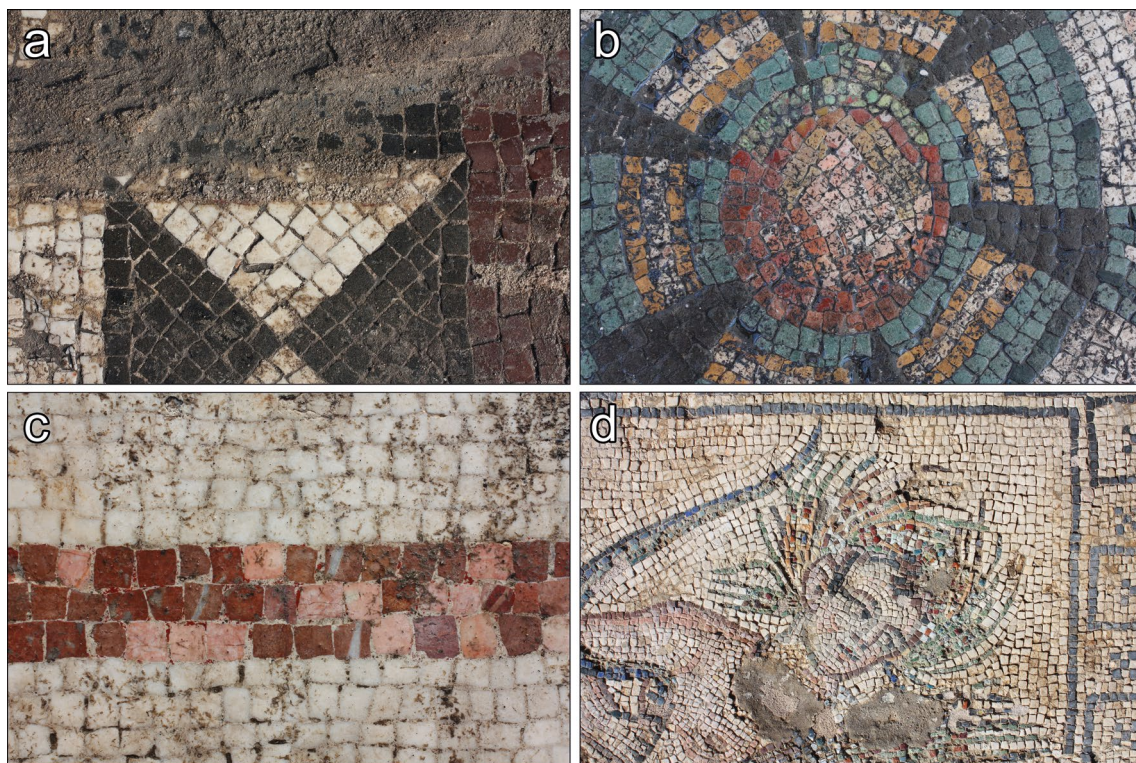


Fig. 5: a) Augustan mosaic with *pseudoemblemata*: a close-up detail of the geometric decoration of the mosaic. The *tesserae* are laid accurately, with the result of a very homogeneous mosaic texture; b) Augustan mosaic with *pseudoemblemata*: a close-up detail of one of the flowers, decorating the panels. The *andamento* of the *tesserae* suggests the movement of a painted surface; c) Augustan mosaic with *pseudoemblemata*: a close-up detail of the mosaic, preserving the surface finishing. The gaps between the *tesserae* are filled with stucco and the joints of the red line are painted in red; d) Mosaic with Wounded Beasts: a detail of the panel depicting the personification of Summer. The chaotic *andamento* of the *tesserae* is well visible in the white background, where we can observe several changes of direction in the layout.

### Petrographic Characterization of the *tesserae*

A set of 46 *tesserae* from the Augustan mosaic with *pseudoemblemata*, and 36 *tesserae* from the mosaic with Wounded Beasts were collected and petrographically analysed under optical microscope (tab. 1). Samples were taken from different portions of the pavements, including the figural panels, the geometric decorations, and the background (fig. 2c; fig. 3c). 3 discarded *tesserae* chips came from the screed of the Augustan mosaic and were analysed for comparison with those used in the pavement surface. The analysis allowed to define the petrographic characteristics of the *tesserae* and to discuss the provenance of the relative rock types. However, in many cases the evidence is missing

regarding whether the stones were intentionally quarried for cutting mosaic *tesserae* or were reused from blocks and slabs originally destined for other building activities.

