

Domestic Architecture and Fresco Decoration at Humayma: Social Pretence in  
*Provincia Arabia*

By


Basiliki Vicky Karas  
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We accept this thesis as conforming to the required standard

  
Dr. J. P. Oleson, Supervisor  
(Department of Greek and Roman Studies)

  
Dr. K. R. Bradley, Departmental Member  
(Department of Greek and Roman Studies)

  
Dr. J. L. Osborne, Outside Member  
(Department of History in Art)

  
Dr. Q. Mackie, External Examiner  
(Department of Anthropology)

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University of Victoria

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Supervisor: Dr. John P. Oleson

## ABSTRACT


In the summer of 1996 painted wall plaster remains were uncovered from a Late Roman period house at the ancient site of Humayma, located in modern Jordan. Partial excavation of this structure (referred to as House E125) revealed a building constructed in stone and mud-brick. Ceramic dating places House E125 around the late second or early third centuries A.D. The painted plaster remains from this house suggest that during its original occupation, the walls of this house were plastered and ambitiously decorated with colorful geometric and figural motifs in true fresco technique.

This thesis explores the style, motifs and technique of the fresco decoration in House E125, with the purpose of providing a better understanding of this painted house in its historical, chronological, and socio-cultural context. The analysis reveals that the multi-ethnic character of Humayma during its Roman occupation had a strong influence on the private tastes of the population.

The bulk of scholarship devoted to the study of Roman domestic art and architecture has traditionally focused on houses from Roman Italy. Within the last two decades, however, scholarly attention in the field of domestic art and architecture has shifted to include houses throughout the Empire. Until recently, excavation projects in the Roman Near East have concentrated on monumental structures such as forts, temples and baths. With the growing interest in houses of the Empire, House E125 represents one of only a few carefully excavated and


documented decorated houses from Roman Arabia, and provides important new evidence concerning domestic art and architecture in the Roman Near East.

## Examiners:



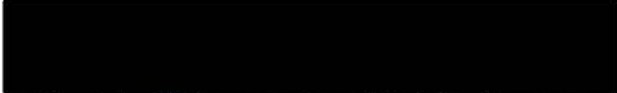
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Dr. J. P. Oleson, Supervisor  
(Department of Greek and Roman Studies)




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Dr. K. R. Bradley, Departmental Member  
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## DEDICATION

To my mom and dad and my brothers  
for believing in me

## Chapter 1

### I. Introduction

In the summer of 1996, the remains of a richly decorated Late Roman house (E125) were excavated at the site of Humayma (called Hawar, Auara, and Havarra in the Roman period)<sup>1</sup> in southern Jordan.<sup>2</sup> Concentrations of polychrome fresco fragments were found *in situ* in the soil, and in position on the house's walls, voussoirs and arch springers. They displayed geometric designs, divine or human figures, and one painted inscription.<sup>3</sup> The fragments represent important new evidence concerning Roman domestic fresco decoration in *Provincia Arabia*.

Painted interiors are one of the most widespread hallmarks of Roman civilization and are found in houses throughout the Empire.<sup>4</sup> At present, house E125 is the only known frescoed domestic structure from the Roman period at Humayma (mid-second century through the fourth century A.D.). The Roman fort and the Abbasid *qasr*, the only other frescoed buildings excavated at

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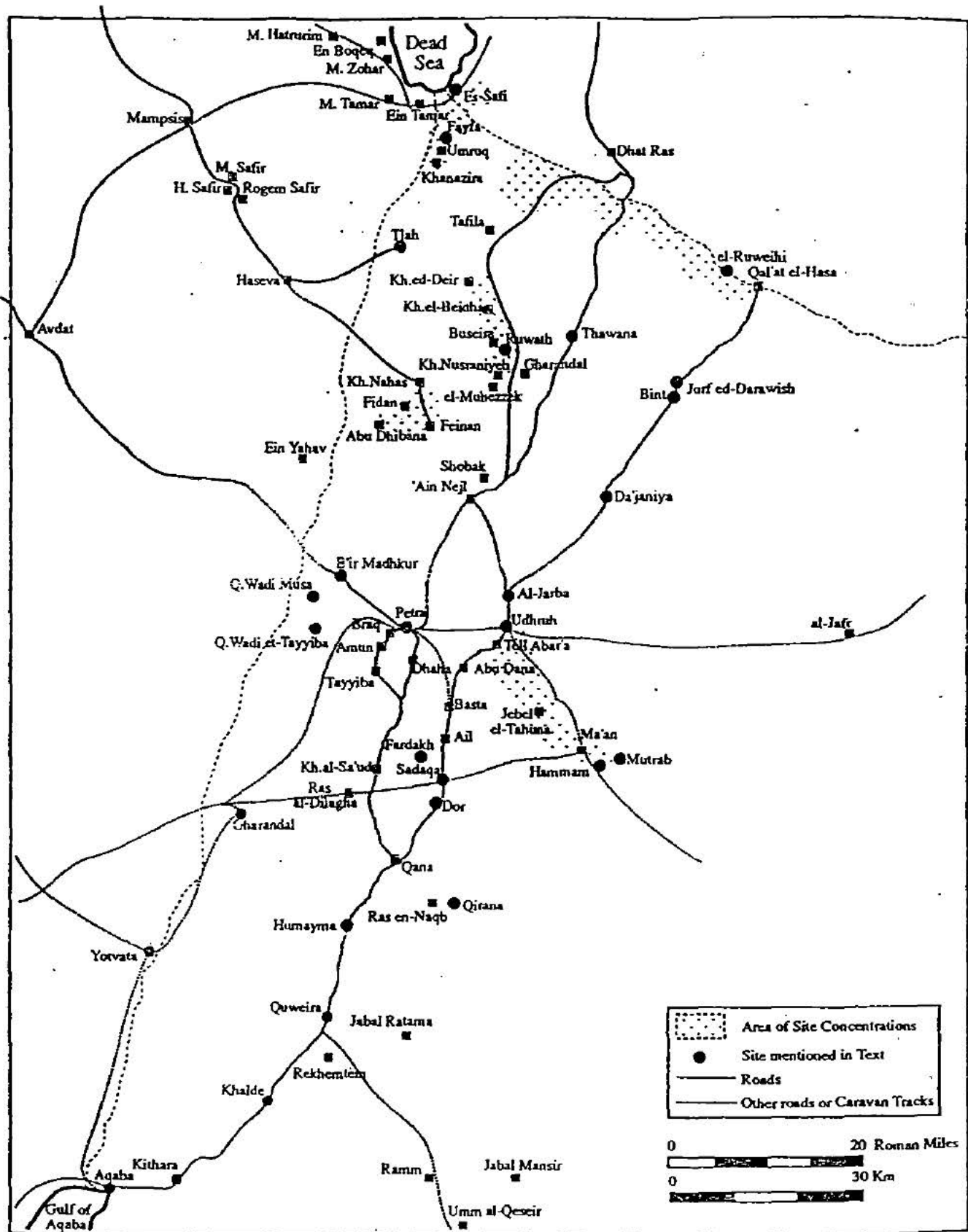
<sup>1</sup> Oleson in Meyers 1997: 121.

<sup>2</sup> Excavation of House E125 began in 1996 and continues (see Oleson 1997 & 1999).

<sup>3</sup> Corbeil and Helwig (1997 and 1999), of the Canadian Conservation Institute, provide pigment analysis on selected fresco fragments from E125. The analysis reveals that the fragments had been painted in true fresco technique: the process in which pigment is applied directly to a wet plaster support.

<sup>4</sup> Ling 1985: 5.

Figure 1: Location of Humayma in Southern Jordan



man - Byzantine southern Jordan.

Humayma, are at present known not to contain painted inscriptions or figured scenes.<sup>5</sup>

This study will focus on the frescoes found on the interior walls of House E125. As only a few other decorated houses of the period have been found in *Provincia Arabia*, an analysis of E125 and its decoration provides a valuable addition to the emerging body of scholarship on houses in Roman Arabia. Furthermore, by bridging the gaps in current scholarship, E125 helps us to understand domestic life, domestic space and expressions of Roman culture in communities throughout the Roman East.

The objectives of this thesis are to provide a thorough description and analysis of the fresco decoration in E125 and to place House E125 in its chronological, historical and socio-cultural context. In the process, I will review the current literature on decorated houses in the Roman Near East and provide a synthesis of this material as it applies to E125. Two appendices provide a catalogue of frescoed sites in the Roman Near East (Appendix A), and a catalogue of all the processed fresco fragments from the 1996 and 1998 excavations in E125 (Appendix B).

Chapter One places E125 in its archeological and architectural context at Humayma by outlining the phases of occupation, together with the corresponding structural and decorative changes to the building. The socio-

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<sup>5</sup> Figural graffiti drawn with carbonized reeds or twigs showing portions of a camel and rider, an ostrich, palm trees, and possibly ithyphallic human figures were found in the Roman fort. This informal decoration, however, shows signs that it may have been applied after abandonment of the fort. The fresco motifs in the Roman fort consist of painted geometric designs similar to the geometric patterns from E125. One room in Abbasid *qasr* was painted in polychrome, geometric and floral designs (Oleson 1999a: forthcoming). See Oleson et al. 1995 and 1997, for discussion of the frescoes from the Roman fort and the Abbasid *Qasr*.

cultural context of E125 is explored through its geographical location on a major Roman military road and caravan trade route, and through its relationship with the Roman fort and bathhouse at Humayma. As we shall see, the location of E125 between these two Roman structures implies a possible association with a military *vicus* at Humayma. I will also examine the influences that Roman soldiers stationed at Humayma, and travelers using the trade route, may have had on the art and architecture of House E125. With this in mind, I will discuss the cultural remains from the various rooms of the house and their relevance to the multicultural atmosphere of this military and mercantile community during the Roman period. Chapter Two provides a comprehensive analysis of the fresco decoration in each room of E125, and of the possible function it served by highlighting the fresco style, motifs, technique and pigments. Chapter Three reviews the state of current scholarship on houses of the Roman Empire and situates E125 within a Near Eastern context of domestic architecture. Finally, Chapter Four summarizes the results of these investigations and situates the E125 frescoes in the context of ancient painting in *Provincia Arabia*.

Little has been published on the houses of the Roman East in comparison with publications on the houses in other areas of the Empire, particularly the decorated houses of Roman Italy. Because of the sheer number and the remarkable state of their preservation, wall paintings from Rome and Campania provide a wealth of information concerning Roman lifestyles and daily living conditions from the late Republic into the Imperial period. In the past decade, scholars such as Andrew Wallace-Hadrill, Roger Ling and John Clarke have examined the essential role domestic architecture and interior decoration played

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in the private lifestyles and living conditions of the ancients.<sup>6</sup> These scholars have illuminated and increased our knowledge of Roman lifestyles by adopting a more inclusive approach to the study of Roman domestic art and architecture than had previously been the case. Commenting on the traditional methods applied to the study of Roman houses, Wallace-Hadrill states, with regard to Pompeii, that “it has been, and remains, the bane of Pompeian studies that the evidence is dismembered into individual paintings, walls or rooms, and that the house as a decorative and social unit disappears from view.”<sup>7</sup> The approach taken by current scholarship, however, seeks to correct this dismemberment by describing rooms, decoration and the role of both in the overall plan of a house.<sup>8</sup>

This approach entails a careful examination of the decorative style, motifs, techniques and color schemes of wall-paintings for information about the patron and his or her social status and tastes—allowing us to examine how decorated space was experienced by those living within it.<sup>9</sup> Placing decoration in its full historical, architectural and socio-cultural context allows us to understand better how decorated spaces functioned in the lives of the people who commissioned and lived with the art. The templates for such studies continue to be the decorated houses of Roman Italy.

Published scholarship on domestic structures and decoration from other

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<sup>6</sup> See Wallace-Hadrill 1994, Ling 1991 and Clarke 1991.

<sup>7</sup> Wallace-Hadrill 1986: 433.

<sup>8</sup> E.g. see Moorman 1993

<sup>9</sup> Clarke 1991: xxiii.

areas of the Empire, particularly the eastern provinces, is relatively limited.<sup>10</sup> Excavation in the Roman Near East has tended to concentrate on monumental structures such as forts, temples, baths and large villas.<sup>11</sup> Lesser domestic structures have not been entirely neglected, but the fresco paintings from these buildings are usually fragmentary and difficult to interpret, and are thus often accorded only brief mention in excavation reports.

For several reasons, excavation and analysis of the architecture and fresco decoration of E125 are important to our understanding of the Roman presence at Humayma. The frescoes are one of the few material indicators that Romanized individuals, other than the fort's garrison, lived at Humayma.<sup>12</sup> In addition, House E125 is a modest, yet richly frescoed house in a remote province of the Roman Empire, and such structures remain significantly under represented in the literature. Finally, analysis of the motifs, style and technique of the frescoes from E125, reveals private tastes reflective of the multi-ethnic character of Humayma during the late second and early third centuries A.D.<sup>13</sup>

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<sup>10</sup> On the rising interest over the last twenty years in the decorated houses of Roman Britain see Ling 1991: 171 and Davey 1982. But here too there is much work still to be done, not only in preserving the frescoes but also in integrating them into a socio-cultural context.

<sup>11</sup> Thébert, 1987: 319-409 concentrates on houses of the ruling class in Roman Africa; Stucky, 1996, gives an account of an elite Roman villa at Petra.

<sup>12</sup> Grahame 1998: 175 describes Romanization as degrees "measured through the presence of material objects that are taken to be stylistically 'Roman' or largely influenced by Roman styles." House decoration and self-presentation, as part of Roman material culture, are described by Wallace-Hadrill as reflections of social reality and Romanness (1994: 185). Although the terms "Romanized," "Romanness" and "Romanization" are problematic and currently receiving much scholarly attention, Grahame's definition is highly applicable, and the one I have chosen to follow, in the analysis of the fresco decoration from House E125.

<sup>13</sup> In the last part of this century scholars have been redefining the concept of "Romanization" to include the role native populations played in this process. Deeply

Domestic structures, in addition to the Islamic *qasr*, were known at Humayma prior to 1996, but these were largely overshadowed by excavation objectives directed toward the Roman fort and bathhouse, the Byzantine churches, and the Islamic *qasr*. Since the late 1980s, excavation of these structures has revealed a site rich in Nabataean, Roman, Byzantine and Islamic history. Archaeological and literary evidence reveals that Humayma was a thriving military and mercantile center throughout its history—a history spanning almost eight hundred years from the initial Nabataean settlement to its abandonment in the Islamic period.<sup>14</sup> The impact that the Nabataean, Roman, Christian and Islamic cultures had on the architecture of ancient Humayma is evident in the rich and varied archaeological remains from each period of occupation.

Soon after its foundation in the first century B.C. by the Nabataean king Aretas III,<sup>15</sup> Humayma developed as a significant station on the caravan trade

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rooted in European Imperialist thinking, concepts of “Romanization” were initially based on a dichotomy of “civilized” over “barbarian” and in notions of Roman Imperialism as a matter of “intelligent savages recognizing the superiority of classical civilization” (Woolf 1998: 5). The work of scholars such as Woolf (1994, 1998), Graham (1998), and Millett (1990) reflect a new awareness of the multifaceted aspects of “Romanization”. Woolf 1998: 7 addresses the need to redefine the term in this way: “Romanization may have been ‘the process by which the inhabitants come to be, and to think of themselves as, Romans’, but there was more than one kind of Roman, and studies of provincial culture need to account for the cultural diversity, as well as the unity, of the empire.” Millett too champions the need to take into account the cultural diversity throughout the provinces of the empire and to view “Romanization” as a “two-way process” (1990: 2). The multi-ethnic character of Humayma in the Roman period is an example (on a small scale) of the cultural diversity and interplay which scholars are now realizing as an important defining element in the process of “Romanization”.

<sup>14</sup> Eadie 1984: 211-14; Oleson 1999: forthcoming.

<sup>15</sup> Ouranios’ *Arabika* (in Jacoby 1958: 675: F1b) tells of the founding of *Auara*—Nabataean Hawar. Oleson et al. (1989) establish the identification of Hawar with modern Humayma from evidence in the Peutinger Table.

route from Aila on the Red Sea to the Nabataean capital at Petra.<sup>16</sup> After the Roman annexation of the Nabataean Kingdom in A.D. 106 as *Provincia Arabia*, Humayma also became an important military link for the Romans between Bostra and Aila.<sup>17</sup> The fort at Humayma, at present the oldest known Roman fort in Jordan, was also one of the largest on the *Via Nova Traiana*.<sup>18</sup> The fort was abandoned in the late fourth century,<sup>19</sup> but Humayma is known through literary references to have continued as an important Romano-Byzantine town.<sup>20</sup> It was not until the purchase of the town by the Abbasid family in the later seventh century that Humayma experienced Islamic occupation.<sup>21</sup>

## II. E125 Archaeological Context

Frescoes do not exist in isolation. In order to understand the function and purpose of the E125 frescoes, it is imperative to place them within the larger

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<sup>16</sup> Bowersock, 1983: 8, describes the trade route through the Hisma desert (the geographical area where Humayma is located) as the most preferable route to Aqaba both in antiquity and in modern times.

<sup>17</sup> Eadie 1984: 212. See also, Oleson 1999a: forthcoming.

<sup>18</sup> The legionary forts at Lejjun and Udruh are larger than the fort at Humayma (Parker 1995: 255). For further discussion on these and other forts in southern Jordan see Parker 1982, 1988 and 1990. For mention of Humayma on the *Via Nova Traiana* see Bowersock 1983: 94, Isaac 1990: 216 and Fiema 1995: 266 table 2.

<sup>19</sup> Oleson 1999a: forthcoming.

<sup>20</sup> Five (possibly six) Byzantine churches have been identified at Humayma (Schick in Oleson: forthcoming). Ancient Humayma (Hawar) is referred to as a *polis* in the second century by Ptolemy of Alexandria (*Geog.* 5.17) and again in the early sixth century, by Stephen of Byzantium (*Ethnika* 25 & 144).

<sup>21</sup> Eadie 1984: 214. See also Foote in Oleson 1999a: forthcoming, for an account of the Abbasid family *Qasr* and occupation at Humayma.

context of the associated architecture. Unfortunately, the plan of the E125 house is not complete—the exterior walls have yet to be conclusively identified. Still, even in an incomplete stage, the current house plan for E125 (Fig. 2) suggests a pattern of rooms organized around access to open-air courtyards. A more thorough analysis of the possible architectural layout, based on other Roman period houses in the Near East, will be provided in Chapter Three.

A total of nine rooms and, or, courtyards (labeled A to J) have been identified in E125, of which only two have been fully excavated (A and I).<sup>22</sup> Of these nine architectural units, four have yielded evidence of fresco decoration. After a brief introduction to the overall architectural plan of the house, only the four units in which fresco remains were found (all apparently enclosed rooms) will be discussed in detail in this section. Following this analysis, the remaining five units, which provide further insight into the architectural plan and function of the house, will be examined.<sup>23</sup>

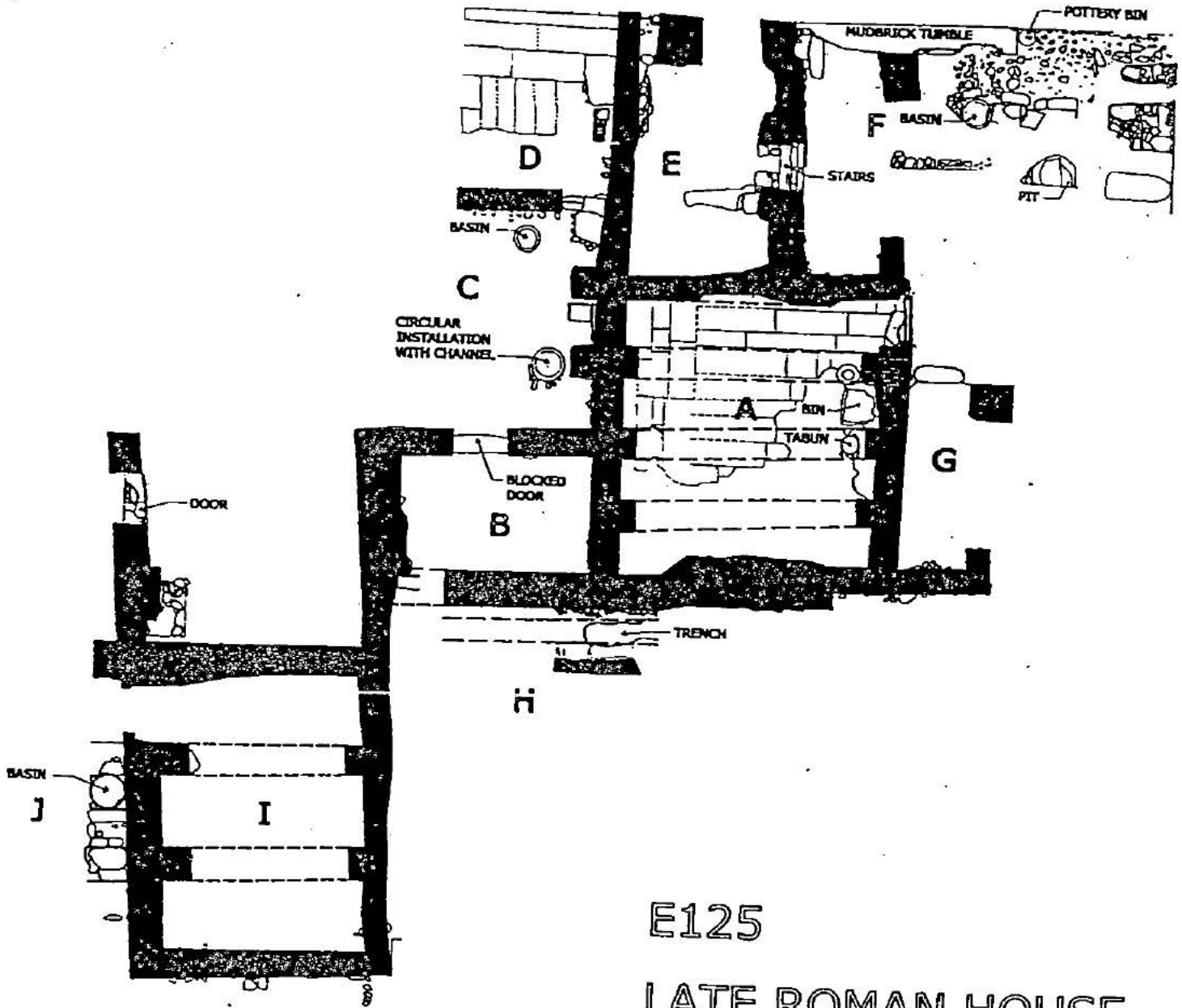
The initial construction phase of House E125 involved neat mud-brick walls on multi-course cobble foundations. Arches, doorjambs and roofing slabs were built of cut sandstone blocks; the spaces between the roofing voussoirs

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<sup>22</sup> External walls for E125 have not yet been located. It is the goal of the 2000 season to delimit the extent of the walls and to finalize the building's plan.

<sup>23</sup> The sections on archaeological context and phasing in chapter one rely heavily on the measurements and observations in Reeves (Reeves in Oleson 1999a: forthcoming) and through personal communication with Reeves, May-October 1999.

Figure 2: E125 House Plan



E125  
LATE ROMAN HOUSE  
HUMAYMA 1996-8

0 1 2 3 4 5 m



SEAN FRASER



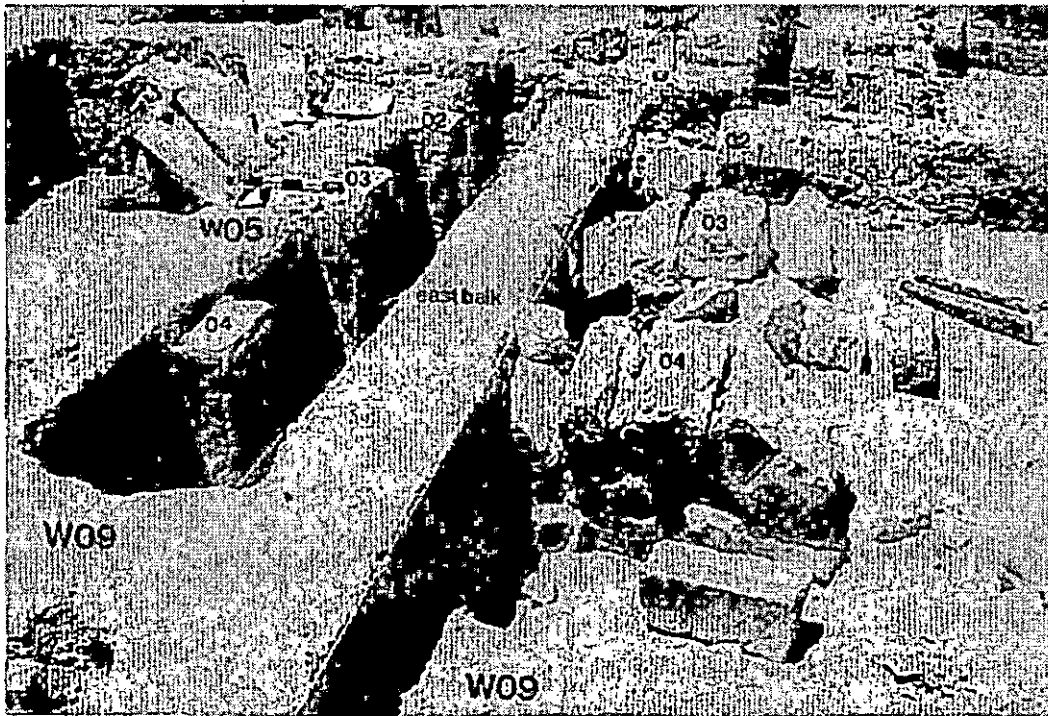
were filled with cobbles and mortar. Floors were made either of beaten earth or of local white sandstone flagstones overlaid by unpainted plaster.<sup>24</sup> Polychrome fresco was applied to the hard, sandy white plaster of the original roofing slabs, arches and walls of this house.<sup>25</sup>

Room A (ca. 4.5 m x 5.0 m) is delineated on the west by a north-south wall (wall 05), 0.48 m wide, exposed to a length of 5.06 m and a maximum height of 0.94 m. Three evenly spaced arch springers (02, 03 and 04) bond to the east face of wall 05. Collapsed arches oriented east to west provide evidence of a vaulted ceiling in this room. Nearly equal proportions of the fresco remains were found buried in the soil of Room A and preserved *in situ* on the walls, arch springers, and fallen voussoirs (Fig. 3). The fresco found *in situ* on wall 05 covers the lower portion of the three arch springers and the wall space between them (loci 14, 16, 18, and 20) to a maximum height of approximately 0.85 m. The remains preserved *in situ* on the walls are evidence that the original phase of this room was richly decorated with painted walls showing polychrome geometric and inscribed figural scenes framed within colored borders. Since the maximum preserved height of wall 05 is only 0.94 m, the numerous fallen fragments, showing the same polychrome panels, geometric designs and figured scenes, probably belonged to the now missing upper portion of the wall.

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<sup>24</sup>Reeves in Oleson 1999a: forthcoming.

<sup>25</sup> The excavation of E125 was directed by K. 'Amr in 1996 and by M. B. Reeves in 1998.



**Fig.3**  
 Western portion of Room A  
 North view showing plaster *in situ* on wall 05, arch springers (02, 03, 04 )  
 and collapsed arches.

The eastern perimeter of Room A is formed by Wall 10, a north-south wall, now collapsed, with arch springers corresponding to those on wall 05. The northern perimeter of this room is an east-west wall (wall 42), 0.48 m wide, exposed to a length of 5.20 m with a maximum height of 0.85 m. The southern border of Room A is an east-west wall (wall 09), 0.75 m wide, exposed to a length of 3.0 m and a maximum height of 0.93 m. The floor consisted of sandstone flagstones overlaid by plaster.

The soil in Room B (ca. 3.70 m x 2.10 m), west of Room A, yielded a high concentration of fallen fresco, but no fresco survived *in situ* on the walls. This room did not contain architectural features such as the arches and plastered

flagstone flooring found in Room A. Although Room B is yet to be fully excavated, the dimensions exposed so far suggest a modest interior space, decorated less elaborately than Room A, with simple red lines and daubs painted on white plaster.

A central door in the north wall of Room B leads into Room C, where fallen fresco fragments showed the same painted red and white pattern as those from Room B. Room H, located immediately south of Rooms A and B, has been only partially excavated, but it contained a dense concentration of fresco fragments showing portions of a human figural scene, including one frontal image of a human face and one face in profile. All the fresco fragments from Room H were excavated from a mudplaster trench bracketed by a flagstone floor and wall 09. There are no traces of fresco on the walls of this room, thus making the original location of these fragments unclear. The fragments appear to have been intentionally buried in the mudplaster trench, in antiquity, as refuse from renovations taking place in this and, or, other rooms of house E125 (see below).

### Rooms and Phasing

Four architectural phases have been identified for E125, based on the architectural and artifactual remains in Rooms A to J. Dates for the phasing are tentatively founded on the ceramic readings and on the sequence of frescoes excavated from these rooms. The preliminary ceramic readings suggest an original occupation date of the late second or early third century A.D.<sup>26</sup> Analysis

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<sup>26</sup> Although still under analysis, pottery from E125 has been identified as a transitional ware, which combines elements of both second and fourth century typologies.

of the style and decorative motifs of the frescoes suggests the same date.<sup>27</sup>

As previously stated, in its initial phase (Phase I) house E125 was constructed of neat mud-brick walls on multi-course cobble foundations. The walls in Rooms C and F rested on hard, sterile beaten earth floors. In contrast, Rooms A and D had flooring made of local white sandstone flagstones overlaid by unpainted plaster. Doorjambes of neatly cut sandstone blocks were built in Rooms A, D and I. Rooms A and I also had arches and roofing slabs of neatly-cut sandstone blocks with a mudplaster coating. Buttressing piers were used to ease the pressure of the arches on the mud-brick walls (e.g., buttresses found in Room C were used to relieve the pressure of arches in Room A on wall 05). Phase I ended with damage to most of the rooms.

Evidence for the Phase I damage was found in the fresco dump excavated in Room H, which revealed building debris and seven possible ballista balls. The presence of these ballista balls in an otherwise domestic context suggests that military action may be associated with the destruction at the end of Phase I.<sup>28</sup> One result of the destruction (military or otherwise) was the loss of plaster facings on many of the walls.

Phase II involved major renovations to the building. Flagstone floor pavers were removed from the southern portions of Rooms A and D, and many

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Ceramics from E125 were analyzed by K. 'Amr, and Y. Gerber. Personal communication May 1999. See also, Reeves 1999: forthcoming.

<sup>27</sup> A detailed discussion concerning the dating of the painting style and the motifs from the E125 fresco will be provided in Chapter Two.

<sup>28</sup> Reeves in Oleson 1999d: 514. This suggestion is based on evidence from contemporary destruction in *Provincia Arabia*, namely *Qasr al-Bint* at Petra, which Graf (1989: 144) attributes to Zenobia's revolt in A.D. 270-272. Further excavation is needed, however, in order to date E125 securely. At present, the preliminary ceramic readings

damaged walls were repaired in a haphazard manner. In Phase II only minimal efforts were made to repair the damaged walls. The north face of the south wall (wall 09) in Room A was repaired with a facing of large potsherds set in mud. Other walls were partially refaced with a combination of potsherds and cobbles set in a matrix of mudplaster. Many damaged areas show renovations that combine potsherd facing in the place of fallen fresco adjacent to areas of whitewashed fresco.

A sudden collapse of the whole building marks the end of Phase II. The arches in Rooms A and I fell, bringing down the ceilings and crushing complete cooking ware vessels. The ceramics, sealed in the debris of the destruction, indicate a date of the mid to late third century A.D. The wall between Rooms A and G toppled toward the east. Large, flat, sandstone slabs piled up in Room C are either collapsed roofing slabs from this event, or floor slabs pulled up during Phase II or Phase III. Room F contains a pit filled with a floor slab or a fallen roof slab and tumbled stones. It is also possible that the collapse in this phase was caused by accumulated stress to the building from the damage in Phase I and the inadequate renovations that followed in Phase II.<sup>29</sup>

Phase III for E125 involves a period of abandonment. Given the dates of Phases II (mid to late third century A.D.) and Phase IV (no later than the late third or early fourth centuries A.D.), Phase III seems to have lasted for 20 to 50 years. During this time Rooms B, C and F were filled with deposits of ash and soil.

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suggest that the Phase I damage occurred no later than the mid-third century.

<sup>29</sup> Reeves in Oleson 1999a: forthcoming.

Phase IV saw the limited reuse of the various rooms in E125. In Room A, the collapsed voussoirs of the northern and central arches were removed from the northeast corner, while the voussoirs in the northwest corner, and all those of the southern arch, were left where they had fallen. The doorway from Room A to G was blocked, and a *tabun*, a large storage bin, and millstone were set up in the cleared area; their presence here may indicate a makeshift kitchen. Room B's reuse is evidenced by a higher floor level imposed over fallen debris and by a blocked doorway connecting this room to Room C. Only the northern portion of Room C was reused, as indicated by a sandstone basin added near to its north wall. Room F saw the most intense reuse during this phase. A new threshold was built into the western wall leading onto a beaten earth floor with a cobbled surface in the northeastern part of the room. A recessed bin was also added to this area and used for the storage of coarse ware and cooking ware vessels. These vessels date this phase to no later than the late third or early fourth century A.D. Phase IV ends with the final collapse and abandonment of the building.

#### Phases of the Fresco decoration

The frescoes from E125 were painted sometime around the late second or early third centuries A.D., during the building's initial occupation phase (Phase I). This date is based in part on descriptions of wall paintings from the Severan age, 193 A.D. to 235 A.D., which provide parallels for the motifs and painting style of the E125 fresco.<sup>30</sup> In addition, the painted Greek inscription from Room

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<sup>30</sup> Clarke 1991: 341; Ling 1991: 176-78; see plate 192 for an example of Ling's description of Roman painting post-dating the Pompeian Fourth Style--described as the simple

A has been tentatively dated to the third century A.D. on the basis of the form and execution of the lettering.<sup>31</sup> A complete description of the frescoes, and of the methods used to date it, will be given in Chapter Two. The phasing of the fresco follows the same sequence as the building's occupation phases. There are four phases: the original application of the fresco (Phase I), renovation (Phase II), the first period of abandonment of E125 and decay of the fresco (Phase III), and eventual abandonment and ruin (Phase IV).

During Phase I, an extensive decorative program existed in several rooms of E125. A hard, sandy, white plaster was applied to the smooth mud-brick, or mud plastering of the building's interior, to which pigments were applied while the plaster was still wet. The decorative schemes consisted of either polychrome geometric or figural scenes painted on monochrome fields, framed within varied colored banding or simple designs rendered in red lines and daubs. As stated above, the end of this phase is marked by evidence of destruction, at which time a significant amount of the fresco fell from the walls.