In both mosaics, the majority of the analysed *tesserae* were realized from locally quarried stones.

Trieste Karst and the Aurisina district are the quarry basins of white limestones widely employed in Aquileia.<sup>29</sup> *Tesserae* realized with these rock types are frequent in both the analyzed mosaics (fig. 6d; fig. 7d) and probably represent the reuse of blocks primarily employed in architecture and statuary.

Pink and red *tesserae* were cut down from stones imported from the Veneto Prealps. Petrographically, they are wackestones and mudstones belonging to the “Scaglia Rossa” and “Rosso Ammonitico” formations (figs. 6c, f; fig. 7a). These formations, which also crop out in numerous localities of the Apennines,<sup>30</sup> provided the raw materials for the preparation of the *tesserae* for several mosaics such as those in Desenzano (Veneto) and Brescia (Lombardy).<sup>31</sup> The white Aurisina stones are mainly grainstones and rudstones; these rock types were used in Aquileia for paving the courts of houses, public buildings,<sup>32</sup> and for gravestones.<sup>33</sup>

It is more difficult to define the geographical origin of the rock types employed for the black and grey *tesserae* made of mudstones due to the lack of diagnostic fossiliferous assemblages in most of the samples. The provenance from the Pontebba of Forni di Sopra districts in the Carnic Alps have been reported for the *tesserae* employed in mosaics from the area located north of the “Porto Fluviale”.<sup>34</sup> The black mudstones used in the studied mosaics were quarried probably from the Trieste-Istrian Karst region, as recognized for *tesserae* employed in the mosaics of Emona, Mošnje, and Izola.<sup>35</sup> In particular, the sample from the “Spring” season in the mosaic with Wounded Beasts (fig. 7b) strictly matches the microfacies B1 of some *tesserae* of the mosaics of Slovenia.<sup>36</sup> Less probable is a provenance from the Lower Cretaceous layers east of the Brenta river, as was identified for black *tesserae* in the mosaics of Asolo.<sup>37</sup>

Other rock types certainly were imported. Black *tesserae* of Campanian tephrite (fig. 6a) and yellow *tesserae* of Giallo Siena Marble (fig. 6e) are documented only in the Augustan mosaic with *pseudoemblemata*. This represents the first example of their use at Aquileia. In the *pseudoemblemata*, white *tesserae* are generally made of a fine-grained marble, characterised by the presence of rare euhedral albite crystals, a feature typical of the Lunense (Carrara) marble (fig. 6b). However, more detailed studies are required for the precise identification of their provenance. In addition, *Marmor Numidicum*, a crystalline limestone imported from Tunisia, is also attested in the mosaic with Wounded Beasts (fig. 7c), where also Biancone limestone is used for the light yellow and pink colours. Finally, fragments of pottery and bricks have been used for the preparation of some red and yellow *tesserae* (figg. 7e, f) in the mosaic with Wounded Beasts, while these materials are absent in the Augustan mosaic with *pseudoemblemata*.