Phase II, at best, reveals a period of second-rate renovations to many areas where plaster had fallen from the walls. Evidence of sporadic wall refacing together with whitewashing reveals an increasing disinterest in the house or the inability to maintain the decorative standard found in Phase I. Fallen fresco, some of which was replaced by potsherd facing, was collected and dumped in a trench in Room H. Mass destruction to the superstructure of

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arrangements of colored fields, with each field containing a figural or decorative motif, but showing no architectural elements.

<sup>31</sup> T. Gagos of the University of Michigan provided dating for the inscription. Personal communication, May 1999.

E125 marks the end of Phase II. The damage to the fresco dates to the mid to late third century A.D.

During the twenty to fifty years of abandonment which mark Phase III, the structure was open to the harsh desert elements. Sand and ash collected in the rooms, and the walls were exposed to the sun, wind and rain. There is a significant difference in preservation between the fresco pigments on fallen fragments excavated from the soil and those on fresco which survived *in situ* on the walls. What little fresco was left in position on the walls after the Phase II destruction suffered from bleaching by the sun and erosion by rain and wind. The fallen fresco, however, remained buried, and therefore retained much of the detail and vivid color of its original design.

Phase IV marks the final phase of the building. Remains of refuse and temporary fire pits throughout the house indicate limited and irregular use of the building by squatters.<sup>32</sup> There is no evidence of alterations of any kind to the fresco during this phase. At this point, the fresco most likely continued to exist in the manner of the previous twenty to fifty years: scattered or buried in fragments throughout the structural debris, or where still on the walls, slowly deteriorating from the intense sunlight, wind and encroaching desert sands.

### **III. Relationship of E125 to the Roman Fort and Bathhouse**

The location of the bathhouse at Humayma, 150 m southwest of the fort, is consistent with Sommer's view that Roman forts and bathhouses were

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<sup>32</sup> Reeves in Oleson 1999a: forthcoming.

purposely built at some distance from one another to allow for either the growth of a *vicus* or to accommodate a settlement already present.<sup>33</sup>

When the decision to build somewhere a permanent fort has been taken, the original requisitions would include more than the area of the fort as such. Certainly the bath, considered to be a military installation . . . and, if necessary, a *mansio* would have been built on confiscated land as well . . . Most of the baths are placed at some distance from the fort . . . leaving thus a very convenient and attractive space between fort and bath: attractive in so far as very likely the major local traffic would flow on this axis.

(Sommer 1984: 15)

House E125 is located 160 m south-west of the south gate of the Roman fort (E116) and 60 m east of the Roman bathhouse (E077). The placement of E125 outside the Roman fort's south gate, which was the gate closest to the soldiers' barracks and on the route to the bath-house, suggests that this house may have been built to interact with these two military structures (fig. 4). The ceramic evidence from E125 supports a date for the original occupation of this house later than the foundation of the Roman fort and bathhouse, but during their period of use (mid-second to the fourth century A.D.).<sup>34</sup> The Roman fort at Humayma probably encouraged the development of a military *vicus*: the area occupied by the civilian population outside the confines of, but associated with, a Roman military installation.<sup>35</sup>

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<sup>33</sup> On Roman forts in the East that were built on the perimeters or in existing eastern cities see Isaac 1986: 388, 1990: 123-24; Millar 1993: 94; Kennedy & Riley 1990: 114.

<sup>34</sup> Excavation of the Roman fort began in 1993 and continues. Ceramic and coin evidence date this building to the mid-second century through the fourth century. The bathhouse is dated to the same period as the fort and probably continued to be used into the Islamic period at Humayma; see Oleson, 1999a: forthcoming; Reeves 1996; both provide further discussion on these two structures.

<sup>35</sup> Crawford 1987: 385.

Villages, or *vici*, are found associated with Roman forts in Arabia at Umm el-Jimal, Khirbet es-Samra, Umm el-Walid, Lejjun, Udruh, Es-Sadaqa and Qasr Bshr.<sup>36</sup> At Lejjun, for example, excavation of the west *vicus* revealed a large *mansio*: a structure used for temporarily lodging travelers, merchants, and visiting officials.<sup>37</sup> This building contained thirteen rooms arranged around a central courtyard, with a single entrance to the building located in the center of the east wall.<sup>38</sup> Unlike E125, the structure at Lejjun contained no evidence for domestic or commercial activity. Nonetheless, it is a valuable example of one of the many types of buildings that might have existed in a military *vicus*.

A wide range of civilians made their homes and undertook business in *vici* associated with Roman forts. Soldiers, in service and retired, together with their families and their slaves, set up houses among merchants, craftsmen, bakers, and the prostitutes who lived and worked in *vici* throughout the Empire.<sup>39</sup> The fort at Humayma is one of the largest in Jordan,<sup>40</sup> and certainly

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<sup>36</sup> Gregory 1996: 259-412.; Parker 1988; 1990 for more information about Lejjun and Qasr Bshir.

<sup>37</sup> Crawford 1987:385.

<sup>38</sup> Parallels for this structure are found (though on a larger scale) at the sites of Umm el-Walid and Khan ez-Zebib, both in Jordan (Crawford 1987: 396-7).

<sup>39</sup> On the use of pre-existing houses (at Dura Europos) as barracks for soldiers see Rostovtzeff 1938: 25. Crawford, 1987: 385, gives a brief overview of the diversity of people living in military *vici*; Salway, 1958: 237, mentions the preference of veteran soldiers to remain close to their post after retiring from the military. Because no military *diploma* exists from the Arabian frontier (Parker 1986: 125), we can only guess, based on accounts for the other provinces of the Empire, that veterans would have chosen to remain in Arabia also. During its Roman occupation (and before), Humayma was host to a community of farmers, merchants, travelers and soldiers. Despite its seemingly remote locale, Humayma's location on the caravan route and military road, made it accessible, and its abundant water supply would have no doubt appealed to settlers (for an account of the extensive waterworks at Humayma see Oleson 1987, 1988, 1990, 1995). For an account of the strong bonds formed between soldiers and their provincial posts, specifically Syrian troops posted in Germany and *vice versa* see Tacitus

could have supported and benefited from a *vicus*.

The five hundred-man auxiliary garrison postulated for Humayma would have provided a lucrative business opportunity for locals already living at Humayma, and, or, incentive for camp followers to set up permanently alongside the existing settlement.<sup>41</sup> Furthermore, the proximity of E125 to the fort and bathhouse places it along the path taken by soldiers passing between these two structures. The area surrounding both structures would have been prime locations for social and commercial activity.

Since settlement was continuous at Humayma from the initial Nabataean sedentarization through Roman, Byzantine and Islamic occupation, we can expect the presence of domestic structures in the archaeological record. For example, we know from other contemporary Near Eastern sites, such as Mampsis and Petra, that Nabataeans built both modest and elaborate stone houses which were often situated next to, or incorporated into, later Roman houses.<sup>42</sup> This pattern is also found at Humayma, for example, in house E122 in which Nabataean, Roman and Islamic occupational phases have been identified.

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*Histories*, II, 80. See also, Tacitus *Annals*, XIV, 27, for comments on the reluctance of veterans to live in settlements assigned by the government upon retirement, preferring to remain in the military post where they had served.

<sup>40</sup> Only the forts at Lejjun and Udruh are larger than the fort at Humayma (Parker 1986: 105).

<sup>41</sup> For an estimate of the number of soldiers garrisoned at Humayma see Parker 1995: 25. On soldiers' pay and the *vici* associated with permanent forts see Sommer, 1984: 7-9. Sommer believes a five hundred man auxiliary to have been large enough to attract settlers for a *vicus*. See also Salway, 1958: 227, who discusses the economic and social impact of Roman forts on local populations and in attracting settlers to the area.

<sup>42</sup> For architecture at Mampsis and Petra see Negev 1988, McKenzie 1990 and Stucky 1996, 1995; see also Strabo 16. 4. 26, who writes that the Nabataeans built stone houses in unwalled settlements.

Roman and Byzantine domestic structures at Humayma are concentrated around the fort and bath, and on the hillside west of the original settlement center.<sup>43</sup> Of these, only house E125 and E122 have been excavated.<sup>44</sup>

#### IV. Cultural remains from E125

The artifacts from the individual rooms in E125 are valuable clues to determining the identities of the occupants and the purposes and functions E125 served. Although the artifacts are scanty, they nonetheless provide some cultural markers for the inhabitants and evidence for the activities taking place inside the house. The artifacts listed below provide evidence for multi-ethnic influence from the smallest ornamental bead to the detailed wall paintings in Rooms A, B and C.

The artifacts from E125 reflect the cross-cultural milieu that existed at Humayma during the late second and early third centuries A.D. A lamp depicting an erotic scene in relief, and a ceramic jug bearing the Greek graffito "ABBOYPA" were found, in addition to an assortment of Egyptianizing artifacts: a faience ram's head amulet, a faience scarab, faience beads, and fragments from a delicate alabaster vessel. Walls were covered in colorful frescoes with a painted Greek inscription, and with motifs and iconography common in Graeco-Roman art. Romanity was displayed in the painting style, which finds its closest parallels and seems to imitate trends popular in Roman

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<sup>43</sup> Substantial stone-built houses dating, at least in part, to the Byzantine period are visible specifically along the west hillside (Oleson 1999b: forthcoming).

<sup>44</sup> See 'Amr in Oleson 1999a: forthcoming for the excavation report on building E122 .

Italy at the time. Evidence of domestic production from the initial phase of occupation was found in Room C in the form of circular basins of white sandstone with single drain holes, possibly used for the dyeing or fulling of woolen garments or for the washing of laundry.<sup>45</sup>

As outlined earlier in this chapter, Humayma was initially an agricultural settlement which also served as a caravan stop on the Nabataean trade route from the Red Sea to Petra. Later, with the creation of the new Roman province of Arabia, Humayma became a military and mercantile settlement. The population of Humayma would have included a mix of soldiers, veterans, merchants, farmers, pastoral groups and their respective families.<sup>46</sup> The presence of the major north/south road, which attracted the fort, also opened up this site to trade activity. The cross-cultural mix of artifacts found in E125 evokes a number of scenarios for the possible inhabitants and function of the house but offers no certain conclusions. The artifactual evidence from E125, in conjunction with the mercantile and military nature of Humayma during the Roman period makes it plausible that a Roman merchant was living and working out of house E125, possibly trading his goods in exchange for soldiers' pay.<sup>47</sup> Either a private or commercial use can be inferred from most of the artifacts found in E125. Were the Egyptian artifacts trinkets collected from

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<sup>45</sup> Reeves in Oleson 1999a; forthcoming.

<sup>46</sup> Numerous caravans also passed through the town on the *Via Nova Traiana* and probably often camped by the large aqueduct fed reservoirs (Oleson: personal communication November 1999)

<sup>47</sup> The *mercatores*, or merchants and traders of Rome who were associated with the movement of items such as spices, textiles, pottery and glass between Syria and the Red Sea, might have carried on business at forts along the way—bringing news and

travel and trading, or were they part of a merchant's inventory of saleable goods? Perhaps the owner, if not local, wanting to be reminded of home, or to appear more cosmopolitan, decorated his house with painted scenes displaying themes and designs from Graeco-Roman art. Perhaps in a public or commercial capacity E125 was open to a multi-ethnic clientele to whom the varied cultural artifacts and decoration might have appealed.

Did a retired Egyptian soldier, or an Egyptian camp follower build E125?<sup>48</sup> Although the identity of the fort's garrison at Humayma is not known, Roman troops from the *Legio III Cyrenaica*, brought from Egypt, are known to have been stationed in Arabia as early as A.D. 107.<sup>49</sup> It is at least possible, therefore, that the Egyptian artifacts found in E125 were imported by an occupant of Egyptian origin. It is also possible that the occupant of the house wanted to identify himself as a Roman soldier or veteran who chose to express his Romanness by decorating the interior of his home in a Roman painting style.<sup>50</sup>

It is not impossible that E125 housed a painter with the garrison stationed at Humayma.<sup>51</sup> Remains of fresco fragments (some in position on the

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selling items to the soldiers ( Crawford 1987: 396).

<sup>48</sup> Reeves in Oleson 1999a: forthcoming, suggests that the mud-brick construction of E125 may have been an Egyptian import reflective of the builder's origin.

<sup>49</sup> Speidel 1977: 693-99; Isaac 1998: 336-37 provides inscriptional evidence for the presence of *Legio III Cyrenaica* at Petra and Philadelphia.

<sup>50</sup> Graham 1998: 162 discusses the role houses play in defining one's identity, stating that "the way people build their houses, orient them in space and decorate them encodes cultural meanings that express aspects of identity.

<sup>51</sup> Roman army staff houses, as part of a military *vicus*, are mentioned in Parker 1987: 385.

walls) from the *Principia* in the fort at Humayma share similar polychrome geometric design, but slightly predate E125 frescoes (mid to late second century A. D.).<sup>52</sup> We do not know whether the same painter was responsible for the frescoes in the fort and in E125, but it is not improbable as we know from inscriptions, such as that from Mada'in Salih, that the Roman army had its own painters. Even in the southernmost reaches of the *Provincia Arabia*, the inscription from Meda'in Saleh identifies "... a painter with the Third Cyrenaican Legion."<sup>53</sup>

## V. Conclusion

Together with a brief introduction to Humayma's geographical and historical contexts, this chapter has explored the archaeological and architectural context of the frescoes from E125 and has raised some possibilities about the socio-cultural context of this house and its frescoes. From the evidence presented in this chapter we can confidently identify E125 as a modest house in what may have been a military *vicus* associated with the fort and bathhouse during Roman occupation at Humayma. The artifactual remains, which are representative of Egyptian, Greek and Roman cultures, are intriguing and reflect the multi-ethnic influences present in this military / mercantile

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<sup>52</sup> Descriptions and analysis of the fresco from the Roman fort at Humayma was carried out by Erik de Bruijn and documented in the unpublished Humayma Excavation Project Final Reports, from the 1996 field season. There are numerous frescoes recorded in the western provinces from Roman forts of the late second and early third centuries A.D. (Liversidge 1982: 141-54). Evidence for frescoed Roman forts is extremely scanty in the Roman East, and the presence of fresco from the *Principia* in the fort at Humayma is a rare survival and valuable for increasing our knowledge about the decoration of Roman military architecture.

settlement in Roman Arabia. Of these artifacts, the frescoes have the greatest capacity to reveal clues about the owner's personal tastes and the function of E125.<sup>54</sup> In Chapter Two, I will examine the fresco remains from E125 in detail to further illuminate their purpose in E125.

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<sup>53</sup> Speidel 1977: 694

<sup>54</sup> The information in this thesis represents the state of my knowledge about the site of Humayma and House E125 up to May 2000 when this thesis was submitted to my defense committee. Between May and August 2000 the Humayma project resumed excavation in House E125, however, the brief amount of time between the completion of the 2000 season and the defense of this thesis did not allow for new information obtained from the 2000 field season to be included here. There is still much work to be done in House E125 and it is hoped that future excavation will continue to illuminate and enrich our knowledge of Humayma during its Roman occupation.

## Chapter 2

### **Fresco Style, Motifs and Techniques**

The purpose of this chapter is to provide a thorough description and analysis of the fresco fragments from E125. Through a comprehensive analysis of the motifs, pigments and techniques of fresco application, I show that the E125 frescoes fit within the repertoire of Graeco-Roman painting, and that they reflect local influences as well as contemporary trends in the wall painting of Roman Italy. This chapter also explores the purpose and function of the decoration in each room. I do not repeat basic color tones or measurements of the individual fresco fragments and motifs here, as they are provided in detail in Appendix B. Further citation of parallels and detailed discussions of motifs is provided in Appendix A.

The first of the three sections in this chapter provides a description of the fresco decoration from rooms A, B and C by means of stylistic and artistic analysis. The second section attempts to recreate how the decoration was meant to be perceived by the viewer, and what that reveals about the room's function. Finally, the third section highlights the techniques and pigments used in creating the E125 frescoes.

#### **I. Fresco Description: Room A**

Details of the fresco in Room A have been pieced together from hundreds of fragments excavated from the soil fill, along with the small amount of fresco *in situ* on the room's walls, arch springers and voussoirs. Assembly of these fragments revealed that the room had been decorated in a manner consistent with a painting style popular in third-century Italy. The absence of parallels for this painting style in the Near East suggests that the model was central Italian. At the same time, the fresco employed some decorative motifs

seemingly unique to E125. The decorative approach to Room A, as interpreted from its reconstruction, consists of rectangular or square panels of a variety of sizes, framed by multi-colored banding. These panels are either monochrome or contain polychrome geometric and/or figural scenes. The panels were painted in juxtaposition to one another, at different heights on the walls and arch springers, in a patchwork-like pattern. Ling has shown that this style was popular in Italy during the late second and early third centuries A.D.<sup>1</sup> This so called Severan style of painting belongs to a trend in Roman wall painting which eliminated architectural motifs but combined and reused many other motifs common in previous Roman painting styles. In the late nineteenth century, Auguste Mau named these earlier styles the Four Pompeian Styles. Mau identified four styles of Roman painting based on his analysis of the combinations of various motifs, patterns, and color schemes from the wall paintings in the houses of Pompeii.<sup>2</sup> Mau's analysis outlines the chronological, artistic evolution of Roman painting during the period spanning the last two centuries B.C. and the first century A.D.<sup>3</sup>

... the First [Pompeian Style] had taken the Hellenistic Masonry Style of interior decoration and turned it into bright patterns of abstract blockwork; the Second had opened up the wall with grand illusions of painted architecture; the Third had closed the wall once more and put

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<sup>1</sup> See Ling 1991: 175-6, 178 for Eastern examples of the Severan Style which uses architectural elements between the painted panels.

<sup>2</sup> See Vitruvius *De Arch* VII. 5. 1-4 for a contemporary, and unfavorable, commentary on Roman painting styles of the last quarter of the first century B.C.

<sup>3</sup> For a description of Mau's (1907) Pompeian Four Styles see Ling 1991: 100, and Wallace-Hadrill 1988: 69. For detailed analysis of Roman painting, and examination of the Pompeian Four Styles and those styles which post-date them see Clarke 1991 and Ling 1991. Attempts to label the post-Pompeian Styles as Fifth Style (paintings from the period of Hadrian and the Antonines) and Sixth Style (paintings from the Severan period) have been unsuccessful (e.g., H. Krieger in 1919). Two distinct styles do, however, post-date the Fourth Style and are usually referred to by their period, i.e., Severan style (Descoudres 1983: 60).

emphasis on a framed picture-panel, complemented by fine, coloristic surface-ornament; and the Fourth reintroduced architectural illusionism but substituted lightness and fantasy for the solidity and logic of the Second Style.<sup>4</sup>

Some scholars view the end of the first century as the low point of Roman painting, culminating in the exhaustion and decline in the popularity of the Fourth Style. In the period following the Fourth Style, Roman painting throughout the Empire is described as a series of recycled motifs.

. . . the Fourth Style petered out round the end of the first century, and with its death the great creative surge of Roman wall-painting was largely exhausted; from now on painters tended to be backward-looking and eclectic, ringing the changes on motifs and ideas explored in earlier times. There was thus no fifth or sixth style, merely pastiches incorporating elements of the Second, Third and Fourth, but generally without the clarity and coherence of those earlier manners.<sup>5</sup>

The fresco from Room A in E125 reflects the new aesthetic of post-Pompeian wall paintings, defined largely by “anomalies and deliberate peculiarities,”<sup>6</sup> which emerged during the Severan period. This new aesthetic employs an informal and freehand approach to wall painting. Tools such as the straight edge and plumb bob are no longer used to mark and divide walls into the perfect grids common in the previous Four Styles.<sup>7</sup> The result is a decorative program that emphasizes asymmetries and misalignments of the painted

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<sup>4</sup> Ling 1991: 100.

<sup>5</sup> Ling 1991: 175.

<sup>6</sup> Clarke 1991: 341. For descriptions of Post Pompeian wall painting beginning with Hadrianic and early Antonine wall paintings (A.D. 120-150) see Clarke 1991: 267-303. For late Antonine wall paintings (A.D. 160-193) see Clarke 1991: 305-339.

<sup>7</sup> Clarke, 1991: 341, states that the painting from the Severan period is seen by some scholars as “the end of fine decoration, which had been represented by the maintenance of first-century traditions during the first eighty years of the second.” Conversely, Clarke 1991: 365, states that “The supposed decadence of post-Pompeian decoration has much more to do with the scarcity and poor state of preservation of the material evidence than with a decline in the skills of the decorators.”

panels, creating an appearance of depth on the flat surface of the wall.<sup>8</sup> The Panel Style from the Severan period serves as the closest stylistic parallel, at present, for the fresco in Room A of house E125.<sup>9</sup>

Remains of fresco were found *in situ* on the walls of Room A covering the lower portion of three arch springers along Wall 05, and the wall space between them, to a maximum height of approximately 0.85 m (see Fig. 5). Unfortunately, the plaster on the outside faces of the arch springers (the portions facing into the room) is badly damaged, making it difficult to interpret the details of the decorative scheme. Therefore, description of the decorative program relies heavily on the painted plaster still adhering to the inside facings of the arch springers and that plaster *in situ* on the wall bracketed by the springers. These spaces (labeled from north to south as loci 14, 16, 18 and 20) are on the east face of the north/south wall 05, and are approximately 0.85 m wide. A significant amount of the wall plaster has fallen off of the wall and arch springers in this small area (wall 05 is 5.06 m long and preserved to a height of 0.94 m); however, the surviving fragments on the wall, when combined with the fragments *in situ* on fallen voussoirs and those fragments excavated from the soil, reveal enough evidence for a confident analysis of the decorative style in Room A.

The dado—a painted white field covering the bottom portion of the wall

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<sup>8</sup> Clarke 1991: 350, see esp. 342-54, for a description of painting from the Severan period (also called the panel style by Clarke) from the Inn of the Peacock (Room 9) at Ostia in Italy. Ling 1991: 175-78, esp. plate 192, provides a description of the painting style from the Severan period. Ling does not use the label “Panel Style” for this sort of painting but simply refers to it as Severan work. I will continue to use Clarke’s terminology of “panel style” when referring to the Severan period, and for the painting from Room A in E125.

<sup>9</sup> The Severan period has three painting styles associated with it: the final appearance in Roman wall-painting that uses illusionistic architecture to divide wall surfaces, the Panel Style and the Linear Style (Clarke 1991: 341-61).



**Fig. 5**  
 Room A  
 Wall 05 and arch springers with fresco *in situ*, looking south.

and arch springer—rises from floor level to a minimum height of approximately 0.41 m and up to a maximum preserved height of 0.48 m. In each locus, traces of colored banding appear above the various heights of the dado, which indicates that colored panels were placed at varying heights on the arch springers and wall 05. On those loci bracketed by the springers, the dado rises to meet a pattern of solid colored bands of either pink (locus 16), yellow (locus 14) or double bands of gray above pink (loci 18, 19) which frame white or red or

reddish-yellow central panels. Unfortunately, all loci have either lost their main panels, or, when a portion is extant, as in locus 20, the damage is great and the decorative motif from the central panel is obscure. Fortunately, the fresco fragments excavated from the soil in front of wall 05 are better preserved, as they have been sealed away from the centuries of harsh erosion by sun, sand and wind. Many of the fragments found in the soil are restorable to such a degree that they offer tantalizing glimpses of creative and colorful motifs—but no motifs in their entirety. Nonetheless, these fragments together with the remains of paintings still *in situ* on the walls allow us to recreate to some degree the scenes that decorated the walls of room A.

### Motifs

The catalogue of fresco sites in the Near East given in Appendix A covers the period from the first century B.C. to the eighth century A.D. and includes descriptions of wall paintings from sites in modern Syria, Israel, Egypt and Jordan. Due to the lack of published comparative material from Roman period houses in Jordan, the catalogue has been expanded to include fresco decoration from a wider range of structures and periods. The motifs from E125 include human figures and faces, a painted Greek inscription, curvilinear designs (possibly portions of letters), mythical figures, texturing or marbling, a ribboned wreath held in an eagle's beak, a pedestaled fountain, key patterns, volutes, scrolling, grape clusters, flower buds, horizontal and vertical bands, lines, dots and polygonal designs. Most of the motifs in Room A, with the exception of three motifs that are unique to house E125—the eagle with wreath, fountain and key pattern—can be paralleled in the eastern provinces.

Comparative material for the motifs in E125, collected in Appendix A, is found among the decorative programs in houses from Petra (Ez Zantur),

Kurnab (Mampsis), Wadi Musa, Dura Europos and Palmyra. Tombs at Abila and Capitolias (Beit-Ras) are also a rich source for parallel motifs. In addition, structures other than houses or tombs which contain motifs similar to those in E125, are found at Aila (Aqaba) in the remains of a possible Christian church, at Qasr 'Amra in the bath, at Dura Europos from the *naos* and *pronaos* of the Temple of Bel, the *naos* of the Temple of Zeus Theos, the Mithraeum, the Baptistery, the Synagogue, and in the *frigidarium* of the bath. I have yet to identify parallels in the Near East for E125's pedestaled birdbath motif, the key/maeander motif, or the motif of an eagle holding a wreath, although they are common in Graeco-Roman art and elsewhere.

The number of motifs in the E125 frescoes that find parallels at contemporary sites in the Near East illustrates the popularity in the Roman provinces of simple colored stripes, banded borders, broad strokes and scribbles (imitating marble veneer), mythological scenes and images of the Muses.<sup>10</sup> During the late second century A. D., mythological scenes were on the decline in domestic wall painting in Roman Italy, but found favor as motifs in the tombs, baths and houses of the Roman East.<sup>11</sup>

Although incomplete, the material collected in Appendix A is adequate for providing a broad comparative base for the motifs in E125, and for increasing our understanding of the geographical and artistic scope of domestic painting in the Roman Near East. Regrettably, the amount of comparative material published from houses in the East, and specifically houses in Jordan, remains small.<sup>12</sup> Because of this insufficiency, any attempt to interpret or

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<sup>10</sup> Ling 1991: 173 describes these motifs as popular in Roman frescoes in the Near East.

<sup>11</sup> Ling 1991: 181-82, 192.

<sup>12</sup> Petra in Jordan is a good example of a site where houses have been identified and even excavated since the middle of this century but remained unpublished until the

understand a decorative program from a Roman period house in *Provincia Arabia* is done in relative isolation and with some risk.

The small number of large fresco fragments makes the task of interpreting the painted decoration in Room A even more difficult. It is possible, however, by careful reconstruction and by gleaning information from what little comparative material there is, to attempt a description of the various motifs and scenes which occupied the framed panels painted on the walls and arch springers.

Most of the plaster *in situ* in Room A reveals some portion of a banded panel motif. The plaster in position on the fallen voussoirs and the arch springers depicts multi-colored bands framing monochrome panels of various sizes, but no discernible additional motifs. The plaster *in situ* on the wall between the arch springers is painted with central panels of white, reddish-yellow (locus 20) and one (possible) light red panel (locus 16). Brown, or dark red, may also have been used as the background for the panels, as many collapsed fragments show portions of the panel motif in these colors, yet none survive *in situ*. It is not possible to determine, at this point, whether or not every panel contained a scene or a decorative motif, if figural scenes shared space with decorative motifs, or if each remained separate—framed in a panel of its own. It is possible, however, to group the different motifs into two categories: figural, which includes possible mythological scenes, images of muses, and the eagle with a wreath motif, and decorative, which includes the pedestaled fountain, volutes, geometric designs, scrolling, key patterns, marbling and banding.

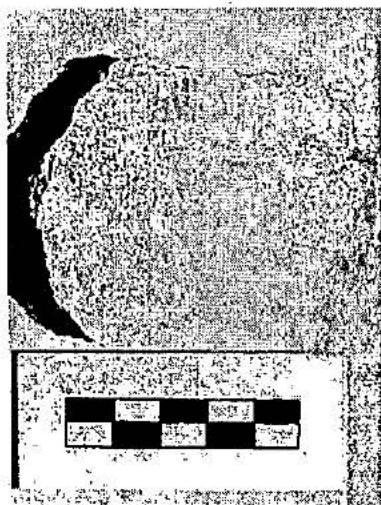
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last decade (Oleson 1999c: 85-7). For current publications of houses and urban development at Petra see McKenzie 1990 and Stucky et al. 1996.

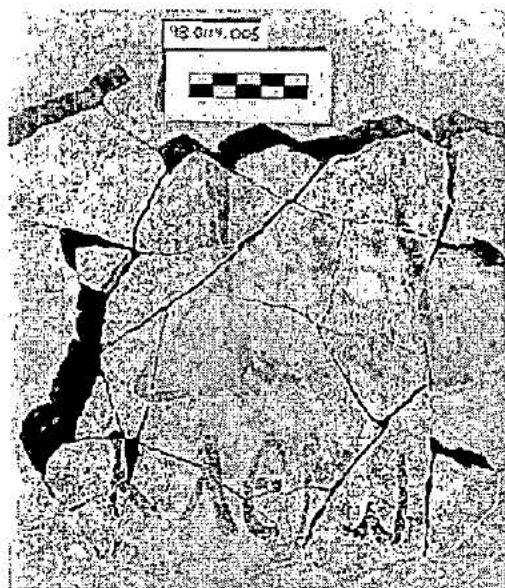
### Human and Animal Figural Motifs

Only the fresco fragments that impart some detail significant for an interpretation will be discussed here. In addition to the fragments reviewed in this chapter, Appendix B contains a detailed catalogue of descriptions of all the fresco fragments processed from E125 during the 1996 and 1998 excavation seasons. When possible, I will refer to either, or both, a catalogue number from Appendix B or a photo plate or drawn image to further illuminate the description of the motif being discussed.

There are numerous fresco fragments depicting portions of figural motifs, the majority of which are human body parts rendered in a pink flesh tone, and outlined in gray or black. Several fragments display what appear to be portions of drapery, usually rendered in varying shades of red to indicate folds or motion of the fabric. Two fragments each show only a human face outlined by a thin gray band. The first fragment (App. B 98.0447.001) depicts a human face in profile and shows skin tone and contours artfully rendered using a blending of pink, light red and a combination of oranges and pinks. The second fragment (App. B 98.0524.001; Fig. 6) depicts a frontal image of a face rendered in a pink skin tone with a blending of pink and yellow shading, and outlined in red and gray. The area above the eyes is rendered with light gray shading, and the area below with light red shading. Perhaps the most significant (restored) fragment from Room A (App. B 98.0114.005; Fig. 7), depicts a complete painted inscription of the Greek name Κλειώ. The inscription is painted in gray below the lower portion of a robed figure, whose drapery is indicated by shades of red outlined in dark gray.



**Fig. 6**  
98.0524.001  
Human face (frontal). Excavated in  
the fresco dump in Room H.  
Possibly originally from the figural  
scenes in Room A.



**Fig. 7**  
98.0114.005  
Restored fragment showing  
portion of a robed figure. The  
painted inscription identifies Clio  
the Greek Muse of History.  
Excavated in front of wall 05 in  
Room A.

In their original position on the walls of E125 these fragments were part of a greater artistic plan depicting one or a series of mythical scenes. Painted panels from this period often pictured iconographical motifs such as maenads, pans, satyrs, poets, muses and gods.<sup>13</sup> Furthermore, in the Roman East, the

<sup>13</sup> Clarke 1991: 365.

written name of a god or a muse often appears together with its respective image in order to identify scenes or iconography that might have been unfamiliar to eastern eyes.<sup>14</sup> Thus, it is safe to assume that the robed figure from Room A depicts Clio (Κλειώ) the Greek Muse of History. At present, this Muse is the only identified mythical figure from E125. That she was alone on the wall of E125 is unlikely: the Muses were regularly depicted in art accompanying one another or in the company of other gods.<sup>15</sup> Moreover, the survival of a high concentration of figural fragments suggests that there was originally a lively assortment of iconographical representations on the walls of this room. The largest restored figural fragment from Room A (App. B 98.0114021) depicts a winged figure possibly holding a pink ribbon, with a partially bare, raised right arm and one shoulder covered by a reddish-yellow colored cloak fastened with a *fibula*. As an appropriate addition to the mythical theme of Room A this restored fragment echoes many of the painted images of Cupid (or Eros) and, to a lesser degree, the winged Victories found on wall paintings throughout the Empire during this period.<sup>16</sup>

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<sup>14</sup> Ling 1991: 183. As not all easterners could read Greek, its use may have also served to impress the viewer.

<sup>15</sup> On depictions of the Muses in art (many of which show Muses in the presence of gods—mainly Apollo) see Bonamici 1992 VI, 1: 657-85.

<sup>16</sup> E.g., Mampsis is the closest geographical parallel for a cupid figure, but does not show the same coloring or body position as the figure from E125 (see Negev 1988: 158, photo 161). The closest stylistic and chronological parallels for the E125 winged figure are from Roman Britain. Painted Cupids from a late second/early third century A.D. villa at Droitwich, and from a villa/bath-building at Southwell, dating from same period, both show Cupid with a raised right arm, with wings peeking from behind the figure and wearing some kind of loose cape (see Davey 1982: 114, 156, plates XLIII and LXIX). For examples of Eros/Cupid standing with one arm raised as if reaching behind for arrows carried on his back (in many of these examples the winged figure is also wearing a loose cape) see Blank 1986, III, 2: 698, 707, 709, 722, plates 301, 419, 422, 456, 644. Winged Victories are found throughout the eastern provinces as seen in the bath at Dura Europos (see Perkins 1973: plate 28), and in a tomb at Mugharat el-Djedidah (see Goodman in Negev 1988: photo 156).

A restored fragment which shows portions of a dark red bud wreath with trailing tendrils or ribbons held in an eagle's beak is problematic (App. 96.0516.002; Fig. 8). The wreath is commonly depicted in ancient art in combined motifs with eagles or mythical figures or inscriptions.<sup>17</sup> Unfortunately, my survey of fresco sites (App. A) did not yield any parallels in the eastern provinces for the combined eagle and wreath motif. Instead, many painted examples from the Roman East show the wreath motif depicted with images of Victory.<sup>18</sup> Moreover, there seems also to be a significant lack of painted representations in the Near East of the eagle motif. It is curious and frustrating to find no parallels for the E125 eagle in the Roman East. The eagle motif is common in Graeco-Roman art and is a familiar motif in the paintings from other Roman provinces.<sup>19</sup> Most of the artistic evidence in the Roman East for the eagle motif is found in Nabataean sculpture and carved relief,<sup>20</sup> but in these examples the eagle is usually depicted with a snake and never with a wreath. The eagle head rendered in a profile view is the one similarity that the E125 eagle shares with these sculptured images.<sup>21</sup>

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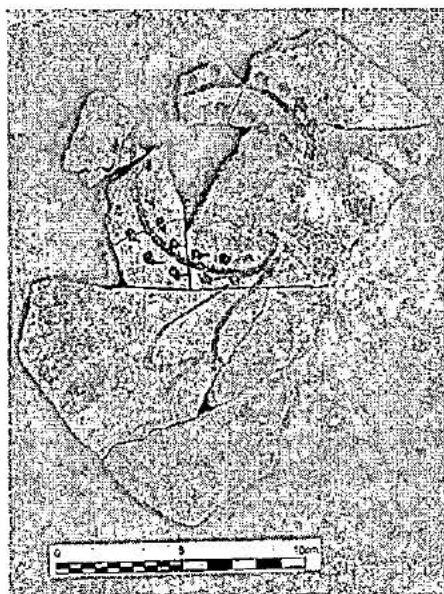
<sup>17</sup> Kraeling in Hachlili 1998: 49-50.

<sup>18</sup> E.g. images of Victories holding wreaths are found in the frescoes from Mamphis (Negev 1988: photo156) and Dura Europos (Perkins 1973: plate 28); see Appendix A for further details.

<sup>19</sup> The motif of an eagle holding a wreath is found in other Roman provinces. For example, Schaaf 1997: 520 contains an image of a similar motif from Colonia Ulpia Traiana, Xanten in Roman Germany showing an eagle holding a thin-line, ribboned wreath in its beak—the image occupies a space between colored bands.

<sup>20</sup> Images of eagles in Nabataean sculpture are found in Hallabat, Petra, Dura Europos, Palmyra, and Ma'in among others. For sculptured images of eagles see Glueck 1965: 304-310.

<sup>21</sup> The eagle also appears later in the Byzantine period as a symbol of life and resurrection in a mosaic from the Church of the Deacon Thomas in Jordan (Piccirillo 1993: 187).



**Fig. 8**

98.0516.002

Restored fragment excavated in Room A: eagle with wreath

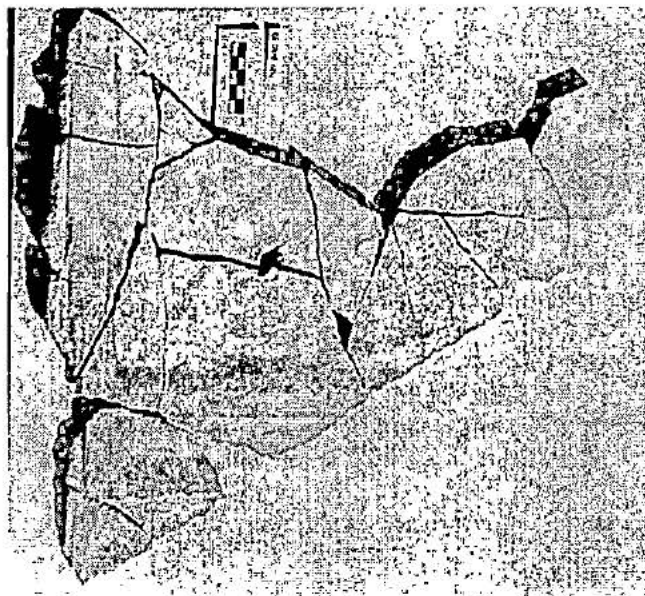
### Decorative Motifs

It is difficult to interpret the possible arrangement on the walls of E125 of the decorative volutes, key pattern, scrolling, grape clusters, marbling, banding and geometric designs. Regrettably, most of these fragments are extremely damaged and non-restorable and provide little information concerning their use in the overall decorative scheme of the room.

Even the more complete fragments showing the volute motif and the key motif are difficult to place within a decorative scheme. The fortunate survival *in situ* of a banded panel containing a pedestaled fountain (locus 20) is the only evidence we have that motifs may have stood on their own within a framed panel. This evidence, however, is inconclusive due to the missing top portion of the wall and, therefore, the missing upper part of the fresco, which may or may not have held additional motifs. We do have tenuous evidence for an additional motif in this panel based on a restored fragment (App. B 96.0504.035) showing a

portion of a motif that may represent a bird's long head or tail feathers and that matches in color the pedestaled fountain panel. The fountain is a common motif in Graeco-Roman art, but one that again does not have a contemporary Near Eastern parallel. The fountain motif is a standard decoration in garden frescoes from Roman Italy, but not always depicted as a birdbath.<sup>22</sup>

Concerning the volute motif, we know from a restored concave corner fragment (App. B 98.0114.001; Fig. 9) that a loosely wound volute occupied space within a brown, or dark red, panel framed by a double banded gray and red border. Whether or not this motif belonged to a larger scene is unclear.



**Fig. 9.**  
98.0114.001

Restored corner fragment showing bordered panel with volute motif.  
Excavated in Room A.

<sup>22</sup> E.g. there is a pedestaled fountain in the garden fresco in the Casa del Frutteto in Pompeii from the early first century A.D. (Bernard 1973: Pl 48); see also the pedestaled fountain in the fresco from the House of the Orchard in Pompeii from the early first century A.D. (Ling 1991: 151).

Unlike the scrolling tendrils of vine volutes found in frescoes throughout the Roman East,<sup>23</sup> the E125 volute motif is bereft of any foliage and is rendered in a more stylized manner.<sup>24</sup>

The key motif (App. B 98.0122.001 Plate A3, 98.0345.12 and 98.0114.011, Fig. 10) is set within combinations of reddish brown, yellow, gray, pinkish white and light green banding. The pattern itself is made up of a horizontal row of upturned key shapes, formed like the letter "L" and painted a reddish or purplish-brown color. The key motif is often found running parallel to portions of a motif showing thick band abutted by evenly spaced squares along its length (labeled the gap-tooth motif; App. B 96.0077.010, 96.0504.029, Plate A16) with two parallel lines painted below (e.g., Appendix B 98.0346.012, Plate A9). As with the eagle motif, no parallels were found in the Near East for this painted, simplified key/maeander pattern.<sup>25</sup> Even with so few remains and no exact parallels, it is clear that this combination of the key and gap-tooth motifs appeared as a decorative frieze on the upper regions of the walls.<sup>26</sup>

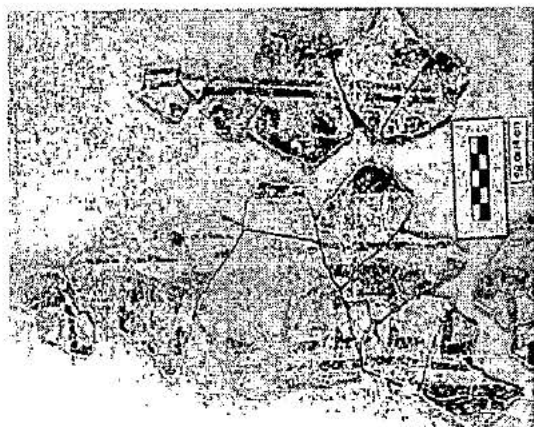
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<sup>23</sup> See Appendix A, esp. Abila and Bayda.

<sup>24</sup> Davey 1982:152, No 31 (D) contains an example from a fourth century villa in Roman Britain at Rudston, Yorks, of a large restored corner fragment flanked on each wall by a decoration of repeating white and purple volutes set on a wide horizontal band. This example provides a close stylistic parallel for how the volutes in E125 may have been used.

<sup>25</sup> E.g., The maeander motif is the closest artistic parallel that I can find for the key motif and how it may have been used on the walls of E125. Simplified maeander motifs closely resembling the key motif in E125 are found as decoration on Greek Orientalizing vase paintings from the seventh century B. C., as seen on a Corinthian skyphos from ca. 600 B.C., and on a Proto Attic oinochoe from Aegina ca. 650 B.C. The simplified key motif appears as a maeander in funerary paintings at Paestum from the late fourth century B.C. (Maiuri: 1953: 16).

<sup>26</sup> This gap-tooth motif does find a parallel in a mosaic from Room 4 in the Qasr Hallabat in Jordan. At this location the motif appears as detailing which frames a central panel depicting a hare nibbling on grapes (see Piccirillo 1993: 347). Appendix A does not contain a parallel for this motif.



**Fig. 10**

98.0114.011

Top of picture shows portions of the gap tooth motif.

Bottom of picture shows the key motif set within colored banding.

Excavated in Room A.

Other identifiable decorative motifs from Room A include a flower bud (Appendix B 96.0071.015), with parallels located in the tombs at Abila (see Appendix A), and an interesting example of a polychrome banded polygon framing a white interior (Appendix B 98.0537.019), which also finds a parallel at Abila in the polygonal motifs painted on the ceiling of tomb Q.<sup>27</sup>

### Rooms B and C

Rooms B and C contained none of the figural or decorative motifs found in Room A; instead, a less ambitious decoration was painted on the walls of these two rooms. The fresco fragments excavated from the soil fill in Rooms B and C show a simple decoration in red lines and/or daubs painted on a white background. Stylistically and artistically less sophisticated than the other decorations from E125, these lines and daubs nevertheless belong to a genre of motifs with equal significance to those in Room A.

Red lines on a white background appear as decoration in secondary or service rooms in houses from Roman Italy.<sup>28</sup> Indeed, as I will show next, simple

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<sup>27</sup> See Abila in Appendix A. This motif is found widely used in Roman painting as far away as Roman Britain (see Davey 1982).

<sup>28</sup> van Binnebeke 1993: 19 describes simple red lines and daubs in service and secondary rooms in houses in Herculaneum.

two-tone decorative patterns were relied on for delineating domestic space and room function, as were their more elaborate and colorful counterparts.

## II. Decoration and Room Function

As an external entrance has yet to be identified for E125, it is not possible to recreate what decoration one would have met upon entry, and what decoration would have then greeted or guided the viewer moving from room to room.<sup>29</sup> Nor is it possible to recreate the flow of traffic throughout the house without further excavation to define walls, doorways and an external plan.<sup>30</sup> We can, however, speculate on how the frescoes from Rooms A, B and C were meant to be viewed, and what they tell us about the function of the rooms with which they are associated.

To date, the only identified entrance to Room A is located in the northeast corner, in the north/south wall (Wall 10). From this corner, one would have stepped onto the cool flagstone floor and immediately been enveloped in the colorful imagery blanketing the walls and arches of this room. Stunning in its contrast to the landscape of the desert outside, the fresco in Room A would have provided a refuge from the vast, scorched Hisma and from the busy traffic of Humayma itself.

The extent and the motifs of the decorative program in Room A suggest that this was most likely a primary and public room—showcasing the owner's Romanness and cosmopolitan tastes. Grahame, writing on houses in Pompeii,

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<sup>29</sup> Wallace-Hadrill 1988: 77-96 emphasizes that decoration in a Roman house guided the social flow of activity. The architecture and decoration would have channeled the owner's family, servants and friends through the house.

<sup>30</sup> It is the goal of the excavation season in 2000 to further define the internal space and the external plan for E125

has shown that 'Roman' and 'Romanized' styles of material may be asserting social status.<sup>31</sup> This may be the case for E125, as the wall paintings from Room A reveal the owner's knowledge of the current trends in Roman Italian wall decoration and thereby displaying his status to the community. Millett, in his model of Romanization, states that by using the symbols of *Romanitas* and by emulating Roman material culture, the élite in a community could reinforce their social position through this identification with the external power of Rome.<sup>32</sup> As a sizable community,<sup>33</sup> Humayma was also host to travelers and settlers who may have provided the audience for such a display. The fresco decoration from Room A would have been a familiar status symbol in the Roman world.

Implicit in the mythological scenes of Room A are personal statements rooted in a tradition of Roman public expression. Private art was meant to project the prestige, social rank and good taste of the owner to a public audience.<sup>34</sup> The presence of the Muses, specifically, as visual expressions of the "patron's literary interest—or at least literary pretensions,"<sup>35</sup> signified a learned atmosphere. Mythical scenes in Roman domestic wall painting evolved in the early Empire as a prestigious measure of social importance.<sup>36</sup> Wall paintings of

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<sup>31</sup> Grahame 1998: 176.

<sup>32</sup> Millett 1990: 38.

<sup>33</sup> See Chapter One for details of Humayma's military and commercial nature.

<sup>34</sup> Gazda 1994:6.

<sup>35</sup> Clarke 1991: 182.

<sup>36</sup> Wallace-Hadrill 1988: 72-7 attributes the shift in emphasis (public to private) to the corresponding shift in the locus of political power of the early Empire: "no longer won out in the open, in forum and senate, power is generated through informal contacts, at drinking-parties, in the corridors and bedrooms of the palace." (73).

mythical scenes and images of the Muses were most often reserved for decoration in rooms meant for discussions about art and literature.<sup>37</sup> Displaying such art would have indicated the mark of a cultivated Roman. The use of certain decoration as a “milieu-creating element”<sup>38</sup> is expressed by Cicero, writing in the first century B. C., when he explains his choice of decoration for his library: “. . . [the Muse] would have been suitable for a library and would harmonize with my literary pursuits.”<sup>39</sup> These scenes remained status symbols grounded in a tradition of the aristocratic expression of public self-image long after they had trickled down into the houses of non-aristocrats.<sup>40</sup>

In contrast, Rooms C and D were most likely not meant to be viewed by outside visitors. The simple decorative scheme would have alerted anyone entering these rooms that there was no cultured refuge here. The contrast between the decoration from Room A and that found in Rooms B and C, concurs with the contrasting descriptions of the highly visible and the ‘invisible’ areas identified in houses in Roman Italy.<sup>41</sup> In E125, the size of room B and its two-tone line and daub decoration convey a secondary use. Similarly, the simple line and daub decoration associated with the wash-basins in Room C

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<sup>37</sup> Clarke 1991: 182 describes the presence of Muses in *oecus* 15 in the House of the Maeander at Pompeii as a *museion*--a room dedicated to the Muses. Clark continues to say that this type of room, meant for discussion and performance of the literary and lively arts, survived long after the destruction of Pompeii.

<sup>38</sup> Bek 1980: 173.

<sup>39</sup> *Ad.Fam.* Vii, XXIII; 2. Although Cicero is writing about a statue, the main point is his desire to have the muses adorn his library as symbols befitting his literary pursuits.

<sup>40</sup> The evolution of painted Greek masterpieces from the public to the private sphere, culminated in the Roman Third and Fourth-Style wall paintings of elite houses, and were widely “mimicked by those below them.” (Wallace-Hadrill 1988: 77).

<sup>41</sup> Wallace-Hadrill 1988: 80-1.

expressed a utilitarian function to those entering this room.<sup>42</sup> The aim, according to Wallace-Hadrill, in creating contrasts in the decoration between rooms in a Roman house “was to render the low-status areas ‘invisible’ to the visitor.”<sup>43</sup>

Painted decoration held more than just an aesthetic appeal for the Romans; it created a visual dialogue relaying how the owner wished to be perceived, what activity took place in each room, and, finally, it maneuvered the visitor through the house with visual cues signaling the way.<sup>44</sup> In small houses like E125, where the placement of rooms is much less predictable than in larger houses,<sup>45</sup> the contrast in decoration from room to room would have helped visitors to navigate through the house visually.

In addition to motifs serving as visual communicators, the dialogue between painting and viewer was also spoken in tonalities of color, and special significance was placed on the pigments used in frescoes: “rich polychromies lend especial prestige” to the house and the owner.<sup>46</sup> The application of polychrome fresco in Room A and two-tone fresco in Rooms B and C conforms to this conceit. That a hierarchy of pigments existed in Roman painting is evidenced in the writings of Vitruvius and Pliny in the thorough attention they give to pigments and their methods of application.<sup>47</sup> But, as with the painting

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<sup>42</sup> Little light and poor decoration often defined secondary rooms in small houses (Clarke 1991: 25). On simple designs in service rooms at Herculaneum see van Binnebeke 1993:19. On the two tone, stripe design in the villa at Torre Annunziata (‘Oplontis’) associated with low status areas see Wallace-Hadrill 1988: 80.

<sup>43</sup> Wallace-Hadrill 1988: 81.

<sup>44</sup> Wallace-Hadrill 1994:17-37.

<sup>45</sup> Clarke 1991: 25.

<sup>46</sup> Wallace-Hadrill 1988: 75.

<sup>47</sup> Vitruvius *De Arch* VII-XIV and Pliny *NH* XXXV for commentary on wall painting, and detail analysis of ancient pigments.

style and the selection of motifs in E125, the plastering technique and the choice of pigments in E125's frescoes reflect the craftsman's knowledge and appreciation of Roman wall painting. At the same time, these choices also communicate a flavor of independent (personal) inspiration.<sup>48</sup>

### III. Techniques and Pigments

Though mythical scenes and a wide range of sophisticated motifs are depicted in E125, the actual painting technique is inconsistent and even sloppy, betraying, at times, an amateurish approach to wall painting. Fragments often reveal lengthy drip marks or body parts that would normally terminate in hands and feet instead trailing off without closure (e.g., Appendix B 98.0124.002). At other times, however, the motifs show great attention to detail; for example, the lettering from the Greek inscription is painted in a strong confident hand, and facial features are carefully rendered by shading. This inconsistency in the painting is most notable in the clearly executed, straight lines of some orthogonal borders that are painted alongside borders of lesser quality. The combination of techniques suggests either that more than one painter worked on the E125 fresco or that a single painter was hurried and, or, inexperienced. The drip marks on some fragments suggest that the paint and plaster were not prepared properly.

We know from the writings of Vitruvius and Pliny that the preparation of plasters and mortars for wall painting was considered of equal value to the efforts and precision of the painting itself. Both authors cite the high standards

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<sup>48</sup> A fitting example of mixing Roman and personal (provincial) tastes is seen in a private house in Dura Europos, where the owner, for reasons known only to him, chose to decorate his living room with a decidedly Roman funerary scene (Perkins 1973; Appendix A Dura Europos (6)).

of earlier Greek painting and plastering in their discussions of Roman painting and architecture. Vitruvius, who wrote an architectural treatise on the ideal (elite) Roman house, on giving advice for the preparation of walls for painting, recommends at least seven layers of plaster and powdered marble to be laid before painting.<sup>49</sup> An analysis of plaster and pigments from E125 provided below reveals an attempt at the sophistication espoused by Vitruvius, reflected faintly in the E125 artist's simple and uncomplicated approach to the preparation and painting of this modest domestic structure.

### Plaster

In the various rooms of E125, a sandy white plaster was applied directly to the smooth mud-brick face of the walls and to the mudplaster coating on the arch springers and the arches. Only one layer of plaster was applied to the interior of E125, ranging in thickness from 0.003 m to 0.035 m. Chemical analysis of the plaster revealed mainly compositions of sand (quartz) and calcite.<sup>50</sup>

Roman painters produced superb works of art using the powdered marble component that Vitruvius mentions (VII. 3, 5-7) to add a high gloss finish to the painting.<sup>51</sup> Mixed in with the plaster or the pigment, powdered

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<sup>49</sup> Vitruvius *De Arch* VII. 3, 5-7.

<sup>50</sup> Corbeil and Helwig 1999; Fragments were analyzed using a scanning electron microscope equipped with an x-ray energy spectrometer (SEM/XES); x-ray diffraction (XRD) was also used to identify the major crystalline components in the support and pigment layers. Fourier transform infrared (FTIR) spectroscopy was used to determine if any organic binding medium was detectable and to further characterize the pigments. In cases where pigments could not be fully characterized by the above methods, they were examined by polarized light microscopy (PLM). Additional analysis in the field also showed the plaster to contain small pebbles, carbon, and lime inclusions.

<sup>51</sup> Rozenberg 1997: 64 discusses marble dust in the fresco from Herod's palace at Jericho, in which she states its use predominantly by rulers in Imperial houses and

marble worked as a polishing agent, creating a brilliant, shiny finish in wall paintings.<sup>52</sup> Calcite, as a main component in the E125 plaster, was undoubtedly a cheap alternative that worked in the same way as powdered marble.<sup>53</sup> The calcite from E125 was detected in the analysis as a thin layer between the fresco support and the pigment layer, and would have produced an attractive and durable finish to the colorful frescoed scenes.<sup>54</sup>

### Pigments

Pigment analysis has been completed on the E125 fresco fragments bearing the colors white, yellow, red, brown, pink, green, black, and gray. Different tonalities resulting from the overlap of these colors, or from mixing pigments, were also employed enthusiastically in E125. In addition to defining the fresco technique, pigment analysis provides the mineral components of the color—allowing us to trace the geographical source of the pigment. This knowledge is important for several reasons. Knowing where the pigments were made and from where the minerals originate can reveal their economic worth in the ancient world. Rarely used and, or, imported pigments often came from minerals found in remote areas of the Empire, or from rare minerals; therefore, their presence, or absence, in wall paintings discloses significant information about the tastes and economic standing of the patron.<sup>55</sup>

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palaces from Italy and Israel.

<sup>52</sup> Davey 1982: 58-9.

<sup>53</sup> As with the grains of marble, the calcite contained in the intonaco of the plaster would have prevented the surface from breaking up under the pressure exerted in the polishing process (Mora 1984: 93).

<sup>54</sup> Davey 1982: 52 states that "varieties of calcite will take a polish from simple burnishing."

<sup>55</sup> E.g. in Pliny *NH* XXX. 30. 44-7, 50, rich pigments, such as red minium (cinnabar) are

White appears in some examples of the decorative banding and is used extensively as a background color in Rooms A, B and C. This liberal use of white in the primary and secondary rooms of E125 reflects the increasing dominance, at the end of the second century A. D, of white-ground decoration in all rooms in a Roman house.<sup>56</sup> Prior to this, the use of white was limited as a dominant background color specifically to be used in secondary rooms.<sup>57</sup> We cannot determine whether or not the E125 painter was aware of this trend or if, due to the local availability of calcite, the use of white might simply have been an expedient and therefore an economical choice for the painter of E125.<sup>58</sup>

In Room A, yellow appears in decorative banding, as a secondary background color in the panels, and is used as well in varying tonalities for accents in the figural motifs. Pigment analysis revealed that this yellow was made from iron oxide hydroxide—also referred to as yellow earth or yellow ocher. Vitruvius lists this as one of the natural colors extracted from the ground and employed extensively in fresco painting.<sup>59</sup> Pliny describes the various yellow ochers used for painting shadows, different types of light and for

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described as expensive imports to be charged directly to the customer, as the pigment was too pricey to be included in the decorator's contract.

<sup>56</sup> Davey 1988: 31.

<sup>57</sup> Wallace-Hadrill 1988: 74 identifies white in the houses of Roman Italy to be the most common pigment used for background color in secondary rooms in rich and modest Roman houses alike.

<sup>58</sup> The results of chemical analysis of white fragments revealed the presence of calcite, a common mineral in the area north of Humayma. Rozenberg 1996: 65 states that calcite can be found in regions of Israel, including the Judean Desert.

<sup>59</sup> Vitruvius *De Arch* VII. 7, 1.

painting squared panel designs.<sup>60</sup>

Red is also used generously in the fresco from E125; in different tonalities as a background color in panels, in banding motifs and as decorative color in outlining and shading. The red pigment has been identified as red ocher (a mixture of hematite and associated minerals such as clay). Like the calcite found in the white pigment, hematite also would have been easily accessible for the painter of E125, as it is found in both Israel and Jordan.<sup>61</sup> Pliny lists red ocher as a somber color and suitable in plasters because of its drying property.<sup>62</sup> In antiquity, red ochre, like the red synapse produced in Africa and Egypt, was used largely as color for panels, and had the added attraction of approximating the brilliant red of expensive cinnabar or minium.<sup>63</sup> The prolific use of red coloring from red ocher in the painting from E125 could possibly have been an attempt to imitate the more elaborate and costly paintings of villas in the Near East or even Roman Italy.<sup>64</sup>

Brown appears in E125 in banding and as background color in panels. Pigment analysis shows that this color was comprised of a mixture of green earth and red ocher (calcium carbonate, hematite, kaolin and quartz). This color

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<sup>60</sup> Pliny *NH* XXXIII. 56, 158-60.

<sup>61</sup> Rozenberg 1996: 66.

<sup>62</sup> Pliny *NH* XXXV. 15, 35-6.

<sup>63</sup> Pliny *NH* XXXIII. 13, 31.

<sup>64</sup> Based on passages from Pliny (*NH* XXXIII. 39, 117; XXXIII. 40, 118) Rozenberg 1996: 67 writes that because of its high price and the Roman monopoly of its production cinnabar was used exclusively in the paintings in rich Roman homes. Cinnabar has been found in the paintings in the House of Augustus in Rome, the House of the Mysteries at Pompeii and in Herod's palaces in Jericho and Masada.

was probably a standard on the painter's palette in E125 for tinting reds and yellow. Brown, as with the artist's other color choices, seems an economical choice, as its mineral components are found in Jordan.

The pink color from E125 is used exclusively in fragments showing figural body parts.<sup>65</sup> The use of pink for human flesh tones suggests an effort by the artist to create a Western look to these paintings. Pink flesh-tones for the figural motifs imply an attempt at imitating a Graeco-Roman technique, perhaps copied from an artist's copybook.<sup>66</sup> It is worth noting that there is no evidence in the E125 fresco of flesh tones rendered in browns. Elsewhere in the Roman East, the use of brown pigments for skin tone in figured scenes is attributed to a local tradition or a local artist or as reflective of the indigenous inhabitants.<sup>67</sup>

The color green is found sparingly in the banding motif and background of the key pattern, and used in the stem of the flower bud motif. Chemical analysis identified this pigment as green earth—a traditional fresco pigment and well-known to painters in antiquity.<sup>68</sup>

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<sup>65</sup> Chemical analysis identified pink as comprised of mostly calcium carbonate and sanidine with traces of kaolinite.

<sup>66</sup> On artist's sketchbooks or copy books often accredited in analyses of Roman wall paintings see Clarke 1991: 61. Perkins 1973 also mentions painters reliance on artists' copy books in her discussions and analysis of the paintings from Dura Europos.

<sup>67</sup> E.g. see Dura Europos in Appendix A, for mention of skin tones rendered in brown; Goodman in Negev 1988: 147-62, esp. photos 150-1, documents frescoes at Mamphis showing male figures rendered with a brown skin tone.

<sup>68</sup> Pigment made from green earth is found fresco fragments from Jericho used sparingly in stripe and band motifs. According to Vitruvius (*De Arch* VII. 7,4) and Pliny (*NH* XXXV. 29-48) the best quality of green came from Smyrna in Turkey; however the pigment from Jericho was produced from the clay material celadonite and most likely imported from ancient mines in Cyprus. The green pigment from Masada was identified as a mixture of Egyptian blue and ocher (Rozenberg 1997: 69). In each case

Black in E125 is used for simple outlines, and to produce the color gray when it was applied on top of other colors. Chemical analysis of the black revealed it to be the only pigment from this site applied in the *fresco secco* technique.<sup>69</sup> Furthermore, the results showed that the sample contained particles of unidentifiable charred material. This detail is consistent with Vitruvius' description of the black used by fresco painters as comprised of soot from charred wood.<sup>70</sup> Pliny also mentions that soot from bathhouses was used to make the color black used in fresco painting.<sup>71</sup> The E125 painter would have had a convenient supply of this raw material from the bath located nearby; therefore we would expect to find black applied throughout E125. Its use, however, is limited to Room A. The use of black in Roman houses is usually restricted to rooms of special scale, grandeur and importance.<sup>72</sup> Because black was found only in Room A in E125, its presence may suggest a primary function or a special status for this room in relation to Rooms B and C.

The artist of E125 made use of locally accessible minerals for the frescoes in Rooms A, B and C. This is to be expected, if the artist was a local and familiar with the area or if the owner was of modest means and simply could not afford to import pigments. The principal colors chosen for the background panels

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the green is of high quality and used in small amounts. The green earth found on the E125 fragments is composed of minerals found locally.

<sup>69</sup> *Fresco secco* is the application of pigments to a dry plaster support--sometimes on top of other pigments already in place.

<sup>70</sup> Vitruvius *De Arch* VII. 10, 1-4.

<sup>71</sup> Pliny *NH* XXXV. 25, 41-4.

<sup>72</sup> Wallace-Hadrill 1988: 75.

(white, red and yellow) are all soft, clay-based pigments which can be polished to create a shine; similarly, the kaolin found in the pigments used in coloring the motifs would have produced the same effect.<sup>73</sup> The choice of pigments, and the manner in which they were used, reveals a certain level of technical skill and knowledge of domestic fresco painting that compliments the ambitious motifs and decorative arrangement of E125.

#### IV. Conclusion

This chapter has shown that the painter(s) of E125 was familiar with the Western conventions of wall painting. This familiarity is evidenced in the decorative arrangement, which closely resembles the popular Severan Panel Style from Roman Italy, and in the reliance on motifs common in Graeco-Roman art. I have shown that a hierarchical placement of motifs and color was used to delineate domestic space in E125 to express the owner's cosmopolitan tastes and Romanness. Close analysis of the decorative program and painting technique also revealed an aspect of personal flavor and local influence in the E125 frescoes.

Finally, this Chapter illuminated the significant need for further excavation and publication of domestic frescoes in Roman Arabia. The last decade has seen an encouraging growth in the corpus of work on Roman painting in the eastern provinces. Still, the scantiness of published comparative material for E125 from Roman Arabia in many cases resulted in having to look elsewhere in the Roman Empire for parallels. This Empire-wide search for parallels was valuable for placing the E125 frescoes in a broad geographical and

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<sup>73</sup> The polishing of ancient wall paintings was executed with a hard instrument such as a mallet, a little trowel or a spatula used to compact the fresco in order to reinforce it and to smooth or polish the surface ( Mora 1984:93, 98 ).

artistic context by accentuating the universality of the styles, motifs and techniques of Roman painting. In Chapter Three I will review the current scholarship on houses in the Roman East and continue to search for, and examine, parallels for E125 to situate it more firmly in a Near Eastern context.

## Chapter 3

### Decorated Houses in the Roman East

In the last two decades, archaeologists and social historians have turned their attention to the excavation and investigation of houses in the Roman Empire.<sup>1</sup> In archaeology, this focus has resulted in excavation and publication objectives that center on classifying Roman domestic architecture by location and typology and on the illumination of ancient lifestyles and living conditions in all areas of the Empire. In the past, remains of Roman houses (especially those outside of Italy) have often been overlooked, discounted as unimportant or simply recorded and forgotten by archaeologists and scholars.<sup>2</sup> Recently, renewed scholarly interest in houses throughout the Roman Empire, especially in the Near East at sites in modern Jordan, Israel and Syria, has focused attention on Roman domestic architecture of ancient communities throughout these provinces. The purpose of this chapter is to situate E125 in this developing body of work on houses in Roman Arabia. In order to do this, I will draw on the available archaeological evidence concerning domestic architecture of the Roman East.

This chapter contains three sections. The first is a review of the scholarship on houses in the Roman East as compared to the other provinces of

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<sup>1</sup> This shift in archaeology from a concentration on public structures to domestic architecture coincides with the increased attention given to Roman family studies in the last two decades. See Bradley 1991, Dixon 1992, and Rawson 1986 for examples of current scholarship in the area of Roman Family studies. For an overview of current scholarship in Roman family studies see Dolansky 1999: 4-22.

<sup>2</sup> This point is also made by Halladay 1997: 94, who states that “[h]ouses are the most common architectural form encountered and one of the most neglected, whether in terms of fieldwork, reporting, or interpretation.”

the Empire. The second section examines the building materials and design of E125 and includes a number of parallels from Roman Arabia which help us to understand E125 better. Finally, I review the place of E125 in the architecture of the Roman Near East and conclude by discussing E125 as a relevant addition to the developing scholarship on domestic structures in the Roman Empire.

## I. Scholarship on Roman Houses

### House E125

The comparative material collected in this chapter represents the meager scholarly analysis of houses in the Roman Near East. My search for parallels for the E125 house in Roman Arabia and other eastern provinces has turned up a small number of diverse building plans and stone structures with decoration ranging from painted stucco and frescoes to elaborate mosaics. These structures are referred to in the literature as houses, mansions or villas, but without any clear definition of the meaning of these categories. The apparently arbitrary assignment of these terms is not limited to the eastern provinces but occurs in studies on houses throughout the Empire. For example, Percival describes the term 'villa' as encompassing buildings ranging from those that are considered little more than hovels to those comprising "an establishment so vast and palatial that its ruins are mistaken for a town."<sup>3</sup> Interpretations of the remains of domestic structures would seem to depend on the wishes of the individual

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<sup>3</sup> Percival 1976: 51.

archaeologist or historian.<sup>4</sup> Percival's examination of the ancient sources revealed that the term "villa" was most often applied to rural houses with "connotations of luxury or relaxation, and in most cases a single house rather than a group of them."<sup>5</sup> In comparison, Smith defines the term villa as "the house and adjoining buildings within an enclosure or courtyard" in which we can include farming villas, palaces, and luxury villas.<sup>6</sup> Although most often referred to in a rural context, the term villa is sometimes also used to define the architectural remains of large and wealthy urban town houses.<sup>7</sup>

Given the incomplete plan of E125, I have chosen to refer to this structure simply as a house; this category seems the most free of presuppositions and leaves room for future exploration of E125's plan. In marshalling comparative material for E125, however, I will not dismiss evidence from domestic structures based on their assigned status as a villa, mansion, house, cave dwelling or the like. Instead, in light of the already limited selection of published domestic structures in the Roman East, I have drawn on all structures which are referred to within current scholarship that have characteristics relevant to the analysis of E125.

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<sup>4</sup> Rossiter 1993: 449 recently stressed the growing awareness among scholars toward acknowledging the need to clarify terms such as 'villa.'

<sup>5</sup> Percival 1976: 13.

<sup>6</sup> Smith 1977: 11.

<sup>7</sup> See McKay 1975: 226 for town houses in Roman Africa.

## East and West

Several key studies of houses throughout the Roman Empire in the last half of this century have increased our understanding of domestic structures as important social and economic institutions. Scholars such as Percival, Smith, Wallace-Hadrill, Thébert and McKay, to name but a few, have sought to classify house types and examine the structure of urban and rural society in the Roman Empire.<sup>8</sup> The majority of these studies, however, examine Roman domestic architecture in the western Empire, and very rarely incorporate the East into their discussions.<sup>9</sup> The eastern provinces have traditionally contributed only a meager base of comparative material for the study of domestic art and architecture in comparison to scholarship in the West. In the last two decades, however, increased scholarship on domestic art and architecture of the Roman East has begun to correct the geographical bias which exists between eastern and western scholarship. A new focus on the excavation and analysis of domestic structures is encouraging, and may result in a solid foundation of comparative material for analyzing houses in the Roman East, especially decorated ones.

In contrast to Roman Arabia, which has "gone almost entirely unnoticed in terms of building history,"<sup>10</sup> plans of Roman villas in various western

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<sup>8</sup> For work on typologies of the Roman rural villa and their social and economic functions see Percival 1976 and Smith 1997. For an examination of the Pompeian atrium house see Dwyer 1991. For middle and lower-class housing in Pompeii see Packer 1975. For Roman houses and social structure see Wallace-Hadrill 1988 and 1994. For Roman houses in Africa and the Near East see McKay 1975. For houses of the elite in Roman Africa see Thébert 1987.