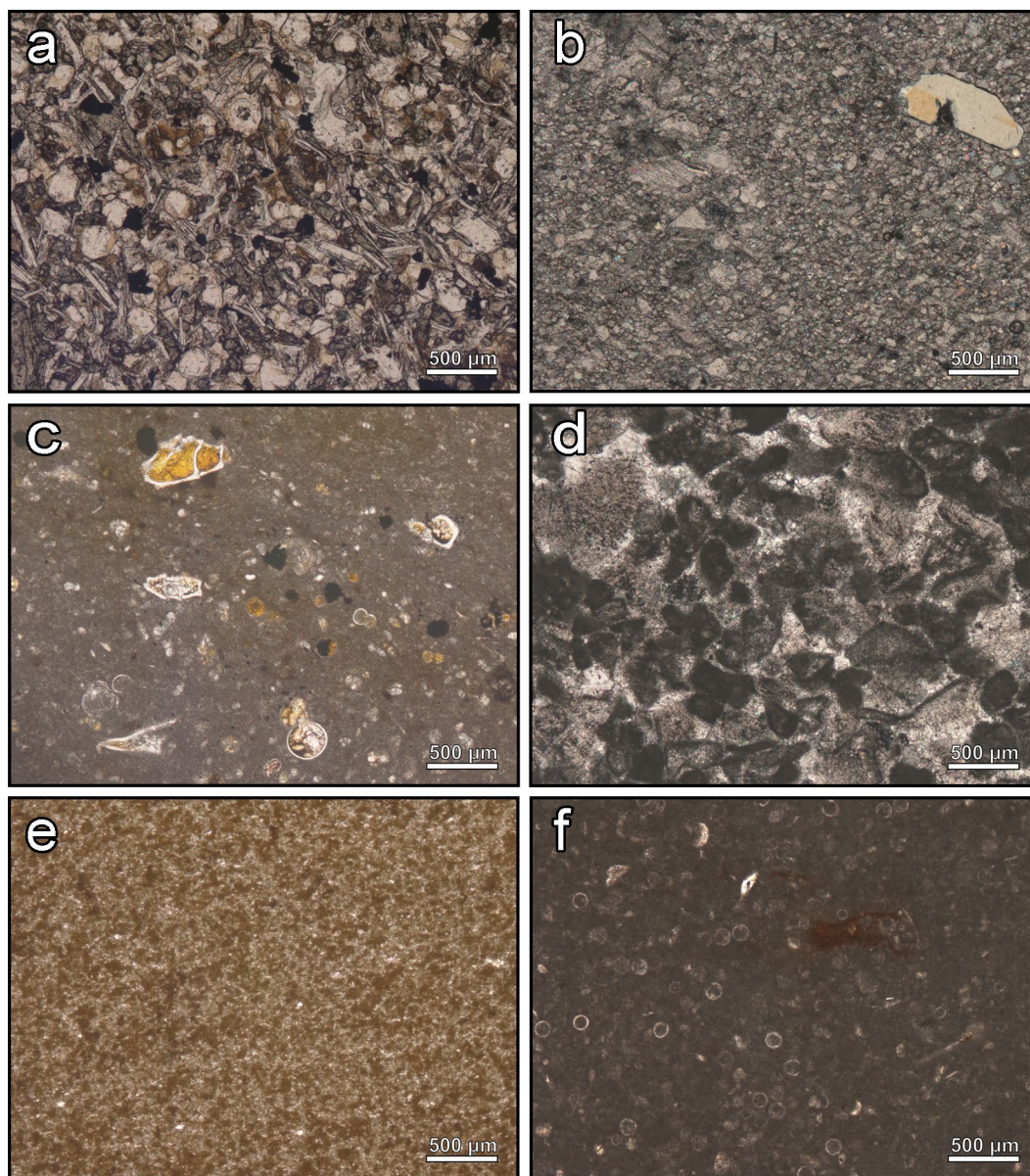


Fig. 6: Micro-photograph of representative *tesserae* from the Augustan mosaic with *pseudoemblemata* (for sampled area see fig. 2c); a) Black tephrite *tessera* from PE2; b) White mylonitic Lunense marble from PE2; c) Scaglia Rossa wackestone from PE2; d) Aurisina grainstone from GP; e) Giallo Siena marble from PE2; f) Rosso Ammonitico wackestone from GP.

In relation to spatial distribution of *tesserae* lithotypes, white Aurisina limestone *tesserae* are common in the geometric portions of the Augustan mosaic with *pseudoemblemata*, while there is a prevalent use of Lunense and Giallo Siena marbles in the panels. Black tephrite *tesserae* are homogeneously employed in both the