<sup>9</sup> E.g. Percival 1976: 61-6 includes Roman Africa, specifically Tunisia, as the sole eastern representative of his geographical survey of Roman villas; see also Rossiter 1993 for his comments on the "geographically uneven" studies of Roman houses between east and west.

<sup>10</sup> Wright 1997: 374.

provinces of the Roman Empire have been recorded for some two hundred years.<sup>11</sup> Nevertheless, these western villas, although recorded, have in the past received relatively little analysis beyond their country of origin.<sup>12</sup> Only in the last decade has a comprehensive study of Roman villas in the western Empire been carried out in an effort to internationalize villa studies.<sup>13</sup> For example, Smith's recent work provides an exhaustive survey of Roman villa types in Spain, Portugal, Switzerland, Romania, Bulgaria, Hungary, Holland, Belgium Luxembourg, Austria, the former Yugoslavia, Britain, Germany and France.<sup>14</sup> His survey is successful in organizing an enormous amount of material and illuminating the great variety in Roman villa plans. In so doing he addresses the geographical diffusion of house plans by delineating those plans which seem widespread and those which seem confined to specific provinces.<sup>15</sup> Yet Smith's investigation of villas does not include the Roman East; ultimately this exclusion within such an extensive work serves as stark reminder of the disproportionate

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<sup>11</sup> Smith 1997: 3.

<sup>12</sup> *Ibid.*, xxvi.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*, 11-12. Seventy five percent of the eleven hundred plans reviewed by Smith come from Britain, German and France.

<sup>15</sup> On identical house types found in Romania and eastern France see Smith 1997: 282-3. On the spread of the row house type throughout Britain, Germany, France and Switzerland see Smith 1997: 46. With the exception of Spain, simple hall houses are found throughout Smith's survey (Smith 1997: 23). Peristyle house plans were recorded predominately in South-east Europe (although a common house type in the Roman East), as were many plans with "unusual combinations of elements familiar elsewhere" (Smith 1997: 283).

division in scholarship between the eastern and western provinces of the Empire.<sup>16</sup>

### The East

The work of Thébert and McKay, frequently cited in current scholarship,<sup>17</sup> has set a standard that may serve as a model for future studies on domestic architecture in the Roman East. McKay concentrates on house type, locality and the geographical transfer of building styles rather than on the social structure and cultural implications of Roman house design which are the focus of Thébert's work. Furthermore, studies such as these are being supplemented by excellent new material from individual archaeological sites. For example, the Swiss Liechtenstein Excavations at Ez-Zantur in Petra,<sup>18</sup> McKenzie's work on the architecture and urban development of Petra,<sup>19</sup> and Negev's<sup>20</sup> excavation of

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<sup>16</sup> See also Rossiter's 1989:101 criticism of Roman villa studies in which he states: "their regional types have tended either to exclude the eastern provinces altogether or else to offer only brief comment regarding the relative lack of evidence for villas in the Roman lands east of the Balkans."

<sup>17</sup> Thébert 1987: 319-409 focuses exclusively on urban domestic architecture of the ruling class in North Africa and provides a thorough examination of the elite's "sumptuous" houses as social products of Roman culture. McKay 1975: 210-37 provides a more geographically inclusive study discussing houses in Roman Africa as well as other eastern provinces.

<sup>18</sup> Kolb et al. 1993, 1997, 1998 for excavation site reports. For a thorough analysis of Ez-Zantur see Stucky 1996.

<sup>19</sup> McKenzie 1990.

<sup>20</sup> Negev 1988.

Mampsis have set an important standard for future studies on the houses of Roman Arabia.<sup>21</sup>

The growing number of houses under excavation in the Roman East has, not surprisingly, revealed a wide range of designs.<sup>22</sup> Often these houses reveal ground plans and renovations that incorporate several cultural occupations from Persian to Islamic, which in many cases render the task of isolating each phase a complex, and time consuming process. The scanty remains and the often daunting task of disentangling Roman and eastern (Greek, Egyptian, Nabataean etc.) influences on architecture may, to some degree, account for the lack of publications on domestic architecture in the Roman East.

In Roman Arabia, the cities of Gadara (Umm Qeis), Abila (Qweilbeh), Capitolias (Beit Ras), Gerasa (Jerash), Pellà (Tabaqat Fahl), and Philadelphia (Amman) possess rich archaeological remains from Hellenistic and Roman occupations.<sup>23</sup> Even by the time of Alexander the Great, the art and architecture of the East was defined by a hybrid of sophisticated eastern and Greek styles.<sup>24</sup> The grandeur that Roman rule contributed to these cities accentuated the existing Near Eastern tradition which combined indigenous artistic and architectural

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<sup>21</sup> Another example that comes to mind, although it pre-dates E125, is the thorough excavation and analysis of Tel Anafa in Northern Israel. Mainly a Hellenistic site, the period of Roman occupation (ending in the first-century A.D.) on the Tel is thoroughly treated by the excavators—even the scantiest domestic remains are phased and drawn. See Herbert 1994: 109-44.

<sup>22</sup> Wright 1997: 374.

<sup>23</sup> Parker 1997: 237.

<sup>24</sup> Colledge 1987: 138.

styles with those of other cultures.<sup>25</sup> The cities of the East were further embellished during Roman rule by the baths, roads and monumental arches of Imperial civic architecture.<sup>26</sup> Although the archaeological record in the East is rich with the remains of civic art and architecture from Imperial rule, the evidence for Romanization beyond the civic and public realm is thin.

Residential areas are not always visible, houses are often not left standing, and foundations can be covered by later buildings. Petra and Jerash in Jordan are major sites that in the last decade have witnessed serious efforts to locate ancient houses; or, in cases where houses are already known, these efforts have been directed at excavating and publishing the results.<sup>27</sup> At these and other sites throughout Roman Arabia and the greater Near East the excavation and preservation of domestic architecture is becoming increasingly significant for understanding the socio-cultural impact of Roman occupation and for illuminating the architectural record of ancient communities. Recent excavations

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<sup>25</sup> On Rome's impact on the architecture in the East see Kennedy 1997: 437. On the cultural hybrid styles in eastern art and architecture see Colledge 1997: *passim*. Even under Roman rule, eastern cities remained thriving urban centers while retaining a confident Hellenistic artistic and architectural tradition (Kennedy 1997: 437; Gleuk 1965: 119).

<sup>26</sup> Kennedy 1997: 437.

<sup>27</sup> Seigne 1992: 73-82 discusses the Hellenistic and Roman houses which lie under later structures at Jerash. Because there are no houses visible today at Jerash that date earlier than the fifth century, houses from Pre-Roman and Roman occupation were thought (until recently) not to exist. Cf. McKenzie 1990: 105 who discusses the spotlight held by the magnificent tomb façades and other spectacular monumental architecture at Petra, obscuring the domestic structures as excavation objectives. McKenzie states that "the evidence of domestic occupation is not immediately obvious, it is often assumed that there was not any." Allara 1987: 67 makes the point that outside of the information found in excavation reports, the houses at Dura Europos "have never been treated as a separate study." Allara calculates that for the excavated houses at Dura, only twenty percent have been carefully documented, only thirty percent have a brief description with a simplified plan, and for fifty percent only fragmentary data remains (69).

have revealed house plans and decorations with Roman influences, for example: in western subject matter on the walls of private houses at Dura Europos,<sup>28</sup> and in the axial design of peristyle houses at Antioch in Syria.<sup>29</sup> In Jordan excavation at Jerash has revealed atrium-type houses,<sup>30</sup> and at Humayma the wall frescoes indicate a strong Roman influence.

The Roman presence at Humayma is most obvious in the structures of the Roman bathhouse and the Roman fort. These structures conform to Roman standards of measurement, building technique, and the technology which distinguishes Roman military structures throughout the Empire.<sup>31</sup> In shifting our gaze away from these two beacons of Romanness<sup>32</sup> what can be said about E125? Does it conform to a typical or standard Roman house type found in the Near East? Does such a standard exist? When examining the Imperial architecture of the East one must keep in mind the "diversity of traditions within the East itself."<sup>33</sup> Yegül recommends viewing the architecture of the Roman East as an "amalgam whose components have fused into a whole which is the product of its

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<sup>28</sup> Perkins 1973: 67.

<sup>29</sup> McKay 1975: 220.

<sup>30</sup> Seigne 1992: 76.

<sup>31</sup> See Reeves 1996 for her work on Roman bathhouses. On Roman forts see Oleson 1999b: 4-16 and Johnson 1983: 27-44, 291.

<sup>32</sup> Oleson 1999b: 7 describes the Roman fort at Humayma as "an instructive image of Roman urbanism and imperial administration . . . a beacon of Romanness in the desert seemingly empty but constantly scanned by the inquisitive eyes of its inhabitants."

<sup>33</sup> Yegül 1991: 345 notes the point made by Ward-Perkins (in Yegül) in his statement that to treat "the art or architecture of the empire as the product of two contrasting elements—whether it be Rome and the Orient, the Eastern and Western Empires . . . Romanism and Hellenism . . . is to invite trouble."

particular time and place."<sup>34</sup> I have based the following analysis of E125 on this approach suggested by Yegül.

The remainder of this chapter explores the construction and plan of E125. I shall look first at the different cultural influences that can be detected in the construction of E125. Following this I will examine contemporary structures in and around Humayma which share features similar to those of E125 as well as those further afield in the Roman East. It is not my intent to provide a definitive investigation into any of the social or theoretical implications present in the design of E125, as the evidence at this point is meager and better left for future excavations and interpretation. I will, however, illustrate E125 as a valuable addition to the developing context of domestic architecture in the Roman Near East.

## II. Materials, Time and Place

Now we shall proceed aright herein if first we observe in what regions or latitudes of the world, our work is placed. For the style of building ought manifestly to be different in Egypt and Spain, in Pontus and Rome, and in countries and regions of various characters. For in one part the earth is oppressed by the sun in its course; in another part, the earth is far removed from it; in another, it is affected by it at a moderate distance. Therefore since, in the sun's course through the inclination of the zodiac, the relation of the heavens to the earth is arranged by nature with varying effects, it appears that in like manner the arrangement of buildings should be guided by the kind of locality and the changes of climate. .  
(Vitruvius VI. I, 1)

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<sup>34</sup> Yegül 1991: 346.

Vitruvius' observations on the relationship between locality, climate and architecture are substantiated in the architectural remains scattered throughout the Roman Empire.<sup>35</sup> From Roman Britain to Roman Africa houses have been shown to conform to local climate and building traditions, while incorporating some element of Romaness in their plan, construction and, or, decoration.<sup>36</sup>

In the previous chapters I have argued that the style, motifs, techniques and pigments employed in the frescoes from E125 fit the repertoire of Graeco-Roman painting with a distinctly Roman painting style. In Chapter One I presented two points of contact that E125 may have had with the Roman environment at Humayma: a possible association between E125 and a military *vicus*, which may or may not have existed, and a possible relationship with the mercantile traffic at Humayma—both of which may have influenced the choice of fresco decoration for E125. An examination of the socio-cultural, geographical and chronological contexts of E125, suggests that the frescoes from this structure are a product of what Haverfield described as “the heavy inevitable atmosphere of the Roman material civilization.”<sup>37</sup> Nearly a century after Haverfield, scholars are still trying to understand the process of Romanization in the East and also

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<sup>35</sup> McKay 1975 provides details of Roman houses in Africa and the Near East which were designed with the demands of climate in mind. Thébert 1987: 326-7 comments on vernacular architecture's reliance on locale and climate. For examples of building methods that were dependent on climate and locality see Smith 1997.

<sup>36</sup> Romanizing elements varied from the very subtle decorative embellishment to luxurious architectural detail such as multiple bathhouses on the premises (see Appendix. A for the Roman mansion at 'En Ya'el). Even in Britain “the appearance of even a hut with a rectangular ground plan may reasonably be taken as indicating a degree of Roman influence” (Percival 1976: 38).

<sup>37</sup> Haverfield 1912: 46.

how to measure “the degree to which Rome exerted influence upon her culturally and ethnically polyglot empire. . .”<sup>38</sup>

Since the frescoes from E125 reflect the circumstances of time and place and are a result of the permeation of Roman material culture, can the same be said about the ground plan or the building materials used for E125? How does E125 compare to other houses in the Roman Near East? Finally, how does E125 fit into the existing context of Near Eastern domestic structures? By comparing building materials, techniques and plans for E125 and other Roman houses in the Near East, I hope to answer these questions and show the range of decorated house types that share similarities with E125.

### Materials and Construction

E125 is constructed on cobble foundations. Arch springers, arches, doorjambs, and roofing slabs are all made from stone, yet the walls are mud-brick. In my search for parallels for E125 I found only one tenuous example of Roman mud-brick houses in Arabia—a mud-brick house/church in Roman Aqaba from the fourth-century A.D. —accentuating the need for a comprehensive catalogue of houses in the Roman Near East.<sup>39</sup> According to McKay, however, combined mud-brick and stone construction is typical of house construction in the East.<sup>40</sup> Throughout the Roman provinces houses were constructed “with builders improvising on the possibilities inherent in the locale:

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<sup>38</sup> Dodge 1990: 108. For an overview on the complex issue of “Romanization” see Woolf 1988, Grahame 1998, and Millett 1990.

<sup>39</sup> See Appendix A.

<sup>40</sup> McKay 1975: 224-5.

climate, availability of building materials."<sup>41</sup> The rocky landscape around Humayma makes it easy for us to imagine the builder gathering stones from Wadi el-Gharid on the eastern perimeter of Humayma or along the hillsides west of the settlement to lay the multicourse cobble foundations of E125.<sup>42</sup> The stone-cut blocks used for the arch springers, arches, floor, doorjambs and roofing slabs would most likely have come from several large quarrying sites west of the settlement.<sup>43</sup> The same wadi bed east of the site could have supplied the clay and sand used to make mud-brick in its raw form: the bricks made for the walls of E125 were made of clay mixed with sand and possibly straw or other organic materials.<sup>44</sup> The uniform shape and size (c. 0.23 by 0.33 by 0.30 m) of the E125 mud-bricks indicate a mould was used in forming the bricks.<sup>45</sup> Building in mud-brick seems a logical and economical option for the inhabitants at Humayma. The capacity for mud-brick to insulate against heat in the day and cold at night, as well as its low manufacturing cost, raises the question of why so little mud-brick construction has been identified in the archaeological record at Humayma.

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<sup>41</sup> Thébert 1987: 326.

<sup>42</sup> Even today the hillsides west of Humayma are blanketed with loose stones used by local Bedouin to build enclosures for their livestock.

<sup>43</sup> See Graf 1992:69 for the main quarrying site at Humayma.

<sup>44</sup> For descriptions and history of mud-brick construction in arid lands see Reich 1992 and Feilden 1982.

<sup>45</sup> Reich 1992 : 6 contains an Egyptian relief which shows mud-brick being made with a mould made from wooden boards to achieve bricks of uniform shape and size. The process of manufacturing mud-brick starts with pressing the prepared clay into the wooden moulds then removing the bricks from the moulds and setting them in the sun to dry.

In addition to E125, the only mud-brick building identified at Humayma was found beneath the remains of a Byzantine church and a later Islamic structure in area F102 (see Fig. 3).<sup>46</sup> The absence of additional mud-brick buildings at Humayma is perplexing, given the accessibility of raw materials and the widespread use of mud-brick as a construction material for domestic structures throughout the eastern provinces.<sup>47</sup> At the same time, the lack of mud-brick houses in the archaeological record at Humayma is understandable due to the difficulty of recognizing it in the field. The mud-brick from E125 is in extremely poor condition, and it is highly likely that its survival until now is due largely to the fact that the walls had been plastered in antiquity—the plaster acting as a protective guard against the elements and slowing the inevitable deterioration of the walls.<sup>48</sup> Reich explains that due to the highly friable nature of mud-brick, deterioration occurs at a rapid rate, and thus mud-brick walls are rarely found preserved to any height.<sup>49</sup> It is difficult to spot mud-brick at Humayma, as the soil is largely uniform in color and texture. Therefore, after the collapse of a structure, its mud-brick walls would have deteriorated and disappeared, leaving little trace in the soil of their presence. When stone is used in construction, as in E125, the individual blocks or slabs were usually salvaged from the deteriorating or collapsed building by contemporary or later inhabitants

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<sup>46</sup> Oleson et al. 1993: 141.

<sup>47</sup> Dodge 1990: 115.

<sup>48</sup> On the protective qualities of plaster on mud-brick walls as a safeguard against erosion from the elements and human contact see Reich 1992: 6 and Feilden 1982: 73.

<sup>49</sup> Reich 1992: 7.

of the area. The remaining mud-brick was left without support, which would have accelerated its deterioration and disappearance.

The elusiveness of mud-brick houses in the archaeological record at Humayma may also be explained by the Nabataean preference for building predominantly in stone.<sup>50</sup> At Humayma, and other sites in Arabia, it seems that Nabataeans first settled in tents and only later constructed houses in stone. Diodorus Siculus and Strabo confirm this building trend,<sup>51</sup> and the archaeological record in Arabia supports the Nabataean transition from tent to stone houses.<sup>52</sup> Evidence for this trend was found at Humayma in an early first-century A.D. Nabataean campground southwest of the settlement in area C124 (see Fig. 3) and in the late second-century A.D. Nabataean stone house E122 (Fig. 11).<sup>53</sup>

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<sup>50</sup> Negev 1980 describes "the unexplained Nabataean reluctance to use mud or burnt bricks" (8) and the preference for constructing houses in stone: "the walls of the Nabataean houses were made 60 to 80 cm thick and in three layers. The outside wall presented a very smooth face made of nicely fitted ashlar laid dry. This shut out the winds, hot or cold, and the moisture, too, for dew is very common throughout the year. Walls facing the courts were treated in the same way. The walls on the interior of the rooms were made of hammer-dressed blocks of stone laid in regular courses and filled in with smaller stones between the courses. The face of this wall was thickly covered by several coats of mud plaster, sealed by several layers of finer lime plaster, and finally whitewashed" (5).

<sup>51</sup> This transition is supported by the textual evidence from Diodorus Siculus (19, 94, 2-19, 1), who, writing in 312 B.C., describes the Nabataeans as Nomadic tent dwellers. A later description given by Strabo (16, 4, 26), writing around 24 B.C., tells of costly Nabataean stone houses with painted and moulded works.

<sup>52</sup> While excavating beneath the remains of Nabataean and late Roman stone houses on Ez Zantur Stucky uncovered light greenish layers of firm soil. "They contained not only numerous fragments of pottery and lamps but also quantities bone splinters—all in all clear indications of intensive dwelling activities. Furthermore these layers had no definable outer limit—neither traces of stone nor mud brick walls were found—but ran out lenticularly to the edge of the terrace" (Stucky 1995: 197). Stucky identified these layers as habitations layers "which represent the trampled deposits of tent floors" (197).

<sup>53</sup> Nabataean campsites have been located at sites in Jordan where there is later evidence for more permanent Nabataean housing. This is the case also for area C124 at

Both Vitruvius and Pliny expound upon the techniques of making mud-brick and the various types of baked brick. Building in this medium was not unfamiliar to the Romans,<sup>54</sup> but from pre-Roman times sun-dried mud-brick construction was deeply entrenched in building traditions throughout the Near East. Kennedy describes the popular architecture of the Roman East as favoring the traditional oriental mud-brick form with stone arches and supports similar to that found in E125.<sup>55</sup> Likewise, McKay describes the mud-brick and stone construction of Roman houses in Ptolemais from the first century A.D., as characteristic throughout the Roman East and North Africa.<sup>56</sup> The exception to this building tradition is found in Arabia with the Nabataean propensity for stone architecture discussed above.

To date, there is no evidence of mud-brick construction at Humayma which pre-dates the construction of the Roman fort. We know that troops transferred from Egypt garrisoned Arabia after its annexation in A. D. 106, and that ceramics date the construction of E125 slightly after that of the fort at Humayma. Given the popularity of mud-brick construction in Egypt, this coincidence allows us to conjecture a possible Egyptian inspiration for the mud-brick construction of E125<sup>57</sup> —finding its source in either a soldier or camp

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Humayma, identified as a Nabataean campground (Oleson et al. 1999a: 2 ). See also Negev 1986 for the Nabataean campground at Oboda. For evidence of a Nabataean tent site underneath a later Nabataean/Roman house at Ez-Zantur in Petra see Parr 1990 and Stucky et al. 1996.

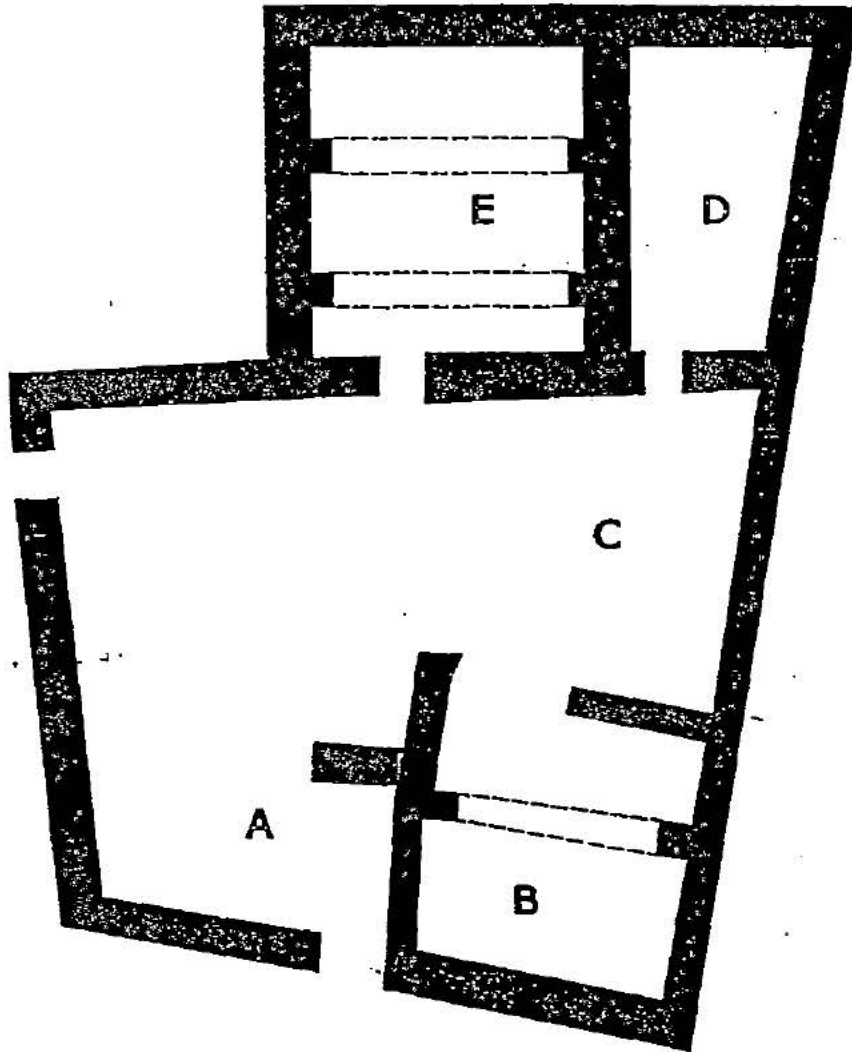
<sup>54</sup> Vitruvius *de Arch.*, 2. 8. 18-19; Pliny *NH.*, 35. 169-73.

<sup>55</sup> Kennedy 1997: 437.

<sup>56</sup> McKay 1975: 226-7.

<sup>57</sup> Reeves in Oleson 1999a.

Figure 11: House E122 at Humayma



E122

NABATAEAN/ROMAN AND UmayyAD HOUSE

HUMAYMA 1996

0 1 2 3 4 5 m



SEAN FRASER



follower. Such a cultural source would also explain the several Egyptianizing artifacts found throughout E125.<sup>58</sup>

### Parallels

The only other published frescoed mud-brick house of the Roman/Byzantine period that my survey of Arabia turned up is located in Aqaba (ancient Aila/ Ayla).<sup>59</sup> A tenuous parallel, this structure post-dates E125 and has been identified as a house or Christian basilica of the fourth century A.D. The painted plaster appears to have been applied in the *fresco secco* technique and possibly depicts draped figures; little else is known about this structure.

Although the evidence from this structure is slight, it does confirm the existence of painted mud-brick architecture in Roman Arabia—suggesting, perhaps, a building tradition now documented by only a few surviving examples such as E125.

The remaining comparative material for E125 is comprised of stone built houses decorated with frescoes and showing a variety of floor plans. They include examples of decorated Roman period houses from sites in modern Jordan, Israel, and Syria, which reveal a blending of eastern and western influences in their construction, plans and decorations. The following observations are meant to shed light on the domestic architecture in Roman Arabia and to provide an Arabian context of decorated houses within which E125 can be placed.

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<sup>58</sup> See Chapter One for Egyptianizing artifacts uncovered in E125.

<sup>59</sup> See Appendix A.

## Petra

Houses with frescoed interiors in Petra date from the first century A.D. to the fourth century A. D. Decorated rock-cut houses are located at Beidha in the Siq el Barid, at the base of el Hubtah opposite the Main Theatre, in Wadi Siyyagh, and a block built house (EZ IV) has recently been identified at Ez-Zantur (Figs. 12, 13 and 14 ).<sup>60</sup> All four examples contain ceiling or wall frescoes. The first three of these houses are tooled out of the rock faces of the jebels that make up Petra. The cave houses at Petra are identified and differentiated from the numerous rock-cut tombs by the absence of loculi, graves, or ornamental architectural façades which are the distinctive trademarks of the famous tombs.<sup>61</sup>

The Painted house at Beihda (Fig. 12) is a *biclinium* with a large square recess in the back wall. The doorway is approached by steps, and opens into a large chamber with a bedrock floor. The large opening to the front room has an interesting threshold with rectangular holes possibly for a frame, screen or grill. The back wall of the chamber is decorated in stucco painted red and orange in a style imitating stone masonry. A large square recess in the back wall contains a segmentally vaulted ceiling which is frescoed in a highly intricate pattern of birds, flowers and vine medallions encircling the painted image of mythical figures.<sup>62</sup>

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<sup>60</sup> See Appendix A for details of the decoration from these houses.

<sup>61</sup> McKenzie 1990: 106.

<sup>62</sup> This information is taken from McKenzie 1990: 152 .

The Painted House opposite the Main Theatre (Fig. 13) has six rooms communicating with a central hall. According to early excavators of Petra, "the central door to Room B had an inserted lintel with a window above," and the vaulted ceiling in Room F contained remains of red and black painted plaster.<sup>63</sup> Little else is written about this house beyond the Horsfields' preliminary observations made in the 1930s.

A house from Wadi Siyyagh (no plan available) completes the set of painted rock-cut houses. "The open front is seen in section with rooms spaced at irregular intervals, like a cave complex, perhaps reusing earlier chambers. Among the debris was a slab of white crystalline limestone, the remnant of a floor paving."<sup>64</sup> This house also contained cisterns, a *triclinium* and painted plaster from at least two other rooms. Zayadine describes painted architectural façades from a cave house in Wadi Siyyagh, but it is not made clear whether or not they came from the house described above.<sup>65</sup> Unfortunately there is little additional information available on this house. The image that emerges of the decorated rock-cut houses at Petra is one of spectacularly painted and stuccoed walls and ceilings in rooms with crystalline limestone floors, all expertly carved into the mountainsides. The plans are simple and allow for the circulation of light and air into the back and, or, side rooms. McKenzie, who lived in a rock-cut

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<sup>63</sup> Horsfield in McKenzie 1990: 107-8.

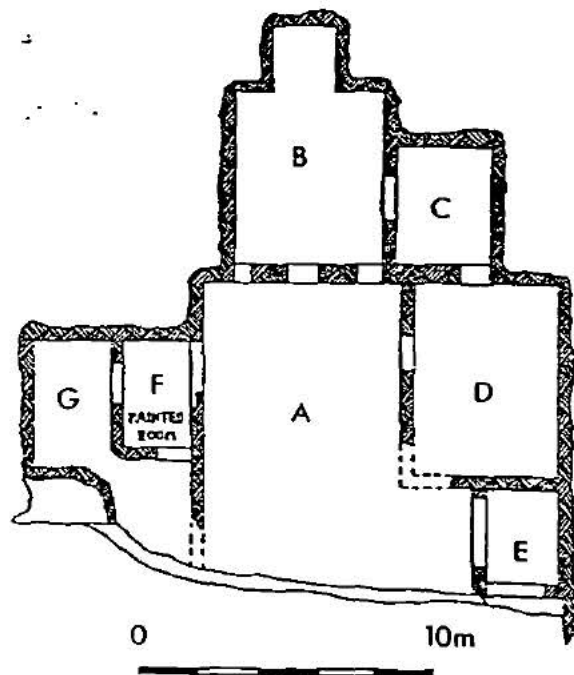
<sup>64</sup> *ibid.*, 1990: 107.

<sup>65</sup> Zayadine 1987

Figure 13:  
Rock-cut house opposite to the Main Theatre at Petra



a. Rock-cut house opposite the Main Theatre



c. Rock-cut house opposite the Main Theatre: plan

(McKenzie 1990: Pl. 172)

house at Petra for five months, attests to their suitability as houses—remaining very warm in the winter and cool in the summer.<sup>66</sup>

House EZ IV from Ez-Zantur at Petra (Fig. 14) is a free-standing, terraced structure constructed in ashlar masonry. Built in the first century A.D. and destroyed in the second century A.D., this house represented a combination of local Nabataean building traditions with western influences in the decoration and in some of the architectural detail. Light and air penetrated through peristyle courts which displayed Nabataean-Corinthian capitals, and through partially or completely open roofs in rooms near the center of the house.<sup>67</sup> Flagstone and mosaic floors added to the luxury of this house as did the elaborate Graeco-Roman wall paintings which adorned the hallways and public rooms.<sup>68</sup>

### Mamphis

The Decorated house XII at Mamphis (second to third centuries A. D.) is constructed with outer walls made of ashlar and interior walls of squared stone blocks (Fig. 15).<sup>69</sup> This Late Nabataean house is typical of dwellings at Mamphis which acted as independent defensible units. This building contained a large stable (no. 431) and a large, irregularly shaped courtyard (no. 400) around which are grouped the eastern, northern and southern wings of the house. An inner courtyard (no. 405) paved with stone slabs and decorated with painted wall

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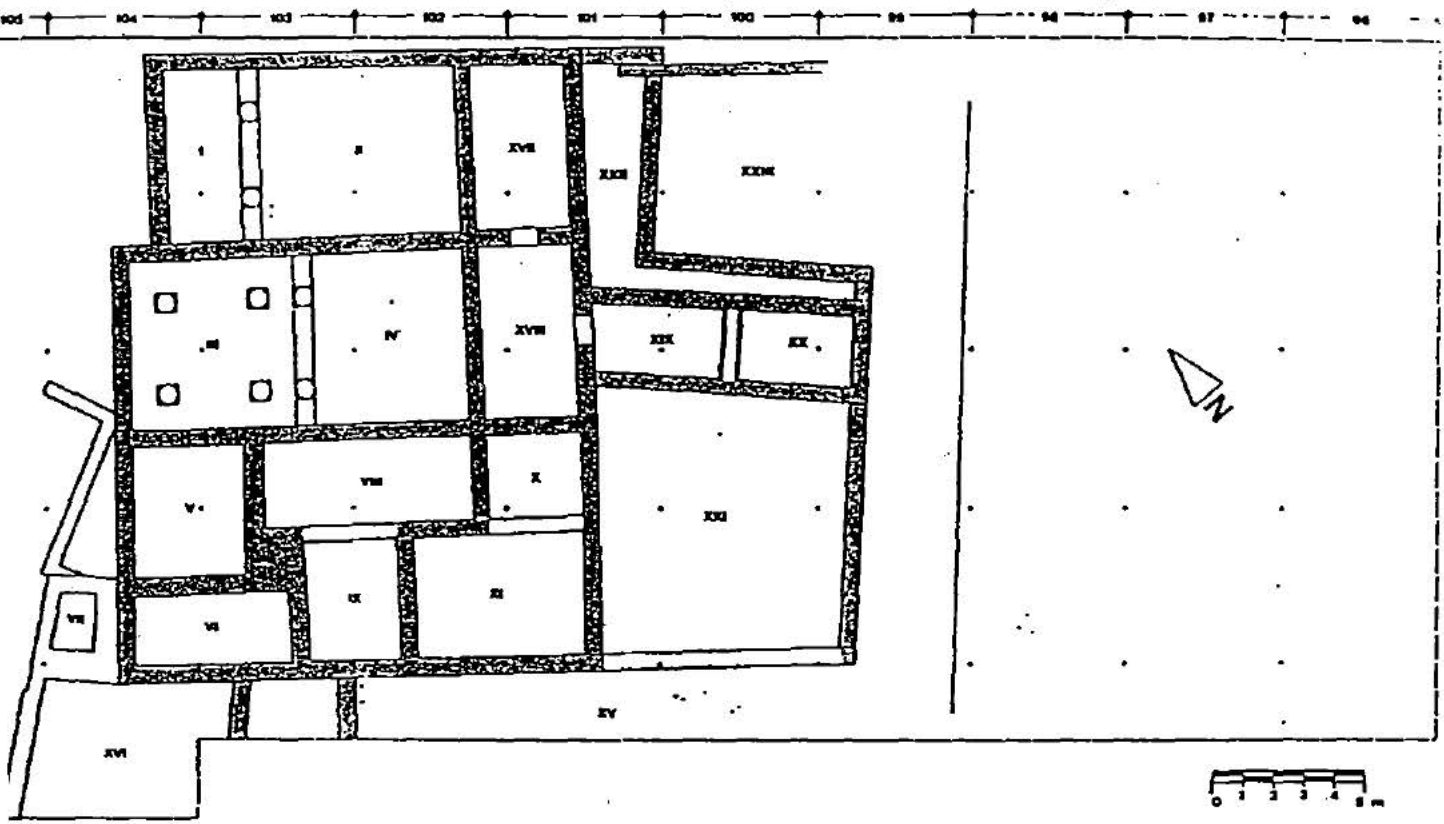
<sup>66</sup> McKenzie 1990: 107.

<sup>67</sup> Stucky 1995: 195.

<sup>68</sup> See Appendix A for details of the painted decoration.

<sup>69</sup> All references made to house XII are from Negev 1988: 111-62.

Figure 14:  
House EZ IV at Ez-Zantur, Petra



Stucky (1993: 419)

plaster provides light and air to the residential rooms to the north. In addition, fresco was found on the walls of rooms 406 and 411.<sup>70</sup> Each of these rooms is spanned by three arches which spring from the western and eastern walls with painted plaster applied to the walls, arch springers and voussoirs—much in the same way as the fresco from Room A in E125. The frescoes are of a distinct Graeco-Roman style which “fit into the framework of local traditions of the art of the Eastern provinces in the 2<sup>nd</sup>-3<sup>rd</sup> centuries.”<sup>71</sup>

### Dura Europos

Perkins describes the private houses at Dura as characterized by a single basic plan with (usually) a single entrance accessible from the street via “a small vestibule or corridor from which a right-angle turn leads to an open court which is the nucleus of the house”<sup>72</sup> (see Fig. 16). This describes essentially a Parthian plan which followed the tradition of Mesopotamian architecture and continued to be used at Dura throughout the city’s history.<sup>73</sup> Allara’s recent study, however, has reexamined the unpublished reports on the houses at Dura from the Roman period (165-256 A.D.).<sup>74</sup> Her results identified four types of houses: the courtyard house flanked on all sides by rooms, courtyards surrounded on

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<sup>70</sup> See Appendix A for more detail of the fresco decoration.

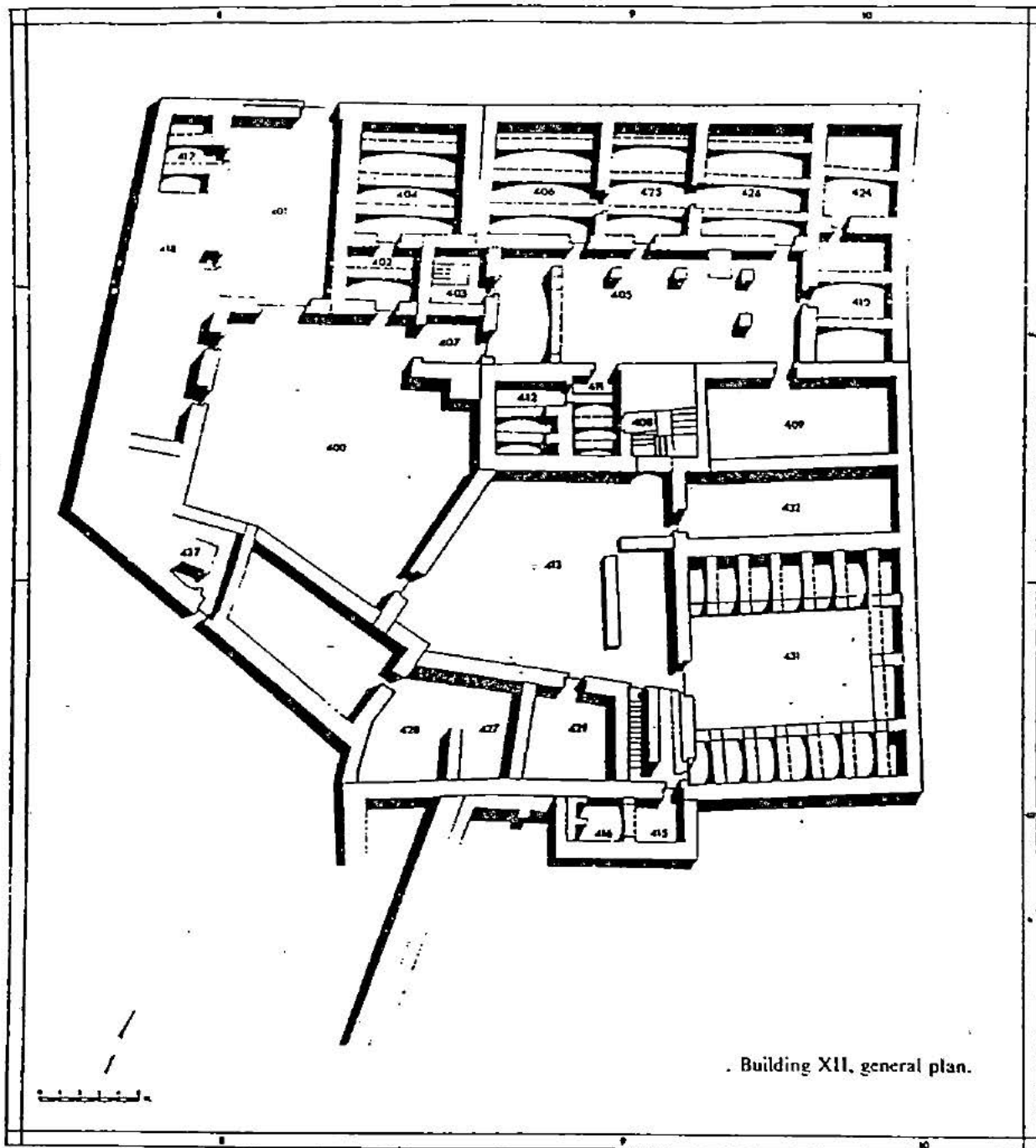
<sup>71</sup> Goodman in Negev 1988: 162.

<sup>72</sup> Perkins 1973: 22. Cf. Allara 1987.

<sup>73</sup> Perkins 1973: 22.

<sup>74</sup> Allara 1987.

Figure 15: House XII at Mampsis



Negev (1988: 113)

three sides by rooms, court yards surrounded on two sides by rooms, and courtyard houses with rooms only on one side. Her studies focused on the relationship between the surface area and economic status of the inhabitants, in which frescoed walls counted as “structural valuables” and were assigned to the fully flanked courtyard type.<sup>75</sup> Palaces and palatial houses also fell into this category. The courtyards for these houses provided light and air to the rooms which directly access them. These were living and reception rooms containing, among other luxury items, painted frescoes.<sup>76</sup> Allara’s reassessment does not seem to deviate very significantly, in terms of house plan, from the “Ideal” house type outlined by Perkins.

#### ‘En Ya’el

Although not fully excavated, the decorated Roman mansion from ‘En Ya’el (see Fig. 17), included a highly decorated *triclinium* with figural mosaics and frescoed walls painted in geometrical designs.<sup>77</sup> This building dates to the late second and early third centuries A. D. and incorporates two bathhouses, one of which is decorated with frescoes. Even though incomplete the plan seems to follow a more western design in comparison with the houses discussed above, with a Roman influence in the alignment of vestibule and *triclinium*. Further excavation is necessary in order to recover the full plan of ‘En Ya’el.

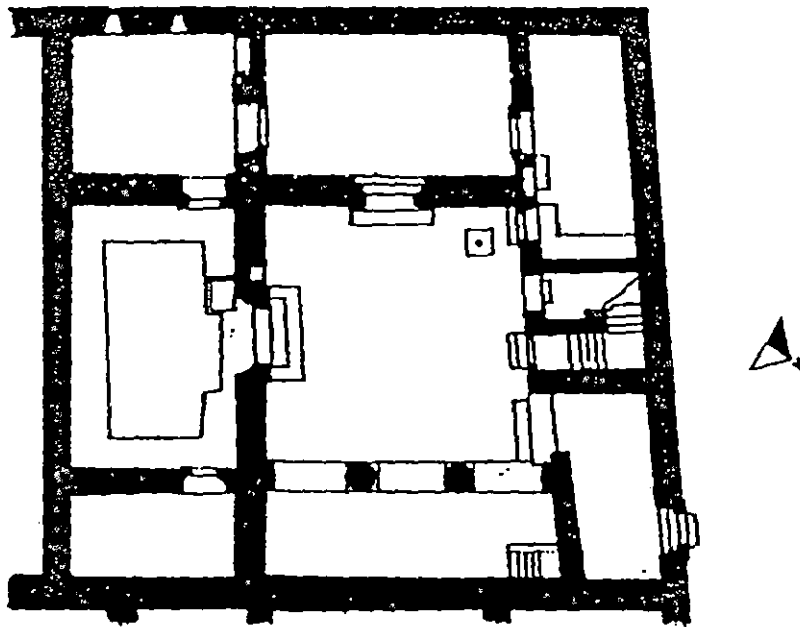
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<sup>75</sup> Allara 1987: 72.. For detail of published frescoes from the houses at DuraEuropos see Appendix A.

<sup>76</sup> Allara 1987: 75.

<sup>77</sup> See Appendix A for details.

Figure 16:  
"Ideal" House Type at Dura Europos



0 5 10 m

« Ideal » type of house of Dura.

Allara (1987: 69)

Figure 17: Mansion at 'En Ya'el  
House plan with vestibule and *triclinium*

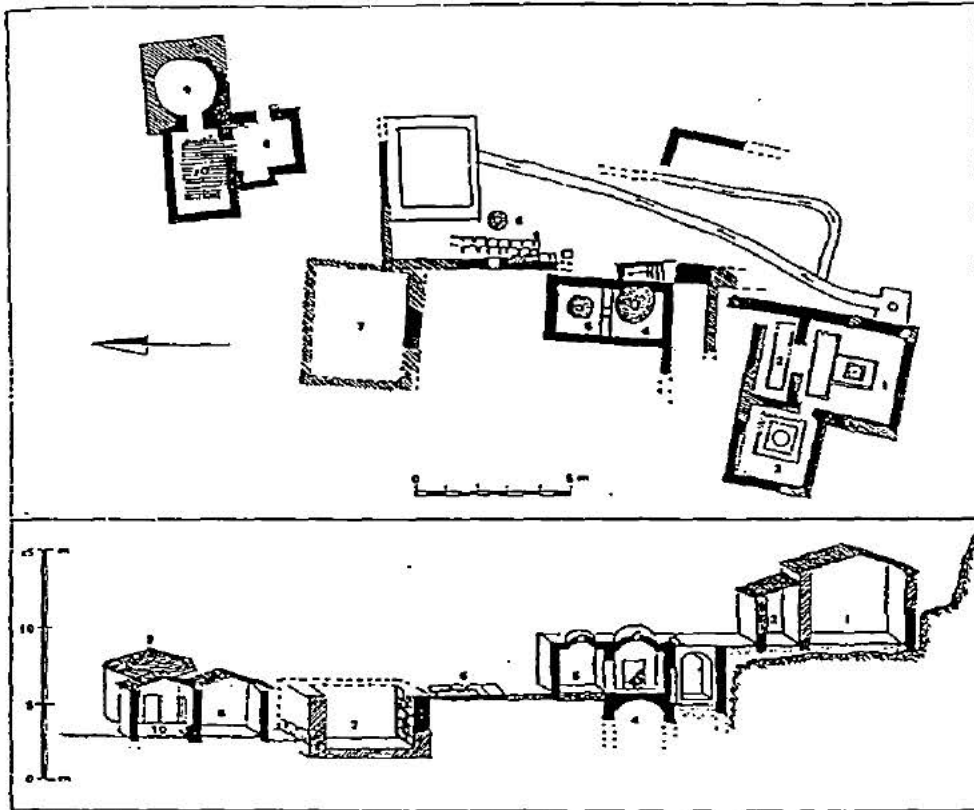


Fig. 48. 'En Ya'el, Roman mansion, plan and section

Edelstein (1988/89: 55)

Figure 18:  
House with peristyle at Sepphoris

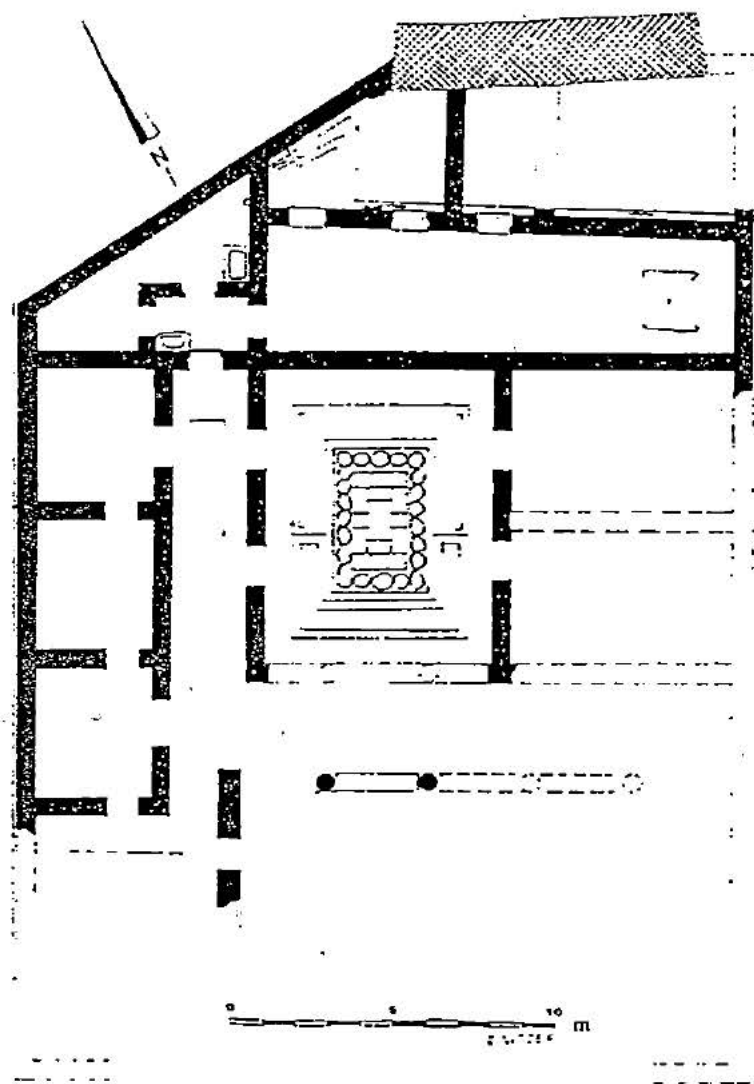


Fig. 146. Šipponi. Plan of mansion

170

Meyers et al. (1988/89: 170)

## Sepphoris

A highly decorated mansion dated to the mid-third century A.D. at Sepphoris contains a room labeled a *triclinium* by the excavators, peristyle courtyard, hallways and porticoes all paved in rich mosaics. To the west of the *triclinium*, a paved hallway opens into a series of rooms, which were decorated in wall frescoes (see Fig.18).<sup>78</sup> The presence of a peristyle court to the south of the *triclinium* indicates a Hellenistic element to this otherwise western plan. Peristyle courts are found in Roman houses throughout the East: they offered greater circulation of light and air than did the atria of Roman houses in the west. Unlike traditional Near Eastern houses, peristyles did not act as the nucleus of the house; nevertheless they were an essential aspect of a prosperous Roman home.<sup>79</sup>

## E125

It must be born in mind at all times that the excavation of E125 is a work in progress, as is much of the parallel material cited above. This small sample of comparative material was selected on a geographical, chronological and decorative basis. The examples are all frescoed houses in Arabia, and are included here to provide an example of the range of house plans found in Arabia. Even with only a portion of the house plan of E125 uncovered (Fig. 2), we can still draw some tenuous conclusions from the houses discussed above,

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<sup>78</sup> See Appendix A for details

<sup>79</sup> Thébert 1987: 357.

despite the paucity of scholarship concerning them. With these limitations in mind, certain observations can be made.

Excavation of E125 has revealed areas tentatively identified as courtyards (area F, and the area off of Room D). The presence of two courtyards would distinguish the plan of E125 from the typical Near Eastern house plan of a single central courtyard surrounded by rooms, such as the adjacent, undecorated House E122 at Humayma and the houses found at Dura Europos. A variation of the single, central courtyard is also found in the rock-cut house opposite Petra's Main Theatre. As a double-courtyard house plan, E125 finds parallels in the plan of Ez-Zantur and Mampsis. Of the rooms opening off of the two courtyards restored for E125, frescoed Room A, communicating with courtyard F, is constructed with stone arches—similar to the decorated rooms opening off of Courtyard 405 of House XII at Mampsis. Although the plan of the house at Sepphoris shows a courtyard, it is a peristyle courtyard which is not articulated directly with the rooms of the house but instead communicates with hallways. Unlike the more affluent houses at Ez-Zantur and Sepphoris, there is no sign as yet in E125 of the peristyle courts and porticoes which typify a Hellenized and western influence on houses of the Roman East.

Even though excavation is incomplete, the plan and decoration of E125 suggests a combination of eastern and western influences. The most obvious western influence found in the Graeco-Roman frescoes is juxtaposed with an eastern building design. The house plan, even in its incomplete stage, hints at a similar design as the houses at Ez-Zantur and Mampsis (although on a smaller scale).

### III. Conclusion

This chapter has outlined the geographical bias which permeates scholarship on houses in the Roman Empire. In the East, the long tradition of blending and borrowing of art and architecture has created a situation where indicators of Roman material culture are often indistinct in the archaeological record.<sup>80</sup> Having established in the previous chapters that the frescoes from E125 belong within a Graeco-Roman repertoire, I have argued in these pages that the building materials and plan of E125 reflect an eastern influence. Finally, I have examined plans from the few published examples available of frescoed houses in Roman Arabia on the premise that they might shed light (however dim) on what type of house plan we may expect for E125 in future excavations.

It was the overall aim of this chapter to place E125 within an eastern context of domestic architecture. The near absence of mud-brick construction in the comparative material gathered for the purposes of this thesis, accentuates the necessity of documenting and analyzing E125. Often entirely neglected as a subject for architectural research,<sup>81</sup> mud-brick structures like E125 provide valuable information for our understanding of domestic architecture in the Roman East. Unfortunately, as is too often the case in archaeology, time, money and political factors dictate excavation prerogatives. The endurance and telling wall lines of stone construction, to the detriment of mud-brick, are an enticing lure to the temporal and monetary constraints of archaeology. As a decorated

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<sup>80</sup> Colledge 1987: *passim*.

<sup>81</sup> Reich 1992: 5.

mud-brick house, E125 is important for illuminating the architectural traditions at Humayma, and plays a significant role in filling a void in the archaeological record of domestic architecture in Roman Arabia.

## Chapter 4

### Conclusions

Bowersock describes the Hisma desert where Humayma is located as almost otherworldly in its harsh and barren landscape.

... the Hisma landscape looks as if it belongs to another planet. Bleak and barren, the dried mud flats and sand stretch out into the distance punctuated by craggy peaks of sandstone. Uninviting as it is, this country has to be traversed to gain access to the Gulf of 'Aqaba and the sea route to the Indian Ocean. In antiquity, as in the present, the route through the Hisma to and from 'Aqaba was infinitely preferable to a passage along the depression of the Wadi 'Araba which, though convenient, was unendurably hot."<sup>1</sup>

Even in this inhospitable environment the settlement of Humayma was continually occupied for eight hundred years from the first century B. C. until the seventh century A. D. Humayma was originally a Nabataean agricultural settlement and a caravan stop on the trade route from the Red Sea to Petra. Following Trajan's annexation of the Nabataean Kingdom in A.D. 106, Humayma became an important military post for the Romans on the *Via Nova Traiana* that linked Bostra in the north to the Red Sea in the south. During its Roman period (mid-second century, through the fourth century A.D.), Humayma continued to serve both as a stop for the caravan trade and as a Roman military settlement. In this period the community was composed of indigenous and foreign farmers, tradesmen, merchants and soldiers.

Evidence for a Roman presence at Humayma following Arabia's annexation is found in the remains of a Roman military fort and bathhouse constructed on the fringe of the settlement. Shortly after the construction of these two military structures (in the mid- second century A. D.), a mud-brick house (House E125) was built outside the

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<sup>1</sup> Bowersock 1983: 8.

Roman fort's south gate, en route to the bathhouse. Since 1996, the excavation of House E125 has revealed Roman influence in the form of wall paintings applied in the true fresco technique. The decoration consists of colorful motifs common in Graeco-Roman art and a painting style consistent with contemporary trends in the wall paintings of Roman Italy of the late second and early third centuries A. D.

The purpose of this thesis has been to explore the style, motifs, and technique of the fresco decoration in House E125 with the aim of providing a better understanding of this painted house within its historical, chronological and socio-cultural context. In order to do this, I collected comparative information on frescoed sites throughout the Near East and examined frescoed houses from elsewhere in the Empire. In addition, I examined Roman literary accounts of art, architecture and military communities in the Empire. Finally, as part of my analysis of House E125 and its decoration, I incorporated the relevant information from secondary works into my research. The result of this research forms the content of Chapters One through Three. The outcome of my search of Near Eastern sites where frescoes have been documented is set out in Appendix A. The examples in Appendix A share similarities with the E125 frescoes and give a general idea of the range and styles of Near Eastern fresco decoration. The meagre information available in the Near East on houses decorated with frescoes made it necessary to expand my search to include a range of structures from a broad geographical and chronological base. A second appendix (Appendix B) contains measurements and descriptive analysis of all the fresco fragments uncovered in House E125 during the 1996 and 1998 excavation seasons.

Chapter One provided a brief overview of the state of current scholarship on Roman painting and an introduction to the site and history of Humayma. A description of the architectural and decorative phases of House E125 was also given here.

Suggestions for how the house may have functioned in the community were explored through an examination of the house's location in the settlement and by analysis of the artifacts uncovered from inside the house. The results of this investigation have shown that House E125 was in a prime location to serve a commercial/ domestic purpose for the Roman garrison or those travellers and traders who passed through Humayma. This chapter, however, raised more questions than it provided answers concerning the identity of the inhabitants and the purpose and function of E125. When the fresco decoration is viewed together with the other artifactual and architectural evidence from the house, a number of possible scenarios unfold involving the cultural identity of artists, builders, inhabitants and other people who may have frequented House E125. Of course further excavation of E125 is needed before we can hope to make any conclusions relating to the house's purpose or function, and the identity of its inhabitants. In the meantime, I believe the suggestions I have made concerning these issues are sound—given the limited evidence available at this stage of E125's excavation.

Chapter Two sought to explore the possible function and purpose of the E125 frescoes through a detailed description and analysis of the fresco fragments excavated from Rooms A, B, and C. An analysis of the motifs, pigments and techniques of fresco application revealed that the frescoes from this house employed many stock motifs from Graeco-Roman art, and imitated a painting style that was popular in contemporary wall paintings from Roman Italy. In addition, the analysis of the pigments used in the painting revealed minerals that were accessible, if not in the immediate vicinity of Humayma, from other regions of the Near East. Further analysis of the pigments and the degree to which they were used (in certain rooms in the shading, banding, outlining, blending of motifs and as background for panels)

coincided with painting techniques typical of Roman painting as outlined by Vitruvius and Pliny.

Finally, Chapter Two explored possible decorative schemes for Rooms A, B, and C. Based on a study of other frescoed houses with similar motifs (drawn largely on the work of Wallace-Hadrill, Clarke and van Binnebeke),<sup>2</sup> I was able to make some tentative conclusions about how the decoration from each room might have functioned in the daily lives of visitors and inhabitants of E125. I reasoned that the motifs and colors in the frescoes from E125 were used hierarchically to convey to the viewer the social status and cosmopolitan tastes of the owner. I also argued that, pertaining to Rooms A, B and C, the hierarchical use of motifs and color, as well as denoting social status, served to indicate room function, as was typical of Roman painting.<sup>3</sup> Until more rooms are excavated in House E125, these conclusions remain tentative.

Chapter Three emphasised the western geographical bias that exists in scholarship on houses in the provinces of the Roman Empire, and outlined the problems this bias creates for scholars working on houses in the Roman East. Placing House E125 and its decoration into a Near Eastern context of Roman domestic art and architecture was a challenge complicated by the lack of published information on houses from Arabia and the Near East. Even with a growing scholarly interest in the houses of the Roman East, in all of Arabia only a few other decorated houses from the Roman period have been found and studied. The limited, current scholarship on this topic accents the value which those few houses hold for our understanding of the art

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<sup>2</sup> Wallace-Hadrill 1988, 1994; Clarke 1991; van Binnebeke 1993.

<sup>3</sup> These suggestions were based largely on current studies on Roman domestic decoration and room function, for example Wallace-Hadrill 1988, 1994, and the works on "Functional and Spatial Analysis of Wall Paintings" in Moorman 1993.

and architecture of Roman Arabia. House E125 is one of those few houses for which the careful documentation and analysis of its art and architecture offer an important contribution to future research on Roman Arabia and the Near East.

I intended in this thesis to examine the fresco decoration from House E125 in order to assess this house in its historical, chronological and socio-cultural context. Placing the frescoes in context provides a glimpse into the living conditions, private tastes and possible identities of the inhabitants of this settlement. By studying the private art at Humayma we gain a clearer understanding of this community during the Roman period. As a product of their "patrons' requirements and social circumstances,"<sup>4</sup> the frescoes can be viewed as "a valid and unique expression of Roman cultural and social values."<sup>5</sup> The frescoes, however, are only one example of diverse cultural influences found in House E125.

Grahame writes that "the way people build their houses, orient them in space and decorate them encodes cultural meanings that express aspects of identity."<sup>6</sup> I believe that Grahame's assertion can be applied to House E125. The evidence assembled in this thesis reveals multi-ethnic influences in the art and architecture of this house. As the dominant feature amongst these influences, the frescoes reflect the original occupant's pretensions towards a Roman identity. E125's variety of cultural artifacts and mix of Roman fresco decoration and Near Eastern architecture can be

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<sup>4</sup> Gazda 1994: 3.

<sup>5</sup> Gazda 1994: 3.

<sup>6</sup> Grahame 1998: 162

viewed as a small example of the greater cultural diversity of the East under Roman rule.<sup>7</sup>

House E125 is a work in progress, and we can expect that future excavation will unearth evidence to support and expand the findings presented in this thesis. With the growing emphasis in Near Eastern archaeology on the houses of the Roman East, the study of House E125 is a valuable addition to the developing scholarship on the domestic art and architecture of Roman Arabia.

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<sup>7</sup>This view is consistent with current scholarly theories regarding Romanization throughout the Empire, for example Millett's view that "the indigenous inhabitants themselves influenced Rome's evolving approach to her provinces and resulted in a varied mix of immensely different Romanized societies" (1990: 201).

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AJA *American Journal of Archaeology*  
BASOR *Bulletin of the American Schools of Oriental Research*  
ESI *Explorations and Surveys in Israel*  
JRA *Journal of Roman Archaeology*  
SHAJ *Studies in the History and Archaeology of Jordan*

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Appendix A  
Catalogue of Fresco Decoration in the Near East

Notes:

Composition of catalogue entries.

- Name of site:** Ancient and/or modern (in brackets).
- Location:** Modern location including nearest town or city center for point of reference (in brackets).
- Date:** Date of architectural structure and/or date of fresco. All dates not B.C. are A.C.
- Structure:** Type of structure, i.e.: house, temple, tomb, etc.
- Motif:** Fresco motif (not always mentioned in the sources).
- Inscriptions:** Presence of painted inscription.
- Technique:** Painting techniques such as, shading, composition, and perspective. Description of mortar composition and application, wall composition and preparation for plaster surface. Chemical pigment analysis and execution of fresco--i.e: wet or dry.
- Comments:** Other items of interest concerning this fresco site.
- Bibliography:** Publications, which provided information for this entry.

Purpose: This catalogue provides a record of fresco sites in the Near East that share similarities with the frescoes found in building E125 at Humayma. Examples of frescoed sites from a broad geographical and temporal base provide a general idea of the range and styles of fresco present in the Near East.

**Abila of the Decapolis (Quailibah)**

- Location:** Northern Jordan: approx. 13km NE of modern Irbid.  
**Date:** 3rd century with reuse through the Byzantine period.  
**Structure:** Roman rock-cut tomb chambers.  
**Motif:** Spiral lines, portrait medallions, floral designs, human and bird figures, a winged victory. Many sarcophagi are painted with designs emulating bed coverings. The ceiling decoration included Polygonal framed panels.  
**Inscription:** Greek inscriptions often reading "good cheer" and indicating age of deceased.  
**Technique:** Colors include pink, red, yellow, black, blue-gray, blue, and purple.  
**Comment:**  
**Bibliography:** Mare (1982); Smith, & Mare (1997); Tell (1995); Vibert-Guigue, & Barbet (1982); Ling (1991).

**Aila/Ayla (Aqaba)**

- Location:** Southern Jordan.  
**Date:** 4<sup>th</sup> century.  
**Structure:** Mud-brick Christian basilica (?).  
**Motif:** Possible draped figures.

Inscription: None.

Technique: Fresco secco (?) on poor plaster laid directly on mudbrick surface.

Comment:

Bibliography: Mussel (1998).

### **Capitolias (Beit-Ras)**

Location: Northern Jordan, 5km north of Irbid.

Date: 2<sup>nd</sup> century.

Structure: Rock-cut tomb chamber.

Motif: Figural and animal motifs recall scenes from the life of Achilles and the myth of Prometheus.

Inscription: None.

Technique:

Comment: Publication does not describe fabric of plaster or the painting technique.

Bibliography: Vibert-Guigue, & Barbet (1982).

### **Deir 'Ain 'Abata, Ghor es-Safi**

Location: Jordan, NW of Kerak.

Date: 5<sup>th</sup>—6<sup>th</sup> century.

Structure: Church belonging to the Monastery of St. Lot.

Motif:

Inscription: None.

Technique:

Comment: Report mentions that the church produced "interesting fragments of wall paintings," however the author does not provide details.

Bibliography: Politis (1997).

### **Dura Europos (1)**

Location: Eastern Syria, on the Euphrates.

Date: 3<sup>rd</sup> century.

Structure: Temple of Bel (fresco from the *naos* and *pronaos*).

Motif: Figures of gods and worshippers participating in sacred acts (sacrifice of Konon), *thymiateria* (incense altars), Horses and chariots, grass and rocky landscapes, architectural facades, wavy lines, irregular sized panels.

Inscription: Greek inscription identifies participants in the sacrifice of Konon.

Technique: Walls of the *naos* originally had three horizontal registers comprised of rows of figures. Careful shading is used to represent the fall of drapery. Attention to detail is inconsistent as some of the faces of the figures are painted with great care and are markedly individual, while others show no effort at individuality but appear as quick copies from a copybook.

Shading is also used to render light brown skin tones and reveals some knowledge of color modelling. Attempts to render group compositions spatially tend to be unsuccessful and generally asymmetrical. The painted architectural facades fail to create a three dimensional perspective, and instead figures appear as if glued onto the painted background. Some of the panels, in which scenes of sacrifice take place, are framed by red lines with an inner border of yellow-brown on three sides, the bottom portion of the frame being more than twice as wide as the other two sides. Colors are rich and include bright green, yellow, red, purple, blue, brown violet, and black.

**Comment:** The figural scenes show a colorful combination of Greek and Asiatic (Parthian) elements in the costumes—Perkins states that this is a characteristic of Durene art. Perkins concludes that the local artist had some knowledge of Western painting traditions but did not have the technique to imitate it with success. Many of the scenes show figures wearing white garments which use the ground color—a practice common in Hellenistic painting, whereas Roman painting adds white pigment on top of other colors, Perkins suggests that this use of the ground color may reflect the lingering influence of Hellenism in the East.

**Bibliography:** Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (2)**

**Location:** Eastern Syria on the Euphrates.

**Date:** 2<sup>nd</sup> century.

**Structure:** Temple of Zeus Theos (fresco found in the *naos*).

**Motif:** Human figures, horses, chariots, winged Victory, mythical figures.

**Inscription:** A painted inscription identifies figures in a scene showing a succession of life-size worshippers.

**Technique:** The side walls contained at least two registers separated by bands of painted mouldings. Characteristic of Durene art, the eyes (the profile eye) are painted over large. Fold lines of clothing are brushed in lightly and schematically, figures show a careful attention to shading. All the life-size figures in the succession scene are frontal with no overlap. Colors include blue, yellow, red, brown, violet, and varying shades and combinations of these. Outlines are often in black.

**Comment:** The *naos* had three walls covered with monumental painting. Very little survives *in situ*, but collapsed fragments are large and well preserved. As in the Temple of Bel, scenes show bejeweled worshippers, golden chariots and red and white horses. The winged Victory scene is noteworthy, as fragments show a facing pair of Victories. One fragment reveals the profile

head and upper body with the face shown against the feathers of a spread wing. This is the only profile view of a Victory at Dura. Perkins notes that although the fragments are similar in style and technique, the details of individual figures show different hands. Like other paintings at Dura, Perkins suggests that the paintings were probably done piecemeal as donors had the means.

Bibliography: Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (3)**

Location: Eastern Syria on the Euphrates.

Date: Early 3<sup>rd</sup> century.

Structure: Mithraeum (Middle phase of occupation)

Motif: Garlands, figural scenes and cult reliefs of the life and deeds of Mithras, the symbolic killing of the bull (*Tauroctone*), initiation of Sol into the Mithraic cult, and scenes of Mithras the hunter.

Inscription: Painted inscription identifies donors.

Technique: Scenes are on a large scale painted in bright greens, blues, yellows, and various shades of red. Faces are carefully shaded, or boldly outlined, or painted in a flat wash of color, which suggests the work of different hands. Flesh sometimes is left in the ground color (red-brown, or a light rose-pink). The brushwork shows a confident, bold, and heavy sweep. Some faces are in three-quarter view, which is unusual at Dura.

Comment: Perkins concludes that the refinement of the Middle Mithraeum fragments reveals that at least one painter of these scenes was acquainted with Western painting techniques.

Bibliography: Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (4)**

Location: Eastern Syria, on the Euphrates.

Date: Middle 3<sup>rd</sup> century.

Structure: Mithraeum (Late phase of occupation).

Motif: Human figural and animal scene from the life of Mithras, signs of the zodiac, the night sky, a *Tauroctone* scene, and Mithras hunting on his horse.

Inscription: None.

Technique: The scale of fresco from this phase is small in comparison to the middle phase of occupation. Colors are restricted to reds, black, yellow, and white. There is no shading and all human faces are frontal. Figures are awkwardly rendered and painted in heavy lines. Clothing is accented with heavy brush-strokes to suggest voluminous folds. The hunting scene contains human and animal figures painted in curving contours that suggests free motion.

**Comment:** According to Perkins the hunting scene echos the popularity for the hunt seen in Western Asia since Assyrian times. Perkins also notes that hunting scenes also appear in the graffiti at Dura and may reflect a local element.

**Bibliography:** Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (5)**

**Location:** Eastern Syria, on the Euphrates.

**Date:** Late 2<sup>nd</sup> and 3<sup>rd</sup> century.

**Structure:** Bath (fresco from the *frigidarium*).

**Motif:** Image of a flying Victory standing on a globe holding a wreath in one hand and a palm branch in the other.

**Inscription:** None

**Technique:** This image of Victory is not painted within a frame or border, and freely occupies space on one side of a pier. Heavy brush strokes were intended to create a quality of motion, but are unsuccessful in doing so. The body is sharply outlined, and exposed flesh is left in the ground color.

Perkins states that heavy brush strokes are indicative of late 2<sup>nd</sup>/early 3<sup>rd</sup> century works at Dura. Colors used include green, yellow, red, purple, blue, brown violet, and black.

**Comment:** According to Perkins this motif is a "well-known Western type, much loved throughout the Roman Empire. Though the ill proportioned body is distinctly Durene.

**Bibliography:** Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (6)**

**Location:** Eastern Syria, on the Euphrates.

**Date:** Late 2<sup>nd</sup> century (193 A.D.)

**Structure:** Private house (frescoes from wall of main living room).

**Motif:** Banquet and hunting scenes, panels framed with colored bands, architectural, garlands, flowers, nude winged Eros holding a crown and a down-turned torch, a sitting Aphrodite.