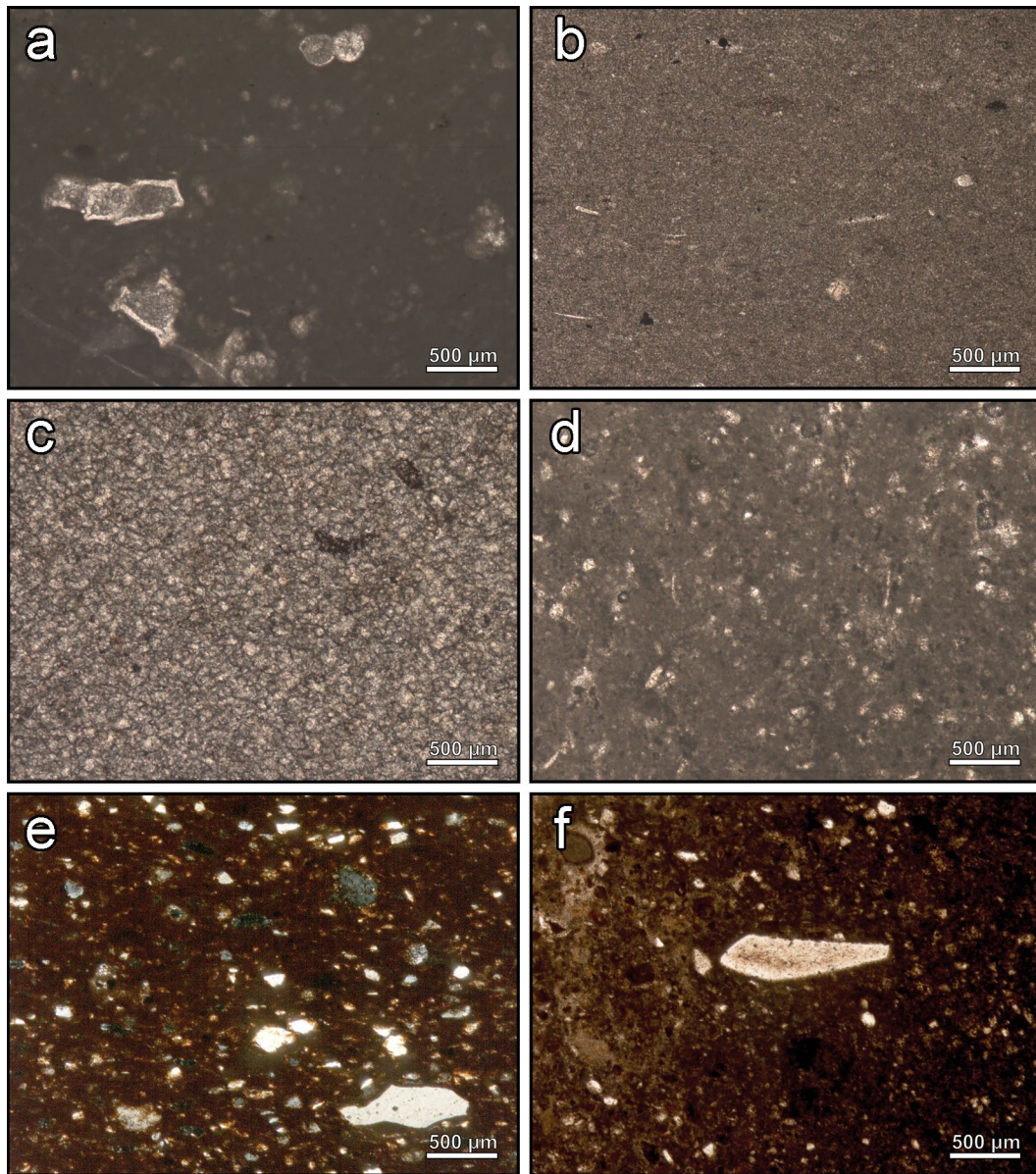


Fig. 7: Micro-photograph of representative *tesserae* from the mosaic with Wounded Beasts (for sampled area see fig. 3a); a) Scaglia Rossa wackestone from SUM panel; b) Mudstone microsparite with rare Ostracod shells and planktonic foraminifera from SPR panel; c) Giallo Antico marble (*marmor numidicum*) from SUM panel; d) Wackestone of the Trieste Karst region from TRO; e) Ceramic fragment from TRO; f) Brick fragment from TRO.

figurative and geometric portions of the mosaic. In the mosaic with Wounded Beasts, the yellow-red ceramic *tesserae* are mainly used in the guilloche decoration, but they are also sporadically present in figurative panels, where *tesserae* made of Rosso

Ammonitico, Scaglia Rossa or even Biancone limestones are prevalent. Other colored limestones, such as *Marmor Numidicum* are attested only in figurate portions.

C.M., S.D.

### Conclusions

This study shows how complex artefacts, for instance mosaics need to be analysed by adopting an organic approach, which comprehensively investigates each part. Partial investigations could lead to incomplete interpretations and misleading conclusions.

The technical and petrographic analysis of the two mosaics yielded new elements for advancing hypotheses on the origin of the workshops that made them. It also allowed us to open a window on the technical know-how of mosaic workshops active in Aquileia at the beginning and at the end of the Empire. During this broad period of time, the way of working appears to have radically changed.