**Inscription:** Painted Greek inscriptions name the figures in the banquet scene, and remind the onlooker to remember the painter. The inscription from the hunt scene names the painters, "Elahsams" and "Th'oma" and dates the painting (A. D. 193).

**Technique:** Painted architectural façades (esp. dentils) are carefully shaded to produce a three-dimensional effect. Figural scenes are two-dimensional. Horses in the hunting scene are rendered in bold lines creating the effect of rapid motion. A heavy line is used for contours and details. Colors include reds, black, white, green, and yellow.

**Comment:** Men in the banquet scene are shown with short curly black hair and wearing fillets. Women are shown with hair covered by a *himation*. Garlands hang from the upper borders of the banquet

scenes and open spaces between the figures are filled with images of four-petaled flowers. The banquet and hunting scenes are both of a funerary character, making them an odd choice of decoration in a living space of a house. Perkins suggests that the master of the house simply wanted to record the activities that he himself enjoyed.

Bibliography: Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (7)**

Location: Eastern Syria, on the Euphrates.

Date: Late 2<sup>nd</sup> century

Structure: House of the Roman Scribes.

Motif: Nude Aphrodite, winged Eros, and two women attendants.

Inscription: None.

Technique: Aphrodite is painted in the Greco-Roman tradition which shows the weight on the right leg, the hip thrust out, and the head turned to the right in a three-quarter view. The body of Aphrodite is light-colored. The two women attendants are painted as large bulky figures. All figures are two-thirds life-size. Colors used are pink, grays and blue.

Comment: The scene of Aphrodite and Eros accompanied by attending women is a Western subject.

Bibliography: Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (8)**

Location: Eastern Syria, on the Euphrates.

Date: 3<sup>rd</sup> century.

Structure: Synagogue.

Motif: Mottling to imitate a marble surface, incrustation panels, rosettes, painted architectural facades, floral patterned dado, fruit, human figures, twisted ribbon motif.

Inscription: None.

Technique: The walls were divided into registers and attempts to render group compositions spatially tend to be unsuccessful. Combination of registers: the lower zones painted to imitate marble, main zones were a series of incrustation panels, upper zone were white. Colors used were green, yellow, red, purple, bright blue, brown violet, gray, and black.

Comment: Most panels show cyclic illustrations (repetitive narrative illustrations) depicting scenes from Jewish history.

Bibliography: Perkins (1973); Weitzmann, & Kessler (1990).

### **Dura Europos (9)**

Location: Eastern Syria, on the Euphrates.

Date: 3<sup>rd</sup> century.

- Structure:** Baptistery.
- Motif:** Human figural, painted architectural façades, fruit garlands, animals, and banding motifs. Cult paintings include the Good Shepherd, Adam and Eve in Paradise, Miracles of Christ, and David killing Goliath.
- Inscription:** None.
- Technique:** The walls were divided into two registers showing narrative scenes separated by simple bands. The registers show no ground line, and faces and bodies are often frontal with legs in profile. Outlines and interior details are drawn in a sketchy manner with heavy, and irregular brush strokes. Figures are painted in a flat wash. Colors rely heavily on red and yellow, and less heavily on blue, gray-green, black, and white. There is no color modelling and no highlighting, and attempts at composition are unsuccessful.
- Comment:** Perkins states that scenes appear to have been slapped against the walls with no concern for visual effect.
- Bibliography:** Perkins (1973); Weitzmann, & Kessler (1990).

#### **'En Ya'el**

- Location:** Ca. 5km south of Jerusalem.
- Date:** Late 2<sup>nd</sup> early 3<sup>rd</sup> century.
- Structure:** Roman mansion.
- Motif:** Geometric (Rectangles).
- Inscription:** None.
- Technique:** Colors include black, red and green.
- Comment:** Excavators mention that hundreds of colorful fresco fragments were recovered in the excavation. Mosaics were also found and the report focuses mainly on descriptions of these. One of the bathhouses associated with the house was decorated with fresco. There is no description of the fresco from the bath.
- Bibliography:** Edelstein (1988/89)

#### **Hawar/Auara (Humayma) (1)**

- Location:** Jordan: in Hisma
- Date:** Late 2<sup>nd</sup>/early 3<sup>rd</sup> century.
- Structure:** Roman house.
- Motif:** Various robed, nude, and winged figural motifs, wreath held in an eagle's beak and pedastalled birdbath. Decorative motifs include key pattern, loosely wound volutes, grape clusters, scrolling, polygonal borders and colored banding.
- Inscription:** One notable fragment shows lower portion of a robed figure above the painted Greek inscription of the word referring to the Greek muse of History.
- Technique:** Flesh tones are usually indicated by pink color and outlined in light to dark gray. Fragments showing human face are outlined

with a thin gray band or light red and gray. Colors include gray, reds, orange, purplish-brown, brown, yellow, pink, light green and olive-gray. Pigment analysis revealed pigments of green earth, yellow ochre, and red ochre. Most likely fresco in this structure is true fresco due to the absence of a binding medium. Support layer was composed of calcite and quartz. Plaster was applied to mud-brick and stone surfaces.

**Comment:**

**Bibliography:** Corbeil, & Helwig (1997); Oleson (1997).

**Hawar/Auara (Humayma) (2)**

**Location:** Jordan: in Hisma.

**Date:** 2<sup>nd</sup> century.

**Structure:** Roman Fort.

**Motif:** Geometrical, colored banding.

**Inscription:** None.

**Technique:** Fresco executed with some gold-leaf details. Colors include white, yellow, green, blue, and red. Pigment analysis revealed the presence of Egyptian blue, an ancient synthetic pigment originating in Egypt and exported throughout the Roman Empire until around the seventh century AD. Egyptian blue is also found in Dura Europos and Pompeii. Lack of evidence for a binding medium indicates true fresco technique.

**Comment:**

**Bibliography:** Corbeil, & Helwig (1997); Oleson (1995) & (1997).

**Hawar/Auara (Humayma) (3)**

**Location:** Jordan: in Hisma.

**Date:** 8<sup>th</sup> century.

**Structure:** Early Islamic Abassid Qasr.

**Motif:** Tendril designs with floral pattern set within a continuous pearl beaded band.

**Inscription:** None.

**Technique:** True fresco technique--paint applied to wet plaster. Colors range from black, red, gray, rust, orange, mauve, salmon, yellowish-green, and white. Pigments are all mineral compounds.

**Comment:**

**Bibliography:** Corbeil, & Helwig (1997); Oleson (1995).

**Hayyan al-Muhref**

**Location:** Northern Jordan, 8km SE of Mafraq (near roads that linked Bosra to Jarash and Amman in antiquity).

**Date:** 6<sup>th</sup> century.

**Structure:** Church.

**Motif:**

**Inscription:** None.

Technique:

Comment: There is no mention of motif in the report, only that the walls of the apse were decorated with fresco.

Bibliography: al-Muheisen (1997).

### Herodium

Location: 12 km south of Jerusalem.

Date: 1<sup>st</sup> century B.C.

Structure: Palace-Fortress.

Motif: Rectilinear patterns of horizontal and vertical lines, stripes, and bands.

Inscription: None.

Technique: Painting was executed in the true fresco technique. The plaster from this site consisted of two or three primary layers with the first of these being thick, irregular and coarse in texture (1-2.5 cm). The top layer (painted layer) is thin (0.3-0.6 cm) and composed of powdered marble. The plaster is a creamy color and porous consistency containing lime, sand and white marble. The pigments from this site were mixed with water from slaked lime removing the carbonic layer and therefore rendering them compatible only with lime plaster. Colors include white, yellow, red, green, and black (*fresco secco*).

Comment: Closest parallels for these frescoes are from other Herodian sites such as the palace at Jericho, Masada, and Samaria. The author states that these are examples of provincial art, stylistically belonging to the Second Pompeian Style—though they display a large measure of originality.

Bibliography: Netzer (1981).

### Jericho

Location: West Bank

Date: Late 1<sup>st</sup> century B.C.

Structure: Herod's Palace.

Motif: Lines, panels and bands.

Inscription: None.

Technique: Wall construction alternated between well prepared stone and brick layers. Plaster was two to three layers thick including a finishing coat of lime plaster. Plaster contained marble dust used to attain a high level of shine in the painting. Colors include white, yellow, orange, brown, reds, pinks, violet, blue, green and black. Evidence of fresco secco technique employed with certain pigments, but the majority of painting is true fresco. Painted in the 2<sup>nd</sup> Pompeian Style.

Comment: Ceramic vessels containing pulverized pigment powders were discovered in this palace. These bowls find parallels in the

Temple of the Winged lions in Petra, Jordan, in what is described by Rozenberg as a "painter's workshop."

Bibliography: Rozenberg (1997).

#### **Khirbet edh-Darih (1)**

Location: Jordan, between Kerak and Petra, in the Wadi Haban.

Date: 1<sup>st</sup> century (with reuse in later periods).

Structure: Nabataean temple.

Motif:

Inscription: None.

Technique:

Comment: Authors state only that fresco was found in the cella of the temple.

Bibliography: al-Muheisen, & Villeneuve (1994).

#### **Khirbet edh-Darih (2)**

Location: Jordan, between Kerak and Petra in the Wadi Haban.

Date: 1<sup>st</sup> century (with reuse in later periods).

Structure: Nabataean house.

Motif:

Inscription: None.

Technique:

Comment: Report mentions only that the walls retained traces of painted plaster.

Bibliography: al-Muheisen, & Villeneuve (1995).

#### **Kurnab (Mamphis)**

Location: Central Negev.

Date: Middle and Late Nabataean (2<sup>nd</sup> and 3<sup>rd</sup> centuries)

Structure: Described in Negev (1988) as "building XII", a large Nabatean house. Exterior walls made of ashlar. Interior walls of squared stone blocks laid either dry or with intervening layers of small stones set in mud mortar.

Motif: Images include nude male figures holding ribboned garlands and palm branches, portrait medallions, winged females, a mythological scene of Eros and Psyche, dots and alternate hatching, radiating stripes, and small floral motifs.

Inscription: Painted Greek inscription written in cursive letters.

Technique: Walls were covered with a layer of greyish plaster, about 3cm. thick, over this was a very thin (1mm.) layer of fine white plaster. Pigments made of metallic oxides were applied on the wet plaster in the true fresco technique. Colors included reds, browns, greens, blues and yellows. Walls were divided into painted scenes on upper portions, individual figures on the voussoirs of arches. A decorative frieze running along the walls below the painted scenes also covers the lower parts of the

arches. The figures were executed with thick outlines and awkwardly rendered physical postures. The faces of female figures show a more stylized and less naturalistic-looking technique than the faces of the male figures.

**Comment:** Portrait medallions reflect a western and naturalistic scope influenced by Roman and classical prototypes. Winged female figures hold palm branches indicating a classical decorative motif. The decorative register that runs along lower part of walls shows a repeated motif that resembles a small-fringed "carpet" executed with dots and alternate hatching (fringe).

**Bibliography:** Negev (1988).

### **Marwa**

**Location:** Northern Jordan.

**Date:** Middle 2<sup>nd</sup> century.

**Structure:** Rock cut tomb chamber.

**Motif:** Mythical scene showing Hades and Persephone.

**Inscription:** None.

**Technique:**

**Comment:**

**Bibliography:** Vibert-Guigue, & Barbet (1982).

### **Migdal Ashqelon**

**Location:** West of Jerusalem on the south coast of Israel.

**Date:** Late 2<sup>nd</sup>-early 3<sup>rd</sup> century.

**Structure:** Roman mausoleum.

**Motif:** Figural, animal and floral motifs.

**Inscription:** None.

**Technique:** The building was cast in one piece of gray concrete mixed with small stones, ashes and crushed shells. The courtyard was enclosed by plastered, cast concrete walls. The entrance was set into a wall of ashlars laid headers and stretchers, which was attached to the mausoleum front. Colored frescoes depicting human figures and animals, as well as floral designs of painted red flowers and green branches were applied on a light brown background and occupied five burial niches. Each of the niches contained a painted human figure of a nude youth holding an offering of a peacock, a pair of ducks and a heaped plate, a pair of wine amphoras, and an unidentified rectangular vessel. One niche, however, is described by the author as containing a corresponding taller figure holding an unidentifiable offering, which was carelessly painted in a style different from the other figures. The remains of red and black paint were visible in some niches.

**Comment:** Excavation report contains color plates of the frescoes.

**Bibliography:** Kogan-Zehavi (1996)

**Palmyra**

Location: Central Syria.  
 Date: Late 2<sup>nd</sup> or 3<sup>rd</sup> centuries.  
 Structure: House.  
 Motif: Geometric and marbling motifs arranged in large panels.  
 Inscription: None.  
 Technique: Technique consisted of a single coat of mortar composed of plaster, limestone, sand and magnesium carbonate. Paints in the form of powdered metallic oxides (red and black iron oxides) are suspended in water then applied to dry surface (the mortar was porous enough to retain oxide powders). This technique deviates from Roman true fresco method, in which the *fresco secco* technique was preferred.

Comment:

Bibliography: Colledge (1976).

**Petra (1)**

Location: Jordan on Ez-Zantur.  
 Date: 1<sup>st</sup> century B.C. / 4<sup>th</sup> century.  
 Structure: Nabataean/Roman house (House EZ IV)  
 Motif: Painted architectural facades, colored banding, panels, imitation marbling, and geometrical designs including lozenges, squares decorated with circles, and triangles.  
 Inscription: None.  
 Technique: The walls from Ez Zantur are extant to 3 m in height and stand directly on bedrock. They are of a double-faced type of construction, roughly dressed and were covered with a thick layer of coarse under-plaster and fine finishing stucco. Extant frescoes reach to about 1.5 m in height. Room one at Ez Zantur contained illusionistic architectural facades in a symmetrical design which evolved as a *trompe l'oeil* from a closed background, imitating alabaster, opening into the room in the direction of the viewer. The architectural scheme shows a narrow epistyle and supporting pilasters framing the architectural paintings on three sides. The patterns revealed on the background architecture imitate *opus sectile* as they are painted red on white to imitate marbling. Colors include red, yellow, white, black, blue-green, and a combination of these. Rooms Two and Three are secondary and less important rooms showing a decorative scheme in the Masonry Style. Red and yellow panels delineated by thin grooves to imitate drafted orthostates and lined in white, alternate in a row resting below a row of red stretchers and yellow headers.

**Comment:** Stucky mentions only that the remains of the frescoed walls reveal the "highest Hellenistic standards." This high standard is seen also in the moulded architectural stucco from which there are fragments of painted and gold plated cornices, modillions and dentils. Also noteworthy are the floor mosaics that are directly comparable to the fresco decoration of the upper zone of Room One. Kolb (1997) concludes that the artist was a local of Petra who was familiar with the monuments and infused his work with Nabataean influences. Kolb also writes that the fresco from this site is an original and provincial interpretation of the early Augustan period, though executed in the 1<sup>st</sup> century. Color photos from Stucky et al. show parallels to E125. A motif they both share for example is the colored banding.

**Bibliography:** Barbet (1995); Stucky (1995); Kolb (1997), (1998); Kolb, & Stucky (1993); Stucky (1996).

### **Petra (2)**

**Location:** Jordan.

**Date:** Nabataean (1<sup>st</sup> century ) through Late Roman-Byzantine periods.

**Structure:** Southern Temple (Great Temple).

**Motif:** Painted architectural façades.

**Inscription:** None.

**Technique:** Colors include reds, greens, yellows and browns.

**Comment:** The author mentions that painted plaster was found and entered into the computer database. The frescoes were found on the walls of the Temple East Corridor. Walls are preserved up to 6 m.

**Bibliography:** Sharp Joukowsky (1996) & (1998); (1999).

### **Petra (3)**

**Location:** Jordan.

**Date:** 1<sup>st</sup> century.

**Structure:** Nabataean rock-cut house in the north bank of the Wadi as-Siyyagh.

**Motif:** Architectural façades. Two blind doorways are depicted, one of them being topped by a sphinx with spread wings. The blind doorways are framed by pale-blue bands which appear on an orange or dark-red background, while the door flaps are alternately red or yellow. A rhombus pattern can be distinguished in the upper zone of the walls.

**Inscription:** None.

**Technique:** Triple layer mortar with first layer in direct contact with rock wall (mortar of very uneven thickness). The second layer of

mortar is composed of finer aggregate and a more even thickness. The fresco layer is of even thickness. The motifs show Hellenistic (Alexandrine) influence through the use of painted architecture, but they exhibit limited perspective. Colors include pink, white, black, orange, blue, and red.

Comment:

Bibliography: Franchi, & Pallecchi (1995); Zayadine (1987); McKenzie (1990).

#### **Petra (4)**

Location: Petra Valley: Beida (Siq el Bared fresco).

Date: Early 1<sup>st</sup> century.

Structure: Rock-cut house.

Motif: Vine scrolls that frame medallions containing images of birds. Hunting scenes including images of *putti*.

Inscription: None.

Technique: Rock wall surface shows cut dressing of furrows which are continuous, parallel and uniform. Vaulting and ceiling furrows are shallow and close together. The painted fresco layer is a few millimeters thick containing fragments of calcareous rock finely ground and bound with lime. This thin fresco layer was applied on to a triple layer of mortar of uniform thickness and texture. The mortar aggregate is almost exclusively quartz with a small amount of carbonate rock. The binder is well carbonated and evenly distributed, porosity is low and pore size is small.

Comment: Alexandrine influence is revealed in the masonry style panels with a red draft. The vine scrolling is an intricate pattern, with leaves, grapes and tendrils attached.

Bibliography: Zayadine (1987); Franchi, & Pallecchi (1995); McKenzie (1990).

#### **Qasr 'Amr**

Location: Jordan, 85km east of Amman.

Date: Early 8<sup>th</sup> century.

Structure: Audience hall/Bath complex.

Motif: Motif varies showing bathing and hunting scenes, dancing figures, athletics, wrestlers, gift bearers, scenes connected to builders trade and pastoral life. Constellations of the Northern Hemisphere and signs of the zodiac decorate the dome of the *caldarium* in the bath.

Inscription: None.

Technique: Figural representations range from naturalistic with varied poses, to formalized (Byzantine), to clumsily executed stiff and schematic figures rendered with heavy brush strokes.

**Comment:** Motif reveals Greco-Syrian artistic tradition with classical themes such as, flying angels, putti, and personifications of history, philosophy, and poetry.

**Bibliography:** Bisheh (1997); Vibert-Guigue (1995).

### **Qasr al-Hallabat**

**Location:** Jordan, 25km NE of Zerqa.

**Date:** Early 8<sup>th</sup> century (Umayyad Period)

**Structure:** Islamic Qasr (villa).

**Motif:** Design shows geometrical patterns, various fruits, animals and birds

**Inscription:** None.

**Technique:**

**Comment:**

**Bibliography:** Bisheh (1987).

### **Samaria**

**Location:** Palestine (On the ancient route from Jerusalem to Damascus).

**Date:** 1<sup>st</sup> B.C. – 1<sup>st</sup> A.D.

**Structure:** Fresco from this site was found reused in secondary buildings dating to the mid second century. Wall stones with painted plaster were found reused in the Doric stadium and the tower.

**Motif:** Architectural façades, colored panels and banding, floral, imitation marble, and egg and dart motifs.

**Inscription:** None.

**Technique:** The fresco fragments belonged to a group of soft quality stones reused in later structures. Sixteen of these stones were brightly painted crenellated blocks in the "crowstep" pattern. Other fragments showed a row of solid colored panels alternating with an imitation marbled panel, on top of areas of colored banding. One fragment shows an egg and dart design with dark shading to create depth. Another fragment shows rows of lilies and anemias in panels shaded to look as if they had moulded frames and a cornice. Colors include maroon, green, beige, purple, black, brown, yellow, violet, white and combinations of these.

**Comment:** The dating of these fresco fragments is difficult due to their reuse. Stylistically these motifs are found both in Hellenistic paintings and in paintings from the Late Second Style found in Italy. Rozenberg dates the Samaria frescoes to the Herodian period.

**Bibliography:** Crowfoot (1966); Rozenberg (1993).

### **Sippori (Sepphoris)**

**Location:** Ca. 100km north of Jerusalem and west of the sea of Galilee.

**Date:** 2<sup>nd</sup>—4<sup>th</sup> centuries.

**Structure:** Roman mansion.  
**Motif:** No description.  
**Inscription:** None.  
**Technique:**  
**Comment:** The excavation report states only that one room west of the banquet hall was decorated with fresco. Many fragments were found in the debris filling the room. There is more detail of the mosaics which survive in this house.  
**Bibliography:** Meyers et al. (1987/1988).

### **Umm Qays (Gadara)**

**Location:** Northern Jordan.  
**Date:** 1<sup>st</sup> century.  
**Structure:** Roman House  
**Motif:** Architectural façades, varied colored panels, and marbling.  
**Inscription:** None.  
**Technique:** Walls were covered with two to three layers of plaster with whitewash covering the painted layer. Colors include red, green, pink, white and black.  
**Comment:** Most rooms contained richly decorated plaster in the Pompeian Second Style with motifs similar to those found at Masada.  
**Bibliography:** Kerner (1997).

### **Wadi Musa**

**Location:** Jordan, Petra valley.  
**Date:** 1<sup>st</sup>—2<sup>nd</sup> century.  
**Structure:** Villa.  
**Motif:** Motif varied room to room from architectural-style frescos in bright colors, to lively designs of green grasses, bunches of grapes, and olive branches, to those showing free-flowing strokes within a red border.  
**Inscription:** None.  
**Technique:**  
**Comment:** This villa was demolished after excavation ended.  
**Bibliography:** 'Amr (1997).

### **Wadi Ramm**

**Location:** Southern Jordan.  
**Date:** 1<sup>st</sup> B.C./1<sup>st</sup> A.D.  
**Structure:** Nabataean Villa/Bath complex.  
**Motif:**  
**Inscription:** None.  
**Technique:**  
**Comment:** Authors mention only that numerous fragments of decorative plaster were found.  
**Bibliography:** Dudley, & Reeves (1997)

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### Bibliographic Abbreviations

ADAJ *Annual of the Department of Antiquities of Jordan*

AJA *American Journal of Archaeology*

ESI *Explorations and Surveys in Israel*

JRA *Journal of Roman Archaeology*

SHAJ *Studies in the History of the Archaeology of Jordan*

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Appendix B  
Processed Fresco—Humayma 1996/1998

Appendix B contains all of the fresco processed from the 1996 and 1998 Humayma excavation of house E125. Fragments drawn in Plates A1-A20 are to scale. The drawn fragments are a small representation of the motifs from E125; they are included to provide a visual image to supplement the written descriptions of the fresco fragments. The fresco fragments have been arranged numerically according to their listed appendix (bucket) number. I have placed the 1998 processed fresco first in this appendix as they make up the bulk of evidence discussed in the thesis. A Munsell color key listing the colors identified on the E125 fresco follows the table of contents. The abbreviations used in the fragment description for maximum preserved length and maximum preserved width are, respectively, MPL and MPW.

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Munsell Color Key

Gray: Gray (5Y 5/1, 5Y 6/1, 2.5Y N5)

Dark Gray (5Y 4/1)

White: Pale brown (10YR 8/3, 10

YR 8/4, 10 YR 8/5), white

(10 YR 8/2, 5YR 8/1), pinkish white (7.5 YR 8/2, 5 YR 8/2)

Reds: Light Red (7.5 R 6/8, 7.5 R

6/6, 10 R 6/6, 10 R 6/4, 10R

6/8, Red (7.5 R 5/8, 7.5 R 6/8, 7.5 R 4/8, 7.5 R 4/6, 7.5 R 5/6, 10 R 6/6,  
2.5YR 4/6, 5 R 5/6.

Pale Red: 10 R 6/4.

Dark Reddish Brown: 5YR 3/4, 5YR

5/4,

Light Reddish Brown: 2.5YR 6/4.

Weak Red (purplish brown): 7.5R

4/2, 7.5R 5/4.

Reddish Brown 2.5YR 4/3.

Reddish Gray; 10R 6/1;

Yellow: 10YR 8/6, 10YR 7/6, 2.5Y

8/6

Pink: 5YR 7/4

Light Green / Pale Yellow: 2/5Y 8.6;

5Y 7/3

Light Olive Gray: 5Y 6/2

Pinkish Gray: 5YR 7/2

**Bucket #98.0112****Locus 15****Square 04 (Room A)**

98.0112.001

73 fragments (246g) of red-faced plaster. Discard.

98.0112.002

8 fragments (52g) showing a red band bordered by a white band/field. 1 fragment (22g) shows a light red band (W 0.021) on a white field. Discard.

98.0112.003

2 fragments (10g) showing a red line/field, a gray band (W 0.009-0.02), and a white field/band. Discard.

98.0112.004

5 fragments (24g) showing portions of red bands bordered by gray bands. Discard.

98.0112.005

3 fragments (18g) showing an indeterminable design consisting of gray bands bordering white fields. Discard.

98.0112.006

15 fragments (42g) of white-faced plaster.

98.0112.007

1 fragment (10g; Th 0.004; MPL 0.052; MPW 0.045) showing a worn green design (MPL 0.025; W 0.005) of a band and green circular "blobs," on a white field (similar to the "tulip" motif). Discard.

98.0112.008

1 worn red convex corner fragment (14g; MPL 0.045; MPW 0.017). Discard.

**Bucket # 98.0113****Locus 18****Square 04 (Room A)**

98.0113.001

494 white fragments (1456g; Th 0.003-0.015), possibly from panel inside painted border, or from the bottom portion of the wall.

98.0113.002

45 fragments (202g) showing yellow, red, black and white. No discernible motif, though colors indicate possible association to figural design. Discard.

98.0113.003

18 fragments (46g) showing olive green color—possibly discoloration from the soil. Discard.

98.0113.004

121 fragments (1024g; Th 0.003-0.010) showing portions of red, white and black banding, or border motif. The largest restored fragment in 2 pieces (20g; Th 0.004; MPL 0.070; MPW 0.045) shows a black band (W 0.022) bracketed by a white (MPW 0.02) and a red field (MPW 0.025). 1 restored concave corner fragment in 11 pieces (100g; Th 0.005) shows a red band extending from the corner (W 0.080), a gray band (W 0.022), a white band (MPW 0.031). Kept.

98.0113.005

9 corner fragments (134g; Th 0.005-0.010) showing tonalities of red from dark to light pink. Together fragments reach a height of 0.410 m.

98.0113.006

300 red fragments (1274g; Th 0.004-0.007), possibly from a banding or panel motif. Discard.

98.0113.007

97 fragments (476g) showing portions of an indeterminable red, pink and gray design on a white background. The gray lines (W 0.002-0.005) appear to have been added to edge of pink field and to form part of the design on white. Kept.

98.0113.008

1 fragment (6g; Th 0.003; MPL 0.035; MPW 0.033) showing a pink area (MPL 0.008; MPW 0.017) in the bottom corner, with an undulated dark red border (0.004 H at trough; 0.006 H at peak; MPL 0.023) on a white field. There is a thin black detail line between the red and pink. Kept.

98.0113.009

18 fragments (116g) of hard, sandy off-white plaster, showing dark gray lines (W 0.002-0.005). Possibly letter fragments or simple design in black and white. Some fragments show parallel straight and curved lines at varying distances (0.001-0.002 m). Kept.

98.0113.010

2 restored fragments in 11 pieces (76g). First restored fragment shows possible border and field with black

vertical area (MPW 0.02), a dark red band (W 0.034), a white band (W 0.031) and a worn black area (MPW 0.024). The second fragment shows only a red (W 0.007) and a white field (W0.107). All fragments were heavily whitewashed making it difficult to discern details. Discard.

98.0113.011

11 fragments (210g; Th 0.010) of thick plaster with traces of whitewash over faded yellow pigment, possibly part of a framed panel. Discard.

98.0113.012

6 fragments (50g; Th 0.007) showing banded border motif in dark red (MPW 0.020), pink (W0.007) and light red (MPW 0.020). Discard.

98.0113.013

7 fragments (60g; Th 0.003-0.006) showing pink (MPW 0.023) and white (MPW 0.020) fields. Possibly from banded border motif. Discard.

98.0113.014

56 pink fragments (112g; Th 0.003), possibly associated with 98.0113.013. Discard.

98.0113.015

78 miscellaneous red fragments (250g). Discard.

98.0113.016

21 light gray fragments (180g). The largest restored fragment in 3 pieces (92g; Th 0.005; MPL 0.0155; MPW 0.092) has a smooth plaster back; that suggests original place on mudbrick. Discard.

98.0113.017

57 pink fragments (272g). 2 fragments show thin pink brush strokes (W 0.003). 1 fragment shows pink brush strokes together with what appear to be pink dots on a white field (14g; Th 0.006; MPL 0.050; MPW 0.035). Kept.

98.0113.018

34 fragments (164g) showing portions of indeterminable motif consisting of brown, red, and black design of lines and dots on a yellow background. 1 restored fragment in 2 pieces (14g; Th 0.005; MPL 0.046; MPW 0.045) shows a curved dark gray line (MPL 0.030; W 0.005) on a yellow field. There are two red dots (D 0.008 x 0.01; 0.008 x 0.008) where gray line terminates. Kept.

98.0113.019

7 fragments (60g) showing a red/brown band or field. 1 fragment shows a red/brown area bordered by white field. Discard.

### **Bucket #98.0114**

#### **Locus 14**

#### **Square 04 (Room A)**

98.0114.001

1 restored corner fragment in 19 pieces (1140g; Th 0.007; MPL 0.365; MPW 0.403). Fragment shows a loosely wound gray volute (band width 0.010 m) on a pale brown field bordered on the bottom and left by a gray band (W 0.017). Volute sits on bottom band. To the left of the gray band is a light red border (W 0.03; MPL 0.012) that extends across the concave corner. Below the primary field is a second smaller, horizontal field bordered above and on the left by the same gray band from the volute field.

This field is bordered below by a dark, reddish-brown band (W 0.027) framing a very pale brown field (0.043). Two narrow parallel dark reddish-brown bands (each W 0.003; separation 0.003 m) bisect the field horizontally. A third fragment shows a pale brown field below the dark, reddish brown band. Colors blend where bands overlap

98.0114.002

1 restored fragment in 8 pieces (108g; Th 0.006; MPL 0.183; MPW 0.087) showing portions of a gray volute (band width 0.013) on a pale brown field.

98.0114.003

1 restored (concave?) corner fragment in 26 pieces (288g; MPL 0.23; MPW 0.20). Moving away from the corner a red band (W 0.042) is edged by a gray band. A dark reddish-brown band (W 0.024) abuts the gray band, and frames a vertical field (W 0.038) that extends from bottom of fragment to within 0.079 m of top. To the right is a light red band or field (W 0.053), bordered by a gray band (W 0.012) that is abutted by a white area (W 0.007). The area above the dark reddish-brown band shows a horizontal yellow field (W 0.44) bordered by a gray area with 2 horizontal dark reddish-brown lines (each W 0.003; separation 0.005 m) in the center of the field.

98.0114.004

1 restored corner fragment in 7 pieces (204g; MPL 0.195; MPW 0.150), showing similar design as 98.0114.003, with bands of red, gray, yellow, dark reddish-brown, and

light red. All bands are the same width as in 98.0114.003, except red corner band (W 0.059). Colors blend where bands overlap.

#### 98.0114.005

1 restored fragment in 22 pieces; 384g; Th 0.006-0.007; MPL 0.227; MPW 0.209). Fragment shows the Greek painted inscription of the word KLEIW in gray (MPL 0.121; average height of letters 0.037). Above the letters (c.0.02 m) is what appears to be the lower portion of a robed figure outlined in dark gray with drapery indicated by differing shades of red and pinkish white. There is a triangular protrusion on the bottom left side of the robe, possibly a slipper. The scene is painted on a white field (MPL of figure 0.161; MPW of figure 0.105).  
\*See Fig# in Chapter Two.

#### 98.0114.006

18 fragments (224g) showing similar design as in 98.0114.003. 1 restored fragment in 6 pieces (48g; MPL 0.19; MPW 0.047). 1 restored fragment in 3 pieces (20g; MPL 0.09; MPW 0.048). 1 restored fragment in 2 pieces (8g; MPL 0.046; MPW 0.024). All fragments show a gray band (c. 0.015 to 0.020w) bracketed by a light red area and a white area.

#### 98.0114.007

1 restored fragment in 6 pieces (40g; MPL 0.07; MPW 0.07) showing similar design as 98.0114.003. From left to right: a gray area, a yellow field (W 0.042) with 2 horizontal dark reddish-brown parallel lines (W 0.004; separation 0.005 m), a dark reddish-brown band (W 0.025) and a red area (MPW 0.018).

Colors blend where they overlap.

#### 98.0114.008

1 restored fragment in 19 pieces (352g; MPL 0.350; MPW 0.245; Th 0.0025-0.0060) showing a pale brown area (W 0.246) abutting a pink area (W 0.104) with a freehand demarcation between the two colored areas. It is possible the pink represents a portion of a human figure.

#### 98.0114.009

213 pieces (980g) showing similar design as in 98.0114.003. Colors include light red, dark reddish-brown, yellow, gray, light reddish-brown, and weak red.

1 restored fragment in 5 pieces (104g; MPL 0.181; MPW 0.0135) showing, from left to right, a light red area, a dark reddish-brown band (W 0.026), a yellow band or field (W 0.041), and a gray band (W 0.024).

1 restored fragment in 3 pieces (74g; MPL 0.13; MPW 0.095), showing a gray band (W 0.018) abutted by a perpendicular, dark reddish brown band (0.028w). The view is divided into three fields. A yellow field and a light red field bracket the dark reddish brown band. An ill defined yellow horizontal band or field (W 0.019) lies below the gray band, and a light red area lies below the yellow field.

1 fragment (66g; MPL 0.10; MPW 0.095) shows a light reddish brown band (W 0.019) abutted by a gray band (W 0.018). The view is divided into 3 fields showing the gray band bracketed by a light red area on one side, and a white area

on the other. A yellow area lies below the light reddish brown band. 1 restored fragment in 6 pieces (66g; MPL 0.124; MPW 0.115) showing from, left to right, a yellow area, a dark reddish brown band (W 0.023), a light red band (W 0.051), and a gray band (W 0.019). 1 restored fragment in 3 pieces (20g), 1 restored fragment in 4 pieces (10g), and 1 fragment (24g) all showing a dark reddish brown horizontal band (0.023-0.025) bracketed by yellow and light red. 9 fragments (26g) show a yellow area next to a horizontal gray band. 7 fragments (38g) show a yellow area next to a horizontal light reddish brown band. 1 restored fragment in 4 pieces (48g; MPL 0.136; MPW 0.062) show a horizontal gray band (W 0.018) bracketed by a white area, and a light red area. 6 fragments (48g) show white and light red regions bordered by light gray horizontal and vertical (perpendicular) lines. 4 fragments (24g) show vague white region next to a horizontal gray band. 79 fragments (314g) show light red next to gray or weak red horizontal band (colors blend where bands overlap).