The use of local rock types is common in both the mosaics and it does not seem to be an index of a particular value. Workshops making mosaics in Aquileia were likely sourcing most of their materials from the local market, where building and ornamental stones from the nearby region were available. What makes the difference in the two case studies analyzed here are the most unusual materials, which needed to be imported. The identification of Campanian tephrite and Giallo Siena in the Augustan mosaic with *pseudoemblemata* is likely linked to the provenance of the workshop which made it. This mosaic is a high-quality product and appears isolated in the context of 1<sup>st</sup> century BC Aquileia. It is therefore possible that a workshop from central or southern Italy moved to the North-East following the increasing demand connected to the urban expansion of the region. Artisans likely brought rock types (probably roughly cut into slabs) to Aquileia to make the mosaic decoration. These non-local materials were reserved to the complex *pseudoemblemata*. At the same time, locally quarried stones (mainly white and pink limestones) were used in the geometric decoration, the less prestigious part of the mosaic.

The mosaic with Wounded Beasts was a pretentious, but not perfectly executed mosaic. The bedding construction cannot be considered adequate, if compared to the late antique tradition,<sup>38</sup> which substantially perpetrates Vitruvian precepts. The extensive use of cheap and easily available *terracotta* for most of the red and yellow *tesserae* is accompanied by a limited use of marbles randomly laid together with different types of local limestones. Finally, observing the distribution pattern of these materials in the mosaic, we have reason to think that the *tesserae* were sourced as reused materials. The same pattern of supply was already observed for the glass *tesserae* used in this mosaic.<sup>39</sup>

C.B., S.D.



Mosaic with <i>Pseudoemblemata</i>				
Colour	Petrographic description	Provenance	Mosaic portion	n. of tesserae
white	Pelmicrite with rare Ostracods and planktonic porcelaneous foraminifera. Porosity is sealed by sparry carbonate cement.	Istrian region	GP	1
	Medium-grained (MGS = 1 mm) weakly lineated white marble with homogeneous texture and curved to embayed grain boundaries.	Pentelic or Lunense (Carrara)	GP	1
	Highly compacted grainstone with deeply fragmented Rudist and Echinoderm shells in a micritic matrix.	Aurisina	GP	1
	Grainstone with abundant fragments of Rudists, Echinoderms and peloids in a sparry carbonate cement. Rare foraminifera (Textularids) are present. Porosity is low.	Aurisina	GP	2
	Rudstone with abundant fragments of Rudists in a partially recrystallized microcrystalline matrix.	Aurisina	<i>rudus</i>	1
	Micritic grainstone with abundant micritised foraminifera; among them, Miliolids, <i>Brokeina</i> , <i>Nezzazata</i> , <i>Precrysalidina</i> , <i>Moncharmontia</i> have been recognised.	Aurisina	<i>rudus</i>	1
	Very fine grained marble with coarser portions characterised by twinned calcite crystals, probably a mylonitic facies of a coarser marble. Rare euhedral crystals of albite are also present.	Lunense (Carrara) (?)	PE1 PE2	5 6
black	Leucite-bearing tephrite with aegirine-augite clinopyroxene and olivine phenocrysts in a plagioclase-clinopyroxene-leucite-opaque minerals matrix.	Montefiascone Volcanic Complex or Somma-Vesuvio	GP PE2	3 11
red	Wackestone with abundant bioclasts of Dasyclad algae ( <i>Clypeina</i> ?) and peloids. Locally fenestrae and fractures are sutured by a sparry carbonate cement.	Trieste Karst region	GP	2
pink	Wackestone with Calpionellids ( <i>Calpionella alpina</i> ), Ostracods, and Dasyclad algae probably of the gender <i>Clypeina</i> .	Upper Rosso Ammonitico Formation (Asiago)	GP	1
	Mudstone with rare ghosts of micritised bioclasts (Gastropods, foraminifera, Dasyclad algae. Rare fenestral cavities and fractures are cemented with sparite.	Rosso Ammonitico Formation	GP	1
	Wackestone with abundant foraminifera. Bioclasts of <i>Globotruncana</i> are often filled with iron hydroxides, probably derived from glauconite oxidation.	Scaglia Rossa Formation.	PE2	2
yellow	Highly compacted grainstone with deeply fragmented bioclasts in a sparry carbonate cement. Porosity is low.	Aurisina	GP	1
	Carbonate-rich siltstone with evident tractive textures.	Unknown	<i>rudus</i>	1
	Extremely fine grained micritic limestone uniformly spotted with tiny iron hydroxides.	Giallo Siena (?)	PE1 PE2	5 4

Tab. 1: *Tesserae* samples petrographic description (see fig. 2c and 3c for sampling area). PE1 = *pseudoemblema* 1; PE2 = *pseudoemblema* 2; GP = Geometric portions; TRO = Western guilloche decoration; TRS = Southern guilloche decoration; LEO = Lion panel; SUM = Summer panel; DOM = *dominus* panel; SPR = Spring panel.