98.0114.010

92 gray-faced fragments (284g). Largest fragment MPL 0.061, MPW 0.043. Discard

98.0114.011

187 fragments (685g), showing portions of a key pattern in the colors: light green, yellow, gray, reddish-brown and pinkish white. The largest restored fragment is in 23 pieces (172g; MPL 0.294; MPW

0.14), showing, from left to right, a dark reddish brown band, a yellow field (W 0.044) with two reddish-brown bands (each c. W 0.004; separation W 0.006-0.008), a gray band (W 0.018), and a pale yellow field (W 0.053). The yellow field contains an upturned key pattern in reddish-brown (band W 0.005) abutting the gray band. A reddish brown line (W 0.005) runs between the edge of the key pattern and the edge of the field. A reddish-brown band (W 0.018) and a pinkish white region abut the yellow field containing the key pattern.

1 restored fragment in 6 pieces (68g; MPL 0.16; MPW 0.088) shows, from left to right, a pinkish-white region (width unknown), a gray band (W 0.016), and a yellow field (W 0.043) with two reddish brown lines (each W 0.005; separation 0.002-0.003 m). 5 reddish-brown squares (L 0.012; W 0.012; separated by 0.015-0.020 m) abut the reddish-brown band (width unknown). 80 fragments (320g) show portions of these motifs.

98.0114.012

17 fragments (35g) showing gray strokes on a white field. Possibly fragments of the Greek letters related to painted inscription in 98.0114.005. 1 restored fragment in 2 pieces (4g; MPL 0.040; MPW 0.031) possibly showing portions of the Greek letter omega (width of gray brush stroke varies from 0.004 to 0.006 m). 2 fragments have traces of light red, and gray. 13 fragments show only gray and white.

98.0114.013

25 fragments (170g) showing portions of pinkish white, or pale brown, straight and curved bands (W 0.01-0.018). 1 fragment shows portion of a straight gray line abutted by a curved line. Possibly from a volute design.

## 98.0114.014

112 light red fragments (416g) with one fragment showing partial gray border at edge. 216 fragments (640g) showing tonalities of red. 8 fragments show a light red area, with a light red band (W 0.01). A trace of gray border is visible on one fragment. 96 fragments (368g) show tonalities of red.

## 98.0114.015

119 yellow fragments (383g). 2 fragments show pink or white highlights (perhaps to indicate drapery). Largest fragment measures MPL 0.059, MPW 0.043, and Th 0.05-0.09.

## 98.0114.016

9 fragments (100g) showing banded motif. 1 restored corner fragment (24g; MPL 0.041; MPW 0.061) shows a light red band (W 0.043) starting in corner, abutted by a light olive gray band (W 0.018), followed by a pale yellow band or field. Colors blend where bands overlap.

## 98.0114.017

10 fragments (52g) showing a pale yellow band or field, next to a gray band. 1 fragment shows a white band or field, next to a gray band.

## 98.0114.018

896 fragments (2482g) of hard sandy white intonaco. Shades vary from

white to pale brown, to pinkish white.

## 98.0114.019

188 fragments (602g) showing worn reddish brown mottled design.

## 98.0114.020

49 miscellaneous corner fragments (480g). 8 concave corner fragments (66g) showing a vertical yellow band (W 0.05) framing a white field or band. Largest fragment measures 36g, MPL 0.131, MPW 0.038, and Th 0.004-0.008. All may join with plaster *in situ* from bottom of wall. 2 concave corner fragments (76g) showing a vertical light red band (W 0.009) on the corner. A yellow band (W 0.016-0.026) overlaps the light red band on a white field. Red drip marks run through the white area. 1 corner fragment (42g) shows a light red band (W 0.021) on the corner abutted by white and light red areas. 5 corner fragments (42g) showing a vertical light red band (W 0.007) framing a white field. 1 fragment shows a vertical light red area on white background. 6 fragments (52g) show, from left to right, a light red band on the corner (W 0.026-0.036), a gray band (W 0.017), and a pale brown area. 23 corner fragments (144g) showing light red, largest fragment measures, 20g, MPL 0.074, MPW 0.065. 1 convex corner fragment (28g) showing worn red paint on both sides of corner. 1 convex corner fragment (28g) showing white on one side of corner and faded red on other side.

## 98.0114.021

1 restored fragment in 33 pieces

(260g; MPL 0.21; MPW 0.225; Th 0.005) forming part of a human figural scene in pink. Fragments appear to show a bare raised right arm (MPL 0.115 to wrist; MPW 0.025 at wrist; MPW 0.0395 at shoulder). The hand is missing but probably extended away from body. 1 fragment shows portion of a shoulder (MPL 0.059; MPW 0.05) draped in a cloak with fibula at edge (color appears to be a blend of red and yellow. To the left of armpit (0.012 m) is what appears to be the tip and upper portion of a wing (colors used reddish yellow, yellow, and dark gray; MPL 0.105; MPW 0.045). To the right of the figure's hand (0.003 m) is a pink upturned curve (W 0.012; MPW 0.05), possibly a ribbon. Gray lines (W 0.002 W) outline the figure, indicate the fibula, and provide accents on wings.

## 98.0114.022

159 subset fragments to 98.0114.021 (681g), showing pink (flesh tone?) on a white field. 27 fragments show pink bordered by a narrow (c. W 0.002) dark gray band on a white field (possible portions of outlined figure in 98.0114.021). 10 fragments show dark gray, undulating, and circular patterns. 2 fragments show a blend of yellow and pink, with no discernable design.

## 98.0114.023

51 fragments (258g) showing a combination of reddish yellow, yellow, dark gray, and weak red, possibly associated with 98.0114.021. 1 restored fragment (MPL 0.113; MPW 0.076) shows a white, five -

sided design outlined in weak red, with yellow and reddish yellow shading.

## 98.0114.024

4 fragments (14g) showing yellow with dark reddish brown curved lines, and light reddish brown regions. Possibly meant to provide a textured or marbled effect.

## 98.0114.025

17 fragments (42g) showing yellow with red detailing. 1 fragment shows two red parallel lines (W 0.004; separation 0.005 m).

## 98.0114.026

2 fragments (16g) showing red with yellow circles (D c. 0.018).  
\*See Plate A1.

## 98.0114.027

13 fragments (196g) of white-faced plaster with light red and red lines that appear to be drip marks.

## 98.0114.028

89 miscellaneous fragments (40g) showing a white background with portions of dark gray stripes or lines.

## 98.0114.029

1 restored fragment (22g, MPL 0.049; MPW 0.052) showing a light red area next to a gray band (W 0.15), next to a white band or field. A light red band and a gray band

overlap resulting in a darker red area (W 0.004).

## 98.0114.030

46 miscellaneous fragments (198g)

showing a white background with portions of light and dark red (width unknown) stripes or bands.

98.0114.031

1 restored fragment (8g; MPL 0.0521; MPW 0.043) that appear to show portions of the key motif in pinkish gray on a white background. From top to bottom (arbitrary), a colored band (MPW 0.012) is abutted by the upturned "L" shape (W 0.029) with a thin band (W 0.003) running 0.007 m below this motif.

98.0114.032

29 fragments (144g) showing a light red field (W0.052) bordered by a purplish brown area. 1 fragment shows a purplish brown band (W 0.018) bracketed by a light red area (MPW 0.024) and a white area (MPW 0.036).

98.0114.33

1 restored fragment in 5 pieces (58g; MPL 0.096; MPW 0.074) showing a white field (MPW 0.06), a gray band (W0.015), a red band (W 0.011), and a yellow area. 27 additional fragments (127g) most likely subset design of this restored fragment. Most fragments show gray and red. 1 fragment shows red, gray, and traces of yellow. 1 restored fragment in 3 pieces (24 g; MPL 0.061; MPW 0.045) showing an area, a gray band (W 0.0156), and a red area.

98.0114.034

33 fragments (182g) showing yellow background with bands of varying tonalities of red. 6 fragments show same colors as above, with

additional dark gray band (W 0.003-0.013).

98.0114.035

46 miscellaneous brown fragments (106g). 8 fragments show a band of dark brown next to a white region. 1 fragment shows a light grayish-brown band next to a white area.

98.0114.036

5 fragments (36g; MPL 0.055; MPW 0.045) showing a field of light pinkish gray, abutted by a pinkish gray region (W 0.012), next to a thin band of reddish brown (W 0.003), all on a weak red background.

98.0114.37

1 restored fragment in 3 pieces (6 g; MPL 0.061; MPW 0.021) showing a yellow field (MPW 0.011), abutting a gray band (W 0.002), abutting a red band (W 0.002), abutting a dark reddish brown area. Colors blend where they overlap. 5 remaining fragments are a possible subset of above-described design. 2 fragments show red, yellow, gray, and yellow bands of varying widths.

98.0114.038

1 fragment (8g; MPL 0.042; MPW 0.055; Th 0.004) showing a pale yellow band or field (MPW 0.019), abutting a gray band (W 0.018), abutting a white field or band (MPW 0.013). This design is unique to this locus and may have originated elsewhere in room.

98.0114.039

10 fragments (228g) showing a worn yellow field with light red bands, and washes in an

indiscernible design.

98.0114.040

1 restored fragment (<2g; MPL 0.048; MPW 0.028) showing small circular bodies (D 0.005) with dark gray and white centered lobes radiating outwards, on a white field.

\*See Plate A2

98.0114.041

64 fragments (418g) showing bands, or washes of light red, some showing very faint dark gray bands

98.0114.042

38 fragments (110 g) showing possible yellow and gray bands. 1 fragment shows yellow band (W 0.004) on a gray background.

98.0114.043

4 fragments (16g) showing a light red band (W 0.01), next to a white band (W 0.01), next to dark gray band.

98.0114.044

2 fragments (2g) show yellow overlapping with red. Possibly textured or marbled effect.

98.0114.045

5 fragments (86g) showing a red band abutted by a yellow band (W 0.032). 1 fragment shows a yellow band (W 0.032) bracketed by red bands. 1 fragment shows narrow, light red band (W 0.005) running through a yellow field. 3 fragments show portions of these combinations.

98.0114.046

8 fragments (28g) showing a gray area next to a reddish brown, or dark reddish brown area. 3 fragments show a gray band (W0.003) between a dark reddish-brown, and a white area.

98.0114.047

240 miscellaneous fragments (938g) too faded, too dirty, and too small to categorize.  
Discarded.

98.0114.048

1 fragment (28g, MPL 0.083, MPW 0.055) showing a light red field, or a wide band (MPW 0.041; MPL 0.061), framed on one side by an olive green area (MPW 0.005), and yellow area (MPW 0.01).

#### **Bucket #98.0122**

##### **Locus 14**

##### **Square 04 (Room A)**

98.0122.001

40 fragments (276g), with the largest restored fragment in 8 pieces (MPL 0.175; MPW 0.10) showing a key pattern similar to motif in 98.0114.011. Showing, from top to bottom, a dark gray band with an upturned purplish brown key pattern extending downward (MPL 0.004; MPW 0.025; Th 0.005-0.01 m). The design is on a white background (colors are very faded). Key pattern floats above a narrow purplish-gray band (W 0.004; separation 0.005 m) above a white field (W 0.005), abutted by a wide purplish-brown band (W 0.02) and a white field. 38 fragments show portions of this motif.

\*See Plate A3

98.0122.002

38 fragments (78g) showing motif similar to 98.0114.003, and 98.0114.004.

Largest restored fragment in 2 pieces (MPL 0.072; MPW 0.035) shows, from top to bottom (arbitrary), a white band, a dark gray band (W 0.018), and a yellow field containing 2 narrow reddish brown bands (each W 0.003; separation 0.005 m). 36 fragments show portions of this motif.

98.0122.003

20 fragments (381g), largest restored fragment in 6 pieces (MPL 0.12; MPW 0.07) showing, from top to bottom, a light red band, a dark gray band (W 0.025), and a white band. 1 fragment shows a red and black banded corner.

98.0122.004

35 fragments (170g) possibly portions of 98.0122.003, showing a light red band next to a dark gray band (widths unknown). 1 convex corner piece showing light red on corner.

98.0122.005

53 white fragments (278g) possibly belonging to 98.0122.007.

98.0122.006

77 fragments (80g) showing a yellow wash (very faded). Largest restored fragment in 7 pieces (MPL 0.0185; MPW 0.11) shows, in addition to yellow, a dark gray portion at edge.

98.0122.007

39 fragments (358g) all showing a white field with dark-gray banding at edges and /or what appears to be

dark gray washes on portions of fragments.

98.0122.008

3 fragments (82g) showing a white field. 2 fragments with possible dark-gray volute pattern (W 0.01) similar to 98.0114.001, 98.0114.002, and 98.0114.013. 1 fragment shows a white field with thin (W 0.002) dark gray scrolling (arabesque).

\*See Plate A4

98.0122.009

71 fragments (200g) showing pink. May be related to motif in 98.0114.008, representing portions of a human body. 1 convex corner fragment.

98.0122.010

67 light red fragments (290g). Includes 2 concave corner fragments.

98.0122.011

9 fragments (26g) showing pink with thin dark-gray outline (W 0.002) and a white field. 1 fragment shows a white field containing two narrow pink lines (W 0.0015). Possibly related to fragments in 98.0114.008.

98.0122.012

2 fragments (10g) showing a yellow and white background with red and gray bands (W 0.002-0.004). Similar shading is used in the birdbath motif.

98.0122.013

68 miscellaneous red fragments (76g). 1 possible convex corner fragment (40g; MPL 0.062; MPW 0.053) with a light red area

beginning 0.015-0.025 m from presumed corner (white on corner). 1 fragment (24g) shows a red band (MPW 0.019), overlapped by a perpendicular pink band (MPW 0.029) that frames a white field (MPL0.075; MPW 0.050). Discard.

98.0122.014

1 fragment (30g; MPL 0.041; MPW 0.032) showing, from top to bottom, a pink field/band (MPL 0.044), a brown band (Th 0.02), a pink band (Th 0.007), and a white field/band (MPW 0.022). Discard.

98.0122.015

1 fragment (10g) showing, from, top to bottom, a reddish brown band (MPW 0.020), a yellow band (Th 0.035), and a pinkish band/field (MPW 0.005). Discard.

98.0122.016

36 miscellaneous fragments (208g) with traces of red, brown or yellow. Discard.

98.0122.017

40 fragments (1008g) which fell off east face of arch springer 02 during excavation (originally located on bottom meter of the arch springer). Fragments should join together. Time constraints have not allowed all joins to be found. The largest restored fragment in 3 pieces (356g; MPL 0.276; MPW 0.152) shows a red band (MPW 0.08), edged by a gray band (W 0.023), and framing a white area (MPW 0.018). 1 restored fragment in 5 pieces (98g; MPW 0.042; MPL 0.151) shows a red band (MPL 0.044) above a white band/field (MPL 0.054). (Top and bottom indicated by a drip mark from the red on the white.) 1

convex corner fragment (24g; MPL 0.05; MPW 0.05) shows red on one face and white or yellow on other. Remaining fragments are white, red or a combination of red, white and gray.

### Bucket # 98.0124

#### Locus 16

#### Square 04

98.0124.001

188 fragments (2956g) with largest fragment in 3 pieces (MPL 19.5; MPW 14.5). 1 corner fragment shows from top to bottom, a white field (W unknown), a dark gray band (W 0.02), and a light red band (W 0.04) terminating in a concave corner.

98.0124.002

1 restored fragment in 42 pieces (297g; MPL 0.25; MPW 0.204) showing portion of a nude male trunk and muscular left arm. The figure is painted in pink and outlined in gray against a white background. The forearm is wide (W 0.061) compared to the upper arm (W 0.044). Instead of a hand or fingers the arm ends in 3 pink stripes (W 0.005; L 0.045). The figure's nipple area (painted gray) is elongated and overly large (L 0.044 x W 0.024). To the right of the arm (0.085 m) is the edge of what appears to be a circle/volute in red and gray (MPL 0.015; MPW 0.005). This may be part of a mythical scene. Note that the figure's flesh tone is painted in pink, indicating a non-local skin coloring, or a scene reproduced from a copy-book (body MPW 0.066; MPL 0.235; arm and finger MPW 0.061; MPL 0.24).

98.0124.003

1 restored fragment in 4 pieces (48g) showing the lateral view of a right hand (thumb at bottom, fingers together at top). The hand is painted in pink and outlined in gray on a white field (hand MPL 0.075; MPW 0.038; finger W 0.01; thumb MPW 0.012). Below the palm of the hand is an indefinable patch of light red color. Above the hand (0.01 m) is a portion of another (unidentified) body part in pink with a gray outline (MPL 0.04; MPW 0.036).

98.0124.004

Indeterminable restored fragment in 3 pieces (58g; MPL 0.105; MPW 0.079) showing a nude human figure painted in pink and red, outlined in gray, and on a white field. The fragment shows a tapering limb (arm?, MPW = 0.04 at top, 0.026 at bottom) next to a red curve (MPW = 0.046, MPL = 0.043).

98.0124.005

1 restored fragment in 5 pieces (50g; MPL 0.132; MPW 0.063) showing a pink area outlined by a gray curve, on a white field. Probably part of a circle (W 0.01; D 0.21).

98.0124.006

1 restored fragment in 5 pieces (38g; MPL 0.12; MPW 0.059) showing a pink fillet with 2 gray ribbons hanging down depicted on a white field (fillet W 0.003; ribbon W 0.001; ribbon MPL 0.059, fillet D 0.27).

98.0124.007

1 restored fragment in 26 pieces (180g; MPL 0.078; MPW 0.149) showing a long pink stripe (L 0.12; MPW 0.013) below a tapering pink

region (MPL 0.04; W 0.065 at top; W 0.025 at bottom) outlined in a thin gray band (W 0.001) on a white field. Possibly portion of a human figure.

98.0124.008

97 fragments (290g) possibly portions of the human figural motif. 42 fragments (110g) are solid pink. The rest are pink and white, with gray shading. 10 fragments also show light red areas. Kept.

98.0124.009

62 miscellaneous gray fragments (288g). 8 fragments show thin curved lines (W 0.003) on a white field. 2 fragments show 2 ellipses with the bottom broken away so that they resemble rabbit ears (fragment 1 ellipse MPL 0.036; MPW 0.001 and 0.004). Background and inside of ellipses are white. 6 fragments kept.

\*See Plate A5

98.0124.010

953 fragments (3490g) of hard, sandy white wall plaster with thin white intonaco.

98.0124.011

1 restored fragment in 6 pieces (66g) showing a red drip mark. Discard.

98.0124.12

Approximately 140 fragments from a banded motif. 1 restored corner fragment in three pieces (MPL 0.105; MPW 0.09; Th 0.007; 88g) showing bands in red (W 0.035), and gray (W 0.025) forming a right angle corner that borders a white field or panel (W unknown).

\*See Plate A6

98.0124.13

1 restored fragment in two pieces (MPW 0.14; MPL 0.13; Th 0.005-0.010; 160g) showing same banding motif as 98.0124.12 but with wider band widths: red corner band (w 0.090), gray band (w 0.030), white panel width unknown.

98.0124.14

42 fragments of light red ( salmon color? ) matching to pattern and color of those from 98.0124.001. 3 fragments show portions of red and black banding (w 0.020) bordering a white field. 4 fragments are light red corner pieces. Corner fragments reach a height of 0.430m when combined with those from 98.0124.001. Discard.

98.0124.15

19 fragments (124g) showing portions of a yellow field, red lines and black banding. Largest fragment (Th 0.005; 34g; MPL 0.080; MPW 0.060;) shows (bottom to top) a thin red line (w 0.003) in a yellow field (width unknown). A dark gray band (w 0.020) rests 0.010m above the red line, and borders a white field or panel that contains a curved dark gray band (w 0.010). The area inside of the curved black band appears as a light pink or yellow color. Kept for photo. 4 fragments show two parallel red lines separated by 0.007m on the yellow field. Kept.

\*See Plate A7

98.0124.16

24 fragments ( 330g ) showing portions of a red and yellow banding motif. One restored fragment (Th 0.005; MPL 0.103; MPW 0.050;) shows a yellow band (w 0.040 ) bracketed by red bands ( width unknown ). Discard.

98.0124.17

96 fragments (486g) to a possible panel showing mostly yellow. Some fragments also show washes of red to reddish-brown color. Discard.

98.0124.18

4 fragments (106g) show a light pink design outlined in red on a white field. There is some detailing in gray. The largest fragment (Th 0.007; MPL 0.085; MPW 0.065) shows pink vertical strokes outlined in dark red, possibly representing drapery.

98.0124.19

65 miscellaneous fragments (392g) of pink, and pink with white design. 1 restored fragment in 6 pieces (50g; Th 0.005; MPL 0,098; MPW 0,095) shows a red field (preserved to w 0.053) next to a white field (preserved to 0.043). Discard.

98.0124.20

203 miscellaneous fragments (1038g), showing white with varying tonalities of red. Discard.

98.0124.21

21 fragments (12g) showing light to dark red and yellow, possibly part of a figural design. Discard.

98.0124.21

26 miscellaneous gray and white fragments (100g). Discard.

98.0124.23

142 white fragments (578g), with one convex corner fragment indicating original location on arch springer. Discard.

**Bucket # 98.0180**

**Locus 15**

**Square 05**

98.0180.001

61 fragments, including 2 concave, and 4 convex corner fragments (394g; Th. varies 0.015 to 0.003), showing light red, and some with dark red wash. 3 fragments show red and yellow banding (W unknown). 1 fragment shows red, black, and white banding (black band overlaps with red). Discard.

98.0180.002

75 fragments (412g) of gray color -- possibly from soot. 1 fragment shows white and black bands (width unknown). Discard.

98.0180.003

46 fragments (114g; Th 0.003), similar color to 98.0180.002-- with additional yellow wash. Discard.

**Bucket #98.0189**

**Locus 17**

**Square 04 (Room A)**

98.0189.001

23 fragments (110g) showing a white (possibly originally yellow) field with 2 parallel pink stripes. All fragments show this motif or portions of it. Pink stripe width

varies between 0.003 m to 0.004 m. The distance between the two parallel stripes varies from 0.003 m to 0.01 m. These stripes are possibly drip marks. Discard.

98.0189.002

11 fragments (34g; Th 0.005) showing a thin red stripe (W 0.002 - 0.004) on a white field. Stripes are possibly drip marks. Discard.

98.0189.003

33 fragments (112g; Th 0.003 - 0.008) showing yellow color. Discard.

98.0189.004

35 fragments (174g; Th 0.003 - 0.007) showing pink and pink with white, possibly from a figural scene.

98.0189.005

31 fragments (184g; Th 0.004 - 0.010) showing faded red and black color with no discernable design. Possibly part of the banded border motif. Discard.

98.0189.006

62 fragments (292g; Th 0.003 - 0.01) showing red color. Fragments include 5 concave corner pieces, all together measuring 0.195 m in height. 3 convex corner fragments reaching a height of 0.185 m.

98.0189.007

194 fragments (940g; Th 0.003 - 0.015) showing off white or yellow color. Dirt affixed to the plaster makes it difficult to determine the exact color.

98.0189.008

154 fragments (530g; Th 0.005). Miscellaneous fragments show

white with some washes of dark gray. The motif is indiscernible. Discard.

98.0189.009

27 fragments (146g). The largest restored fragment in 4 pieces (28g; Th 0.005; MPL 0.075; MPW 0.070) shows a white field below a curving thin gray band (W 0.002) which tapers to meet with a light red band (W 0.007 - 0.009). The red band sits below a yellow field. All remaining fragments show portions of this motif. Discard.

98.0189.010

2 fragments (20g; Th 0.006) showing a white field (MPL 0.049) against a black band (W 0.013) with a red area (width unknown) below the black band. Discard.

98.0189.011

6 fragments (40g; Th 0.005) showing a yellow field with a light red band (W 0.010) parallel (D 0.010) to a dark red band (W 0.007) that is outlined in gray. Motif possibly belongs to border design--all fragments show portions of this design. Discard.

98.0189.012

2 fragments (54g; Th 0.005) showing yellow with red wash. No discernable design. Discard.

98.0189.013

1 fragment of purple sandstone (32g) faced to form a 90-degree angle with 2 straight convex corner faces. One face is 0.018 L x 0.033 W and has a thin layer of wall plaster adhering (Th 0.001 - 0.002) painted red. Discard.

## Bucket #98.0346

### Locus 20

#### Square 04 (Room A)

98.0346.001

465 miscellaneous white and off-white fragments (2616g). Discard.

98.0346.002

1 restored fragment in 4 pieces (34g) showing a central white field bordered on the left by a dark red band (MPW 0.014), and on bottom by a yellow band (MPW 0.038). Red and yellow bands form a right angle.

\*See Plate A8

98.0346.003

1 restored fragment in 14 pieces (308g; Th 0.003-0.007; MPL 0.254; MPW 0.172) shows a thick red orthogonal border (w 0.058), with an interior black band (w 0.022) framing a white field. Orientation from top to bottom is indicated by dark gray drip marks on the red band. Kept for drawing. A small drill hole in the plaster abuts the black band--most likely made in the original wet plaster, possibly for a tack or nail.

98.0346.004

3 fragments (20g; Th 0.004; MPW 0.071; MPH 0.044) showing the bottom right corner of the base of birdbath motif (fell off the wall during excavation). Fragments show base as mottled yellow and red color with evidence that red was applied first. The birdbath base design is on a white field (w 0.020) within a gray frame. Kept for drawing.

98.0346.005

25 fragments (170g; Th 0.004) showing the edge of a red band on a white field. The largest restored fragment in 6 pieces (72g; Th 0.004) shows a partial dark red band (MPW 0.016) and a white field (MPW 0.092). Possibly associated with fragments from 98.0346.002. Discard.

98.0346.006

56 fragments (232g; Th 0.003-0.010) of miscellaneous dark red. Discard.

98.0346.007

4 convex corner fragments (276g; Th 0.005-0.010; MPH 0.250). Orientation is indicated by red drip marks. From top to bottom, a red field with dark gray color is visible near break of fragment (MPL 0.130 red field). Drip marks extend over the white field below (MPW 0.103). Arch springer fragments. Discard.

98.0346.008

2 fragments (72g; Th 0.007) showing an indeterminable motif in worn colors, possible originally pink with yellow. Encrusted dirt and wear results in color to appear brown.

98.0346.009

1 fragment restored in 4 pieces (120g; Th 0.010; MPL 0.130; MPW 0.075) shows (top to bottom--arbitrary), a worn pink area (MPW 0.030), and a worn red band (MPW 0.040) that appears to extend to bottom of fragment. Heavy wear has removed much of the color, leaving only traces of red (MPW 0.050). Discard.

98.0346.010

1 fragment (34g; Th 0.006; MPL 0.081; MPW 0.06) shows (top to bottom--arbitrary) a white band (MPW 0.030), a gray band (W 0.022), and a red area (MPW 0.016). Possible joins with 98.0346.003. 1 restored fragment in 8 pieces shows the same banded motif (MPW 0.058; MPL 0.134; 60g; Th 0.007). Possibly a corner fragment with red band (W 0.023), dark gray band (W 0.024), and a white band/field (with unknown). 24 miscellaneous fragments show portions of this motif (102g).

98.0346.011

7 fragments (18g) showing thin dark gray bands (W 0.003-0.004) on a white field. The bands may possibly be letter fragments. 1 piece shows a MPH 0.025 x 0.25 of dark gray letter fragment, possibly the Greek letter Beta (capital or lower case ?) Kept.

98.0346.012

30 fragments, 18 of which form a concave corner framed with a thick red band (0.051 W) edged on the inside by a thinner brown band (0.006 - 0.016W). Bands frame at least two horizontal fields. Upper field shows one key design (MPL 0.042; MPW 0.005 at stem, and 0.015 W and Th 0.012 at head) on a green background. 0.01m separation between keys and 0.008 m between brown band and first key. A reddish-brown area (MPW 0.004) sits below key design. Lower horizontal field shows yellow background with a red horizontal band (W 0.030) abutted by four red squares unevenly

spaced along edge of band at ca. 0.013 - 0.017 apart, and measuring 0.08W and 0.015 L. Two thin free-hand parallel lines (W 0.003; separation 0.003 - 0.006 m) run below the red band. A gray band (0.016 w) runs 0.016 m below last parallel band.

All remaining fragments show portions from this motif.

\*See Plate A9

98.0346.013

72 fragments showing shades ranging from dark red to pink (296g) possibly associated with banding motif of a frame, as in 98.0346.012. 1 piece is from a concave corner fragment.

98.0346.014

3 fragments (18g) showing a gray band (w 0.024) bracketed by traces of red and yellow color. Discard.

98.0346.015

13 fragments (118g) showing both red and gray together. 1 concave corner fragment with a red band (w 0.055) at corner abutted by light gray band (MPW 0.012). Discard.

98.0346.016

1 restored fragment in 4 pieces (54g) showing a yellow band (0.040W) bracketed by both a white band/field (MPW 0.031), and a very worn dark gray band (MPW 0.013). Two additional fragments appear to show a light pink band overlapping a gray band at outermost edge. Discard.

98.0346.017

30 fragments (150g) showing yellow or a combination of yellow and white abutting bands. Discard.

98.0346.018

7 fragments showing an olive green mottled motif (marble effect) with dark green bands. Possibly an attempt to imitate precious stones. The largest restored fragment is in 4 pieces (28g; Th 0.005; MPL 0.085; MPW 0.038) showing an olive green modelled area (MPL 0.075). This area abuts a yellow field (MPL 0.028) mottled with shades of light pink. Kept.

98.0346.019

11 fragments (88g) showing undeterminable pink, light gray and white design. Discard.

98.0346.020

88 miscellaneous fragments (204g), too decayed or worn to be useful. Discard.

98.0346.021

22 white fragments (178g; Th 0.005) from the east face of L04. 3 fragments (44g; Th 0.007) show red areas on white with no discernible motif. Discard.

**Bucket # 98.0352**

**Locus 19**

**Square 04 (Room A)**

(Many pieces from this locus were white washed)

98.0352.001

3 fragments (52g; Th 0.005), with 1 restored fragment in 2 pieces (44g; Th 0.005; MPL 0.085; MPW 0.060) showing a red band (MPW 0.025), a light gray band (MPW 0.015) and a

yellow band/field (MPW 0.035).  
Discard.

98.0352.002

18 fragments (136g; Th 0.005-0.010) showing portions of red of varying tonalities, and black fields or bands. The largest fragment shows a red field (MPW 0.045) and a black field (MPW 0.015). Discard.

98.0352.003

14 miscellaneous pink fragments (56g). Discard.

98.0352.004

106 fragments (220g; Th 0.005-0.010) all showing tonalities of red and possibly associated with banding/field motif in 98.0352.002. Discard.

98.0352.005

8 fragments (68g; Th 0.003-0.010) showing a red area (MPW 0.005), a gray band (W 0.007) and a white field (MPW 0.037). Discard.

98.0352.006

1 restored fragment in 3 pieces (106g; Th 0.007; MPL 0.125; MPW 0.085) showing red lines (W 0.005) on an off-white field. Distance between the lines ca. 0.020-0.025 m. Possibly drip marks. Kept.

98.0352.007

172 miscellaneous fragments showing varying tonalities of white (600g; Th 0.002-0.012).

98.0352.008

1 fragment (42g; Th 0.035; MPW 0.045; MPL 0.0374) appears to show

the Greek letters omicron and lambda in gray on a white background. To the right of the lambda (0.003 m) are traces of yellow that may demark the edge of the lettering and indicate lambda as the last letter. The lambda is carefully rendered in bands 0.002-0.003 m thick (MPL 0.02; W 0.018). The omicron is less carefully rendered and the outline varies in width from 0.003 m on left to 0.008 m on the right (MPW 0.014; MPL 0.026). This may be the label for the scene that appears in 98.0352.009. The thickness of the plaster is unusual in comparison to the rest of the extant fresco. Kept.

98.0352.009

56 fragments (164g), possibly all from the same scene. Fragments show traces of yellow, red, gray and white. The yellow appears to form a human figure with red detailing or marbling, and the gray forms a field (NB: the gray curves around and abuts the yellow). The white areas are occasionally visible next to the gray or yellow. 1 fragment shows traces of pink and gray on the white. The yellow and red shading is similar to the human face found in square 09. All fragments had been whitewashed. 2 restored fragments kept.

98.0352.010

1 fragment (6g; MPL 0.041; MPW 0.024; Th 0.006) shows a yellow band (W 0.025) bracketed by a white area. Discard.

98.0352.011

9 fragments (44g) showing traces of thin gray/brown lines (W 0.003) on

a white field. Most lines are imprecisely drawn, possibly part of lettering from 98.0352.008. Discard.

98.0352.012

3 fragments (24g) showing traces of green (possible drip mark) on a white background (MPL 0.044; W 0.006). Traces of strong light brown mortar with small red (pottery?) inclusions adhere to the backside of the plaster suggesting it came from the arch or ceiling. Discard.

98.0352.0013

5 convex corner fragments (96g) all showing red extending 0.018 to 0.033 m around the corner. 1 fragment has a white area (MPW 0.068) to the left of the red. The angle of the corner is slightly greater than 90 degrees. The underside of the plaster is very irregular as it reflects the shape of the stones. Discard.

98.0352.014

1 fragment of hard sandy off white plaster (Th 0.006) with a dark red painted surface. The plaster adheres to a very hard, lightweight mortar with lime, crushed pottery, and small stone inclusions. The mortar is roughly wedge-shaped (Th 0.025 at top and 0.012 Th at bottom) suggesting it was applied between two voussoirs. The mortar is MPL 0.079 and MPW 0.059 and 90g. The red has been whitewashed showing that the arches were whitewashed in the renovation of this room. Kept.

**Bucket # 98.0408**

**Locus 36**

**Square 04 (Room A)**

98.0408.001

1 restored fragment in 30 pieces (MPL 0.027; MPW 0.0277) showing a white field (MPW 0.0214; MPL 0.0271) framed by a light gray band (W 0.019), and a pink band (MPW 0.045). Kept.

98.0408.002

295 white fragments (1012g; Th 0.006). Discard.

98.0408.003

145 fragments (442g) showing tonalities of red. Possibly from band motif. Discard.

98.0408.004

4 fragments (118g) showing portions of a banding motif. Red band (W 0.06) starts at concave corner and moves out to abut a worn brown band (W 0.018-0.018) which abuts a yellow band (MPW 0.025). 1 restored fragment shows a brown band framing a yellow field on two sides and resting on a red on a red area. It is not possible to determine if this is an orthogonal or a transecting brown band. Kept. \*See Plate A10

98.0408.005

23 fragments (84g) showing traces of a yellow band abutted by a parallel brown band. Possibly associated with motif in 98.0408.004. Discard.