Mosaic with Wounded Beasts				
Colour	Petrographic description	Provenance	Mosaic portion	n. of tesserae
white	Medium-grained (MGS = 2 mm) white marble with partially heteroblastic texture and curved boundary shapes. Rarely plagioclase euhedral crystals are present.	Thasian or Lunense (Carrara)	SUM	1
	Bioclastic grainstone with abundant shallow water benthic foraminifera and algal fragments. Among bioclasts, Miliolids, <i>Moncharmontia apenninica</i> , <i>Broeckina sp.</i> , <i>Dicyclina</i> and <i>Thaumatoporella parvovesiculifera</i> are present.	Cenomanian, Trieste Karst region	TRS	1
	Grainstone with heavily micritised bioclasts of difficult identification in a sparry carbonate cement. Miliolids and algal fragments (probably <i>Thaumatoporella</i> ) can be recognised.	Trieste Karst region	TRO	1
	Wackestone with rare fragments of Dasyclad green algae, sponge spicules, Ostracods, calcispheres, calcified Radiolarians.	Trieste Karst region	TRO	1
	Wackestone with rare sponge spicules, fragments of Dasyclad green algae ( <i>Clypeina</i> ), <i>Thaumatoporella parvovesiculifera</i> , and planktonic porcelaneous foraminifera.	Trieste Karst region	SPR	2
	Wackestone with rare fragments of Ostracods, benthic foraminifera and calcispheres.	Trieste Karst region	SPR	1
	Wackestone with rare fragments of Dasyclad green algae, Ostracods, Echinoderms and calcispheres.	Trieste Karst region	DOM	1
	Wackestone with ghost fragments of Echinoderms and Rudists with bioturbation patterns. Calcispheres and unidentified foraminifera are also present.	Trieste Karst region	LEO	1
black	Bituminous Carbonaceous microsparite lacking bioclasts	Unknown	TRO TRS DOM LEO	1 1 1 2
	Microcrystalline equigranular highly diagenetised grainstone with rare larger twinned calcite crystals	<i>Giallo antico (marmor numidicum)</i>	DOM	1
gray	Mudstone with <i>Globotruncana</i> shells	Scaglia Rossa Formation	SUM	1
	Grainstone made of micritised bioclasts cemented by sparite. Among bioclasts, the following have been recognised: Miliolids, <i>Moncharmontia apenninica</i> , agglutinated foraminifera, fragments of Echinoderms, <i>Bacinella irregularis</i> .	Trieste Karst region	TRS	1
	Mudstone microsparite with rare Ostracod shells and planktonic foraminifera	Istrian region	SPR	1

Tab. 1 (continued).

<b>Mosaic with Wounded Beasts (continued)</b>				
<b>Colour</b>	<b>Petrographic description</b>	<b>Provenance</b>	<b>Mosaic portion</b>	<b>n. of tesserae</b>
<i>orange</i>	Microcrystalline equigranular highly diagenetised grainstone	<i>Giallo antico (marmor numidicum)</i>	<i>SUM</i>	1
<i>pink</i>	Wackestone with Calpionellids ( <i>Calpionella alpina</i> ), Radiolarians and rare Ostracods.	Berriasian, Maiolica Formation ( <i>Biancone</i> )	<i>SUM</i>	1
	Wackestone-packstone with abundant thin-shelled bivalves, fragments of Echinoderms, rare Protoglobigerinids. Matrix is composed of micrite, locally with sparry carbonate cement. Iron hydroxides are common, especially within bioclasts.	Rosso Ammonitico Formation (Verona or Asiago).	<i>DOM</i>	1
<i>red</i>	Wackestone with Globotruncana shells, sponge spicules, Ostracods, and pelsparite intraclasts.	Scaglia Rossa Formation	<i>SUM</i>	1
	Wackestone with Globotruncana shells and other smaller planktonic foraminifera. The intense colour is determined by abundant iron hydroxides, which are often concentrated along stylolitic joints.	Scaglia Rossa Formation	<i>TRO</i> <i>LEO</i>	1 1
	Red pottery with optically active matrix and strong orientation of temper grains. Grains are mainly constituted by quartz, muscovite, with rare fragments of quartzite.		<i>TRS</i>	1
	Red wheel-thrown pottery with strongly oriented pores in the matrix. Well-rounded temper grains are mainly made of quartz and minor fragments of carbonate rocks, including foraminifera bioclasts and clay pellets.		<i>TRO</i>	1
	Ceramic material, probably fragment of brick, made of well-rounded temper grains in a deep red optically inactive matrix. Temper grains are mainly constituted by quartz, rare plagioclase and small rock fragments of mudstone.		<i>TRS</i>	1
	Fragment of pottery with oriented structure (wheel-thrown forming). Matrix is optically inactive, with a deep red colour. Temper is mainly made of double-spaced rounded quartz grains up to 300 microns.		<i>SPR</i>	1
	Ceramic material, probably of brick, with rounded quartz grains a rare clay pellets rich in iron hydroxides, in a deep red optically inactive matrix.		<i>DOM</i>	1
	Ceramic fragment with an optically active brownish red matrix. Temper is constituted by abundant angular fragments of quartz, especially in the fine fraction, few larger rounded grains of acidic and intermediate volcanic rocks, and rare carbonate fragments.		<i>LEO</i>	1

Tab. 1 (continued).

Mosaic with Wounded Beasts ( <i>continued</i> )				
Colour	Petrographic description	Provenance	Mosaic portion	n. of tesserae
yellow	Fragment of yellow brick made of marly clay. Temper is extremely scarce, within a very fine-grained matrix. Macroporosity is low, with few elongated vesicles. Scanty iron hydroxide-rich Argillaceous Rock Fragments (ARF) are present, often with secondary planar voids and vughs.		TRS	1
	Fragment of yellow brick made of marly clay with rare temper grains of quartz, iron hydroxide-rich Argillaceous Rock Fragments (ARF), and mudstones. Porosity is mainly made of vesicles. Elongated blocky pores suggest the addition of straw to the paste, burnt out during firing.		TRO	1
	Mudstone with fenestral fabric. Fenestrae are completely filled with sparry carbonate cement. Numerous peloids and rare ghosts of foraminifera and ostracods can be observed. Numerous fractures are filled with sparry calcite.	Lower Cretaceous of the Istrian region ( <i>Istrian yellow</i> )	LEO	1
	Grainstone with fine-grained mosaic of sparry calcite and few isolated larger twinned calcite crystals.	<i>Giallo antico (marmor numidicum)</i> (?)	LEO	1
light yellow	Wackestone with abundant Calpionellids ( <i>Calpionella alpina</i> ), fragments of Ostracod shells, Radiolarians and rare sponge spicules. Iron hydroxides are also present with a spotted pattern, often as bioclast filling.	Berriasian, Maiolica Formation ( <i>Biancone</i> )	DOM	1
	Mudstone with rare ghosts of foraminifera, algae and thin-shelled bivalves.	Trieste Karst region	TRS	1

Tab. 1 (*continued*).

### Notes

<sup>1</sup> Guimier-Sorbets – Nenna 1992; Delaine 1997; Boschetti 2011; Salvadori – Boschetti 2014; Wootton 2015.

<sup>2</sup> Bertacchi 1963.

<sup>3</sup> Bueno et al. 2011; Bridi et al. c.s.

<sup>4</sup> Marano 2009.

<sup>5</sup> Both the mosaics have been entirely documented through detailed 3D models acquired with the “structure from motion” technique integrated with drawings of exposed bedding prospects from robbing trenches of wall structures.

<sup>6</sup> Secco et al. 2018; Dilaria et al. 2016. The complete list of analysed samples is in Secco et al. 2018; samples of the *pseudoemblemata* mosaic are: CBF\_29-N; CBF\_29-O; CBF\_29-ENE; CBF\_29-ENO; samples from the Mosaic with Wounded Beasts are: CBF\_2; CBF\_5.

<sup>7</sup> Bueno – Rinaldi 2016.

<sup>8</sup> Guimier-Sorbets 2004.

<sup>9</sup> Bueno – Rinaldi 2016, 372–376; Boschetti 2017b, 68–69.

<sup>10</sup> *Sigma*.

<sup>11</sup> Boschetti 2017a, 52–55.

<sup>12</sup> Secco et al. 2018, 200.

<sup>13</sup> Adam 2005, 475; Giuliani 2012, 181.

<sup>14</sup> cfr. Ginouvès – Martin 1985, 51.

<sup>15</sup> On granulometric size distribution, we refer to Wentworth scale (Wentworth 1922).

<sup>16</sup> As confirmed by petrographic analyses (cfr. *infra*, tab. 1). This demonstrates that the cut of *tesserae* was performed *in situ*; discarded chips were progressively reused in the mortars while the paving was going on. A similar procedure has been recognized in the construction of the Hellenistic mosaic of Tell Dor (Wotton 2012, 219 and fig. 2, 214).

<sup>17</sup> cfr. Ginouvès – Martin 1985, 51.

<sup>18</sup> On the function of this layer cfr. Moore 1968; Dunbabin 1999, 282.

<sup>19</sup> Boschetti et al. 2016, p. 43. Proper *emblemata* are laid on wood, terracotta or stone trays used for the transport of prefabricated figural panels (Guimier-Sorbets 2001, Guimier-Sorbets 2001–2002; Boschetti 2011, 62–63; Wootton 2012, 212).

<sup>20</sup> As referred by K. M. D. Dunbabin (1999, 288–289), our figurate panels could also be defined as “disguised *emblemata*”.

<sup>21</sup> Secco et al. 2018, 198. 202–203.

<sup>22</sup> Vitr., VII, 1, 1; VII, 3–4.

<sup>23</sup> These proportions are suggested only in the case of *ruderationes* realised *ex novo* (Vitr. VII, 1, 3).

<sup>24</sup> Cagnana 2000, 129.

<sup>25</sup> Giuliani 2012, 182.

<sup>26</sup> Bueno 2017.

<sup>27</sup> The use of painting is a characteristic originating in the Hellenistic mosaic tradition: Guimier-Sorbets – Nenna 1992, Guimier-Sorbets – Nenna 1995, Boschetti et al. 2008.

<sup>28</sup> Salvadori – Boschetti 2014.

<sup>29</sup> Bonetto – Previato 2013, 150–158; Previato 2015, 415–434.

<sup>30</sup> The quarries in the Apennines have been exploited in Roman times as revealed by the analysis on “Scaglia Rosata” and “Rosso Ammonitico” *tesserae*, as well as slabs employed in mosaics and *opus sectile* pavements in the *Domus dei Coiedii* in Suasa (Capedri et al. 2001).

<sup>31</sup> Bugini – Folli 2009, 555; Bugini – Folli 2013, 127.

<sup>32</sup> Bonetto – Previato 2013, 150–158; Previato 2015, 442–446.

<sup>33</sup> Maritan et al. 2003.

<sup>34</sup> Portulano et al. 2002, 639–640.

<sup>35</sup> Šmuc et al. 2017.

<sup>36</sup> Šmuc et al. 2017, 209 and fig. 3a, 208.

<sup>37</sup> Flügel – Flügel 1997, 32–36 and pl. 10, 5–6.

<sup>38</sup> Cet. Fav., 18.

<sup>39</sup> Maltoni – Silvestri 2018.



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The presentations of the panel “Local Styles or Common Pattern Books in Roman Wall Painting and Mosaics” illustrated various aspects of the working methods of ancient workshops and their production. I. Bragantini used the example of the wall paintings in Cartagena and Lyon to emphasise that in her opinion these were made by Italian workshops. While St. Falzone, M. Marano and P. Tomassini focused on the characteristics of the local style in wall painting in Ostia, C. Sbrolli concentrated on the iconographic characteristics of the ‘Workshop of the Vetti’ in Pompeii. E. Moormann and D. Esposito investigated the question of whether the development of wall painting in Flavian times testified to continuity or a new impulse. C. Boschetti et al. highlighted the differences in the production of mosaics in Aquileia between the Augustan period and the 4<sup>th</sup> century AD: while the first workshops worked with high quality materials from Campania and probably came from there, the later mosaicists were probably local, as they used cheap materials available locally. B. Tober pointed out that there was an ‘international’ agreement on the manner of appointing certain rooms for certain functions. E. Aydogdu and A. Kazim Öz used a mosaic in Metropolis as an example to show that three-dimensional leaf patterns are also based on models that go back to geometric forms.