98.0408.006

40 fragments (398g) showing tonalities of red. Two pieces show a red band (W 0.058-0.061) beginning at a convex corner and extending inward. 1 restored fragment (104g;

MPL 0.0223; MPW 0.064) shows a thick light red/pink band (W 0.042) abutted by a parallel, and worn brown field/band (MPW 0.008). Possibly associated with 98.0408.001.

98.0408.007

6 fragments 54g showing yellow, pink, gray and dark red marbling. Discard.

98.0408.008

15 fragments (140g) with 1 restored fragment in 7 pieces (126g; MPL 0.222; MPW 0.10) showing banding motif in red (MPW 0.041), yellow (W 0.036), black (W 0.016) and white (MPW 0.016). Two red parallel lines (W 0.004; separated by 0.003 m) transect the yellow band. An orthogonal red band abuts the black band. Kept.

98.0408.009

31 fragments (164g) showing gray volutes/tendrils on a white field, framed by a thick red band, and outlined on the interior by a thin gray band. 1 restored fragment in three pieces (54g; MPW 0.073; MPL 0.101) shows, from bottom to top, a red band (MPW 0.035), a gray band (W 0.009), and a white field (MPW 0.031) containing a gray concave volute or tendril design (W 0.005) resting 0.002 m above gray border. Kept.

98.0408.010

1 restored fragment in 4 pieces (46g; MPW 0.064; MPL 0.076) showing a pale yellow field (MPW 0.049; MPL 0.073) bordered by two orthogonal red bands (top MPW 0.014; side MPW 0.017). The field shows horizontal and vertical thin pink

lines (W 0.002). This is a new motif to E1254. Kept.

98.0408.011

1 fragment (<1g; MPW 0.018; MPL 0.016) showing a yellow area (MPW 0.007) bordered by a thin red line (W 0.001) on a white field (MPW 0.009). Discard.

**Bucket # 98.0409**

**Locus 37**

**Square 04 (Room A)**

98.0409.001

24 miscellaneous white fragments (54g; Th 0.002-0.005). Discard.

98.0409.002

15 fragments with 1 restored fragment in 6 pieces (Th 0.005-0.010; MPW 0.210; MPL 0.21). Fragments show a border motif forming a right angle consisting of a thick dark red band (W 0.055) lined on inner edge by a thin gray band (MPW 0.010) framing a white field (MPW 0.160). All remaining fragments show portions of this motif. Discard.

98.0409.003

25 fragments including one concave corner fragment (48g) showing tonalities of red. Discard.

98.0409.004

7 fragments (24g) showing an undeterminable design of a white field with thin red lines (W 0.0015). Some areas show a pink/yellow wash. Discard.

98.0409.005

6 fragments (6g) show yellow with pink marbling. Discard.

98.0409.006

1 fragment (12g; MPL 0.04; MPW 0.041) showing a brown band (W 0.022) bracketed by a yellow band (MPW 0.012) and a dark red band (MPW 0.010). Discard.

98.0409.007

4 fragments (12g) showing yellow with a gray wash. Discard.

**Bucket #98.0447**

**Locus 02**

**Square 09**

98.0447.001

Human Face: 1 fragment (30g, MPL 0.057; MPW 0.044) showing a human face in profile (facing right). The skin tone and contours are thoughtfully rendered using a combination of pink, light red and orange-pink colors. A thin gray band (W < 0.001) outlines the neck, ear, chin and hair. A hairline or scarf is indicated and painted in similar colors as the face. Eye, mouth, nose, ear, chin, neck, and cheeks are all indicated. The nose appears bulbous but this may be a result of damage on the fragment at the edge of the image. Face and neck MPL 0.057, MPW 0.033. Background white.

98.0447.002

Foot: 1 fragment (18g; MPL 0.052; MPW 0.037) showing the lower portion of a robed figure with long humped slipper. Robe and slipper are depicted in yellow with a red vertical detail line 0.002 m from left edge of the robe. The slipper is in profile (turned left). Person MPL

0.035; robe MPW 0.02; slipper length 0.018; slipper width at hump 0.006 m. 2 curved gray bands (MPW 0.013), one below the figure, and one to the left, may be portions of volutes.

**Bucket #98.0524**

**Locus 15**

**Square 04**

Bucket 98.0524.001

Face: 1 fragment (56g; MPW 0.072; MPL 0.054) showing a frontal image of a human face on a white background. The interior of the face is depicted in light pink with yellowish pink shading along the sides. The face is outlined in light red and gray (W 0.001 - 0.0035). Light gray shading renders the upper portions of the eyes with light red demarking the bottom surface of the eye. There is the hint of a vertical nose rendered by shading. No mouth. Face MPW 0.045; MPL 0.052.

**Bucket #98.0526**

**Locus 41 (KLEIW)**

**Square 04 (Room A)**

98.0526.001

28 white-faced fragments (216g). Discard.

98.0526.002

116 fragments (142g) showing similar shadings of pink and white as from the robe in the KLEIW motif. Kept.

98.0526.003

23 fragments showing white fields with gray lines (W 0.002-0.010), possibly portions from inscription or volute motif. 1 large fragment (26g; Th 0.002; MPL 0.094; MPW

0.069) shows two abutting volutes consisting of two outer spirals with edge of inner spiral (or center point of volute). Kept.

\*See Plate A11

98.0526.004

11 fragments (106g) showing banding motif in black, red, and brown. Largest fragment (MPW 0.057; MPL 0.060; Th 0.007; 28g) shows from top to bottom: red field/band (MPW 0.018), brown field (W 0.020), red band (W 0.013), black field/band (MPW 0.004). Remaining fragments show like banding in different combinations. Kept.

98.0526.005

6 fragments (26g) showing dark gray faced plaster. Discard.

98.0526.006

9 fragments (36g) of red-faced plaster. Discard.

98.0526.007

1 fragment (30g; Th 0.005-0.008; MPW 0.055; MPL 0.075) showing a white or yellow field (color difficult to determine due to dirt). A dark gray band (W 0.015) abutted by a reddish-brown line appear in this field (W 0.004). Sketched in handwritten notes. Discard.

98.0526.008

2 fragments (22g) showing a dark gray band (W 0.010) bracketed by a red band (MPW 0.025), and white field (MPW 0.015). Discard.

98.0526.009

12 fragments (32g) showing a green band abutted by parallel gray bands. Discard.

98.0526.010

4 fragments (12g) showing a red band abutted by a black band. Discard.

98.0526.011

7 fragments (22g) showing a yellow band abutted by a parallel dark gray band. 1 fragment shows a dark gray band (W 0.022) above a white field. Discard.

98.0526.012

1 restored fragment in 2 pieces (16g; Th 0.005-0.007; MPL 0.06; MPW 0.043) showing a light red band (MPW 0.018) edged by a dark red band (W 0.015) abutting a white field or band (MPW 0.014). Discard.

98.0526.013

27 fragments (172g) showing yellow, white, pink and gray marbling. 1 piece shows red painted otop of the yellow. Discard.

98.0526.014

1 restored fragment in 3 pieces (42g; Th 0.004; MPL 0.091; MPW 0.068) showing, from left to right, a white field/band (MPW 0.023, a brown band (W 0.02) and a yellow band/field (MPW 0.022). Discard.

98.0526.015

1 fragment (6g; MPL 0.036; MPW 0.031) showing from left to right, a brown band (MPW 0.018), gray line (W 0.001) and a light brown band (MPW 0.010). Discard.

98.0526.016

60 fragments (174g), all of which are too small or eroded to interpret. Discard.

98.0526.017

1 restored fragment in 3 pieces (22g; Th 0.005; MPL 0.067; MPW 0.083) showing a yellow band (W 0.018) framing a green field on bottom and right, with a white field (MPW 0.031) below the yellow. Draw.

98.0526.018

1 fragment (12g; Th 0.004; MPL 0.055; MPW 0.042) shows a green field (MPW 0.027), a black orthogonal border (W 0.015), and a yellow or brown field (W unknown). Kept.

\*See Plate A12

98.0526.019

6 fragments (20g) showing part of a geometric motif in red, yellow, and olive green. Motif is indeterminable. Kept.

**Bucket # 98.0537**

**Locus 43**

**Square 04 (Room A)**

98.0537.001

97 fragments (336g) showing reddish-brown design, possibly associated with banding motif seen in 98.0526.004. Discard.

98.0537.002

1 restored fragment in 8 pieces (124g; Th 0.07; MPL 0.15; MPW 0.152) showing a white field (MPL 0.15; MPW 0.07) edged by a pinkish-brown band (MPL 0.15; MPW 0.085). Discard.

98.0537.003

1 restored fragment in 7 pieces (136g; MPL 0.175; MPW 0.132) showing a white field (MPW 0.095) edged by a dark red band (MPW 0.023). Discard.

98.0537.004

162 dark red fragments (572g). Discard.

98.0537.005

50 fragments (320g) showing pink streaks on a white background. Possibly from human figure design or part of the KLEIW scene (98.0114.005)—although there is no gray detailing. Discard.

98.0537.006

230 miscellaneous indeterminable fragments (786g). Discard.

98.0537.007

23 fragments (324g) showing gray and pink marbling. Discard.

98.0537.008

16 fragments (264g) showing portions of red and gray bands framing a yellow interior. 1 restored fragment in 3 pieces (52g; MPL 0.15; MPW 0.073) shows from left to right, red (MPW 0.038), black (W 0.02), and yellow (MPW 0.012). Discard.

98.0537.009

430 fragments (1790g) of various white shading. Discard.

98.0537.010

Miscellaneous yellow, and yellow and white design. Some pieces show an indeterminable pink and gray design (336g). Discard.

98.0537.011

1 restored fragment in 2 pieces (88g; MPW 0.113; MPL 0.105) showing a portion of a vertical green rectangle (W 0.053; MPL 0.08). The extant portion of the rectangle is framed by a black band (W 0.002). The black band is abutted on one side by a yellow field (MPW 0.006), and on the remaining sides by a green field showing red over-paint in some areas. Kept.

\*See Plate A13

98.0537.012

1 fragment (18g; MPL 0.07; MPW 0.085) showing, from top to bottom, a yellow field with brown over-paint (MPL 0.008), a black band (W 0.007), a yellow field (W 0.017) showing traces of brown over-paint, and a black band (W unknown) framing a white rectangular field (W 0.027; MPL 0.03). Possibly associated with 98.0537.011, where yellow borders black band. Kept.

98.0537.013

12 fragments (36g) showing green with traces of black banding. Possibly associated with 98.0537.011. Discard.

98.0537.014

14 fragments (224g) showing portions of banding motif in brown, black, yellow, and white. 1 restored fragment (104g; MPW 0.134; MPL 0.126; Th 0.007) shows, from left to right, a white band (MPW 0.09), a brown band (W 0.021); a yellow band (W 0.033); a brown band (W 0.014); a black band (W 0.016); and a reddish-brown

band (MPW 0.042). This motif is similar to 98.0526.004. Kept.

98.0537.015

1 fragment (48g; MPL 0.067; MPW 0.064) showing 2 parallel black lines (W 0.006) separated by a width of 0.015 m, on a yellow-brown marbled background. Discard.

98.0537.016

1 restored fragment in 4 pieces (44g; MPW 0.086; MPL 0.093) showing a portion of 98.0114.011 (the "Gap Tooth" motif) in brown, yellow and white. The fragment shows, from left to right, a white field (MPW 0.03), a brown band (W 0.02); a yellow band (MPW 0.029), and two small brown rectangles (L 0.015 x W 0.01) abutting the brown band (separated by 0.02 m). To the right of the brown band are two parallel brown lines (W 0.005; separated by 0.004 m). Kept.

98.0537.017

2 fragments (6g) showing portions of a curved red line (W 0.001) on a white background. Discard.

98.0537.018

1 fragment in 2 pieces (8g; Th 0.005; MPL 0.04; MPW 0.029) showing a white field with traces of green and undulating red design with black arcing outlines extending over the red. Kept.

98.0537.019

3 fragments (12g) showing a white field with a creamy yellow wash abutted by a light pinkish-brown line (W 0.004). The design is indeterminate. Discard.

98.0537.020

1 restored fragment in 5 pieces (166g; Th 0.006; MPL 0.162; MPW 0.140) showing polygonal banded design. From right to left (inside polygon moving out) is a yellow band (MPW 0.02), a brown band (W 0.022), a white band (W 0.025), a red (or brown) band (W 0.023), a pink band (W 0.01), a red band (W 0.003), and pink band (W 0.025). Colors are extremely worn. Kept.

Processed Fresco 1996

**Bucket #96.0071.**

**Locus 01**—collapsed over buckets 96.0071, 96.0072, 96.0075, 96.0076, 96.0078, 96.0096, 96.0501, 96.0503, 96.0510.

96.0071.001

98 fragments (1468g; including 6 restored fragments) showing portions of a red and gray banded frame edging a white field. 1 restored fragment in 6 pieces (64g; MPW 0.077; MPL 0.108; Th 0.006) shows, from left to right, a red band (W 0.054) starting in a concave corner, a gray band (W 0.01), and a white field (MPW 0.015). 1 restored fragment shows a white field (MPW 0.192; MPL 0.160) and a gray band with two holes going through the plaster (D 0.005; 0.003). Holes similar to these have been noted on other fragments and were possibly made when the plaster was still wet, as there is no cracking in the surrounding plaster (they also may be imprints of small stones trapped in the plaster). It is

interesting to note that the holes thus far are all located along the painted frames. Discard.

96.0071.002

59 red fragments (898g). 8 fragments are concave corner pieces (Th 0.007-0.019). 1 fragment is a convex corner piece showing one dark red, and one light red surface. Discard.

96.0071.003

28 fragments (330g) showing a light red frame (MPW 0.054) bordering a white field (MPW 0.105). Discard.

96.0071.004

1 restored fragment in 4 pieces (200g; Th 0.009; MPW 0.146; MPL 0.149) showing, from left to right, a white field (MPW 0.03), a gray band (W 0.02), a red band (W 0.08), and a white field (MPW 0.017). The plaster backing is smooth which suggests the piece was originally attached to a mudbrick surface.

96.0071.005

2 fragments (14g) showing, from left to right, a worn brown band (MPW 0.02), and a yellow field (MPW 0.029). 2 light red bands (W 0.004; separation 0.004 m) are found within the yellow field.

96.0071.006

144 fragments (770g) of indeterminable color and motif. Discard.

96.0071.007

25 fragments showing indeterminable motif in dark red. Fragments joins to possibly form part of a panel (MPL 0.275; MPW 0.140; Th 0.005 - 0.010). Discard.

96.0071.008

17 fragments (294g) showing a banded motif in red, yellow and white. 1 restored fragment in 5 pieces (52g; Th 0.004; MPW 0.080; MPL 0.080) shows a yellow band (MPW 0.028) edging a white band (W 0.025), next to a red band/field (MPW 0.035). 1 restored fragment in 8 pieces (214g; Th 0.010; MPW 0.157; MPL 0.105) showing, from left to right, a red field (MPW 0.085), a yellow band (0.045); a white band (W 0.020), and a red band/field (MPW 0.012).

96.0071.009

3 fragments (22g) showing a pink, gray and white mottled design (an attempt at mimicking marble).

96.0071.010

11 fragments (194g) showing portions of a white volute (W 0.015) design on a white field.

96.0071.011

17 fragments (462g; MPL 0.23; MPW 0.182) showing banding corner motif, from left to right, a red (W 0.52) and gray (W 0.15) orthogonal frame bordering a white field (MPW 0.11) with a red/brown indiscernible design inside field.

96.0071.012

1 restored fragment in 3 pieces (40g; MPL 0.096; MPW 0.039; Th 0.001) showing from top to bottom: a red band/field (MPW 0.024) bordering a pink field (MPW 0.014). 4 thin drip marks (W 0.002) fall from red field down over pink field.

96.0071.013

2 fragments (18g) showing an indiscernible design of red and pink brush strokes (W 0.013) on a white field

96.0071.014

3 fragments (82g) showing a design of thin red lines (W 0.004) on a pink/white background. 2 fragments show a curved red line with small red peaks (causing the line to undulate) on interior--very similar to the wreath motif.

\*See Plate A14

96.0071.015

25 fragments (170g) showing a green and red design on a white background. 1 restored fragment in 6 pieces (104g; Th 0.003 – 0.009; MPL 0.14; MPW 0.114) shows a possible floral motif of a red flower bud-like design (L 0.072; W 0.050) with a green line stem (L 0.050; W 0.003).

\*See Plate A15

**Bucket #96.0077**

**Locus 06**—collapsed over 96.0077, 96.0573, 96.0575.

96.0077.001

47 fragments (392g). 1 restored concave corner fragment in 10 pieces (76g; Th 0.006; MPL 0.132; MPW 0.086) shows from corner outwards, a pink border (W 0.045) framing a pink/white field (MPW 0.082).

96.0077.002

41 deteriorated and muddy fragments (474g; Th 0.002-0.007) showing portions of a red (MPW 0.05), and a black banded border (W 0.01) framing a white field (MPW 0.076). Traces of mud plaster, but no

stone impressions, adhere to the back of fragments.

96.0077.003

1 fragment (116g) of thick red plaster (0.01-0.029 m) that appears to have been laid in 2 layers.

96.0077.004

1 restored fragment in 8 pieces (74g; MPL 0.099; MPW 0.057) showing a faded gray volute (MPW 0.018) on a white background. Kept.

96.0077.005

1 restored fragment in 6 pieces (36g; MPW 0.126; MPL 0.09) showing a light gray band (MPW 0.03) bordering a white field (MPW 0.081). Discard.

96.0077.006

14 fragments (72g) showing probable body parts in pink outlined in gray (W 0.003) on a white field.

96.0077.007

77 fragments (268g) too deteriorated to determine colors or motif.

96.0077.008

31 fragments (116g) of white faced plaster (Th 0.004-0.015). 1 fragment (MPL 0.25; MPW 0.16) is edged by a yellow line/band (MPW 0.017). 1 fragment shows gray detailing. Discard.

96.0077.009

1 fragment (174g; Th 0.035; MPL 0.110; MPW 0.081) showing a yellow band (MPW 0.017), and a white field (MPW 0.035). The plaster on backside appears extremely bulbous and gnarled.

96.0077.010

4 fragments (72g) showing portions of the "gap tooth" motif in red on a yellow background. 1 fragment (44g; Th 0.008; MPW 0.066; MPL 0.075) shows, from left to right or top to bottom, a red band (MPW 0.014), and a yellow field (MPW 0.053). Two red rectangles (W 0.018; L 0.015; separation 0.024) abut the red band (gap-tooth motif). Two parallel red lines (W 0.003; separation 0.005 m) run through the yellow field. Kept.

\*See Plate A16

96.0077.011

1 fragment (20g) showing red spiraling lines on a white field. Discard.

**Bucket #96.0085**

**Locus ?**

96.0085.001

1 fragment (14g; Th 0.007; MPL 0.05; MPW 0.035) showing areas of pink and light green bordered by a red area (MPW 0.012).

**Bucket #96.0091**

**Locus 02**

96.0091.001

1 fragment (12g; Th 0.008; MPL 0.038; MPW 0.033) showing a white field with a curving (arced) red line bracketed, but not abutted, by red circular dots (D 0.004). Kept.

\*See Plate A17

**Bucket # 96.0503**

**Locus 01**

96.0503.001

1 restored fragment (MPL 0.22; MPW 0.17) showing red, dark red,

and pink areas divided by white bands (W 0.015).

96.0503.002

1 restored fragment (MPL 0.28; MPW 0.11) showing faded indeterminate areas of dark red, and dark gray.

96.0503.003

1 restored fragment (MPL 0.15; MPW 0.14) showing a red band outlined in dark gray with white areas on either side.

96.0503.004

1 restored fragment (MPL 0.07; MPW 0.04) showing a red area, a white band (W 0.015), a red band (W 0.010), and traces of yellow.

96.0503.005

1 restored fragment (MPL 0.20; MPW 0.12) showing a white background with traces of red.

96.0503.006

1 restored fragment (MPL 0.16; MPW 0.10) showing a red area, abutting a series of bands in yellow (W 0.045), red, white (W 0.015), and red.

96.0503.007

1 restored fragment (MPL 0.09; MPW 0.07) showing no discernable motif in red, white and yellow.

96.0503.008

1 restored concave corner fragment (MPL 0.13; MPW 0.11) showing an indeterminate design in dark red and greenish gray on a white background.

**Bucket # 96.0504**

**Locus 08**

**Square 02**

Note: Sq. 02 shows corner fragments in red and white only—whereas Sq. 04 shows corner fragments in yellow, red, white, and gray, and combinations of these.

96.0504.001

1 restored fragment in 141 pieces (1844g; MPL 0.595; MPW 0.48) backed and lifted in the field. This piece is too deteriorated (encrusted with mud) to discern a clear motif or colors, and cannot be cleaned by washing or scraping. A red and gray border, starting at a concave corner and edging a white field can vaguely be determined. Discard.

96.0504.002

1 restored fragment in 55 pieces, backed and lifted in the field (MPW 0.424; MPL 0.229) joins with 96.0504.001 (join lost). This fragment is too deteriorated to discern design beyond what appears to be a white background. Discard.

96.0504.003

25 indeterminate fragments (86g) excavated together with 96.0504.001-002. Discard.

96.0504.004

1 fragment in 63 pieces (760g) lifted and faced in the field, showing, from left to right, a red field starting in a concave corner (MPW 0.072), a gray band (W 0.02), and a white field. There is a small hole through the plaster within the white field (D 0.003). The fragment is encrusted in mud with traces of mildew on both red and white areas. The fragment was found

laying face down in soil. The backside is smooth plaster, indicating a mudbrick support. The bucket tag indicates that it is associated with fragments from 96.0506.001/002. Discard.

96.0504.005

1 restored fragment in 160 pieces—lifted in the field (860g; Th 0.003-0.006; MPW 0.27; MPL 0.439) showing an indeterminable design in red, pink, and yellow on a white field. Discard.

96.0504.006

380 fragments (1980g) of indeterminable color and design. Discard.

96.0504.007

445 fragments of white-faced plaster. The backside of these fragments is smooth. Discard.

96.0504.008

195 fragments (Th 0.004-0.010) showing tonalities of red. 9 concave corner fragments, 3 convex corner fragments. Discard.

96.0504.009

46 fragments (364g) showing indeterminable design in gray. Discard.

96.0504.010

84 fragments (1788g) showing portions of a red and gray border framing a white field. 2 restored fragments show the red band (W 0.028-0.070) next to a gray band (W 0.016-0.024) starting at a concave corner. 1 restored fragment in 13 pieces (234g) shows orthogonal

banded corner framing a white area.

96.0504.011

39 fragments (540g; MPW 0.200; MPL 0.160; Th 0.008) showing, from top to bottom, a white field (MPW 0.100), a red band (W 0.072), a light gray band (W 0.015), and a white field (MPW 0.014). Possibly a division between panels. Discard.

96.0504.012

28 fragments (270g) showing portions of a red and black band which possibly joins with 96.0504.010.

96.0504.013

1 restored fragment in 8 pieces (208g; Th 0.008) showing a white band (MPW 0.11), bordered by a red band (MPW 0.016). The plaster backing shows an imprint of a Nabataean dressed stone.

96.0504.014

24 fragments (322g) showing portions of a white field bordered by a red band.

96.0504.015

16 convex corner fragments (654g). 1 restored red convex corner fragment in 6 pieces (504g; MPL 0.355; Th 0.009 on flat surface; Th 0.023 on corner). Corner makes a 120-degree angle. 1 corner fragment shows one white surface, and one white surface bordered by a red band. 1 red corner fragment remains affixed to a portion of the stone corner (410g; MPL 0.0142). Stone corner turns a 100-degree angle.

96.0504.016

5 convex corner fragments (444g). 1 corner fragment (MPL 0.166; MPW 0.115; Th 0.014 at corner; Th 0.007 at flat wall surface) shows a white field extending from the corner, below a horizontal red band (W 0.017). A red drip mark extends from the red band onto the white field. This fragment may possibly be from the lower right corner of the bottom most framed field on the wall.

96.0504.017

1 restored fragment in 11 pieces (Th 0.025; MPL 0.137; MPW 0.127) showing, from top to bottom, a white field (MPL 0.016) above a pink field (MPL 0.122) with an indeterminable design in light purple.

96.0504.018

1 restored fragment in 7 pieces (550g; Th 0.012; MPL 0.354; MPW 0.125) showing, from top to bottom, a white field (MPW 0.052), a yellow band (W 0.047), a green band/field (MPW 0.046). The design is extremely worn and difficult to determine.

96.0504.019

1 restored fragment in 18 pieces (104g; MPW 0.16; MPL 0.105) showing, from left to right, a red band (MPW 0.041), a light brown band (W 0.026), a yellow band (W 0.029), a deteriorated band possibly light brown (W 0.017), and a pink and red variegated band (MPW 0.04).

96.0504.020

1 restored fragment in 5 pieces (28g; MPW 0.075; MPL 0.081), showing from, left to right, a red band (MPW 0.026), a worn light brown band (W 0.023), and a yellow band (W 0.028).

96.0504.021

1 restored fragment in 4 pieces (40g; Th 0.005; MPW 0.08; MPL 0.116) showing, from left to right, a worn brown band (MPW 0.008), a yellow band (W 0.06), and a red band (MPW 0.012). Discard.

96.0504.022

1 restored fragment in 6 pieces (74g; Th 0.006; MPW 0.136; MPL 0.106) showing, from left to right, a red band (MPW 0.043), a yellow band (W 0.034), a gray band (W 0.018), and a white field (MPW 0.042). Within the yellow band are two parallel brown lines (W 0.002; separation 0.006 m). The white field shows traces of pink and red. Discard.

96.0504.023

2 restored concave corner fragments (134g) showing portions of the banding motif. 1 restored fragment in 8 pieces (82g) shows a light red band (W 0.053) extending from a corner, next to a brown band (W 0.015), next to a yellow band (MPW 0.009).

96.0504.024

1 restored corner fragment in 7 pieces (126g) showing a red band (W 0.037) extending from the corner, next to a worn brown or gray (?) band (W 0.015), next to a white field (W 0.043), next to a red band/field (MPW 0.015).

96.0504.025

1 restored fragment in 3 pieces (20g; Th 0.004; MPW 0.065; MPL 0.074) showing a red band (W 0.037) extending from a corner, abutting a brown band (W 0.019) that is next to a yellow band (MPW 0.001). Discard.

96.0504.026

1 restored fragment in 2 pieces (114g; MPL 0.175; MPW 0.092) shows a red field enclosing a white rectangle (MPL 0.06; MPW 0.067) on 3 sides. The plaster surface was heavily encrusted with mud. Discard.

96.0504.027

1 fragment (36g; Th 0.007; MPL 0.07; MPW 0.059) showing a yellow field (MPW 0.011), a reddish-brown band (W 0.032), and a yellow field (MPW 0.021). Discard.

96.0504.028

3 fragments (42g) showing gray lines and bands on a white background. 1 fragment (MPL 0.075; MPW 0.068) shows an orthogonal gray band (MPW 0.017) framing a white field on 2 sides. 1 fragment shows an indeterminable design of gray lines (W 0.002-0.005) on a white field. Discard.

96.0504.029

11 fragments (128g) showing portions of the "gap tooth" motif in reddish-brown, white, and yellow. 1 restored fragment (20g) shows, from left to right, a white field (MPW 0.024) containing 2 vertical

pink rectangular lines (W 0.005; MPL 0.014), a reddish-brown band (W 0.029), and a yellow field (MPW 0.027). Within the yellow field that abuts the reddish-brown band is a reddish brown rectangle (W 0.014; L 0.014) which is aligned with a pink design in the white field. 1 fragment (12g) shows a brown band (MPW 0.014) abutted by a yellow band (MPW 0.026). Within the yellow band are 2 parallel brown lines (W 0.004; separation 0.005). Kept.

96.0504.030

2 fragments (12g) showing a green band (MPW 0.02) bordered by a reddish-brown band (MPW 0.025). Discard.

96.0504.031

25 fragments (220g) of miscellaneous yellow, green, and white-faced plaster. 1 fragment shows a yellow band (MPW 0.014) next to a gray or brown band (W 0.005), next to a white field (MPW 0.057). 1 fragment shows a yellow field (MPW 0.033) abutting a red band (W 0.002), next to a white band (MPW 0.002). Discard.

96.0504.032

3 fragments (148g) showing traces of blue—possibly Egyptian blue (seen in the Roman fort). 1 restored fragment in 3 pieces (134g) shows an indeterminable design in light red, gray, green and blue, on a white field. A light red band (W0.013) curves through the field with two same color orthogonal bands extending from the band.

96.0504.033

14 fragments (218g) showing an indeterminable design in red, pink and white. Discard.

96.0504.034

1 fragment (12g; Th 0.005; MPL 0.042; MPW 0.038) shows a brown looped line (W 0.004) on a white background. Kept.

96.0504.035

41 fragments (348g) showing portions of an indeterminable design in red and yellow curving brush strokes on a white background. 1 restored fragment in 9 pieces (94g; Th 0.007; MPL 0.135; MPW 0.100) shows a yellow band (W 0.022) abutted by 2 curved red lines (W 0.008), with some yellow detailing on the red.

96.0504.036

16 fragments all showing a design in yellow, gray, and red, on a white field. The gray and red bands appear to enclose an area in yellow and red. Some painted lines are embellished with loops and arcs in red and gray. Kept.

\*See Plate A19

96.0504.037

5 fragments (18g), including 1 restored fragment in 4 pieces (Th 0.005; MPL 0.045; MPW 0.06) showing a light pink figure (W 0.03; MPL 0.045) outlined in gray (W 0.003). A red line (W 0.004) arches across the figure in a half circle—perhaps a bracelet on a wrist. Kept.

\*See Plate A20

96.0504.038

109 fragments showing portions of a yellow and pink curving design outlined in red on a white background.

**Bucket # 96.0507**

**Locus 68**

96.0507.001

1 restored corner fragment (MPL 0.16; MPW 0.11) showing a dark red band (W 0.025) abutting a dark gray band (W 0.020).

96.0507.002

1 restored fragment (MPL 0.22; MPW 0.13) showing a double-banded corner in dark red (W 0.06) edged on the inside by dark gray (W 0.02), framing a white field.

96.0507.003

1 restored fragment (MPL 0.07; MPW 0.06) showing traces of red.

96.0507.004

1 restored corner fragment (MPL 0.10; MPW 0.08) showing a red band (W 0.05) abutting a yellow area. This fragment was whitewashed.

**Bucket #96.0516**

**Locus 08**

**Room 02**

96.0516.001

1 restored fragment (MPL 0.14; MPW 0.12) showing narrow curving gray lines on a light red background. Also shows traces of dark red and white. Shows signs of whitewashing.

96.0516.002

1 restored fragment in 5 pieces (174g; MPL 0.19; MPW 0.12)

showing an eagle holding a wreath design. The wreath is rendered in a simple curved, dark red line (D 0.07). There are hanging ribbon (tendrils) off one side of the wreath, and teardrop shaped designs (leaves ?) painted around the inside and outer perimeter of the wreath. The wreath is held in the beak of an eagle outline in brown on a white background.

\*See Fig. # in Chapter Two

**Bucket #96.0520**

**Locus 15**

96.0520.001

2 fragments (18g) including 1 that shows, from left to right, a pinkish-red band (MPW 0.018), a faded red band (W 0.019), and a white field (MPW 0.011). The other fragment shows, from left to right, a brown band (MPW 0.009), and a yellow field (MPW 0.026) dissected by a reddish-brown band. Discard.

**Bucket #96.0526.**

**Locus 16**—collapsed over buckets

96.0521, 96.0526.

96.0526.001

1 fragment (186g; Th 0.01; MPL 0.154; MPW 0.127) showing a red and pink band framing a light red and yellow volute-like design on a white field. From left to right appears a red band (MPW 0.025—possibly ending in a concave corner piece), a pink band (W0.025), and a white field (MPW 0.055). The volute (MPW 0.043; MPL 0.086) starts 0.01 m from the beginning of the white field. Kept.

96.0526.002

128 fragments (926g) showing traces of the red, pink and white bands

described in 96.0526.001. 3 fragments are concave corner pieces. Discard.

96.0526.003

1 convex corner fragment (40g) featuring a smooth curved corner. The corner is painted red, and the only extant wall surface is painted white (MPW 0.023). Discard.

96.0526.004

85 fragments (520g) of white-faced plaster (largest fragment measures: MPL 0.150; MPW 0.072; Th 0.01). Discard.

96.0526.005

116 fragments (300g) showing indeterminable design in yellow, light red, and white—found with 96.0526.001. Several fragments show a white field framed by an angled border (?) in red and yellow. Angles range from 140 – 120 – 65 degrees. 1 restored fragment shows 3 light red, rectangular, freehand daubs on a yellow background. Kept.

96.0526.006

10 fragments (82g) showing white-faced plaster with light red (pink?) freehand lines (W 0.006-0.008). Found with design from 96.0526.001, though this design is completely indeterminable. Kept.

**Bucket #96.0551**

**Locus ?**

96.0551.001

1 fragment (12g; MPL 0.035; MPW 0.044) showing a dark gray polygonal band (MPW 0.022) which turns a 130 degree angle. Within

the polygon is a white field with dark gray circular design. Kept.

**Bucket #96.0553**

**Locus ?**

96.0553.001

1 fragment (12g; MPL 0.044; MPW 0.043) showing a light pink band (MPW 0.029) edged by a thin red line (W 0.002) on a white field. Kept.

**Bucket #96.0570**

**Locus 06**

**Square 02**

96.0570.001

1 restored fragment (MPL 0.115; MPW 0.12) showing a narrow dark gray line bracketed by a red and a white area.

96.0570.002

1 restored fragment (MPL 0.17; MPW 0.11) showing a red band (W 0.04) abutting a pale yellow band (W 0.06), that abuts a red band (W 0.01).

96.0570.003

1 restored fragment (MPL 0.15; MPW 0.095) showing a design in dark red and thin gray bands on a white background.

96.0570.004

1 restored fragment (MPL 0.08; MPW 0.04) showing indeterminable design in light red.

96.0570.005

1 restored red corner fragment (MPL 0.09; MPW 0.05).

96.0570.006

1 restored fragment (MPL 0.09; MPW 0.05) showing gray and tonalities of red.

96.0570.007

1 restored fragment (MPL 0.095; MPW 0.075) showing a yellow band (W 0.06) abutting a red area.

96.0570.008

1 restored fragment (MPL 0.12; MPW 0.09) showing indeterminable design in red, white, and gray.

96.0570.009

1 restored fragment (MPL; 0.11; MPW 0.075) showing indeterminable motif in red and gray.

96.0570.010

1 restored fragment (MPL; 0.16; MPW 0.09) showing indeterminable design in red and gray.

96.0570.011

1 restored corner fragment (MPL 0.11; MPW 0.075) showing a red band (W 0.05) abutting a white band (W0.015), framing a field with traces of red, white and yellow.

96.0570.012

1 restored fragment (MPL 0.13; MPW 0.105) showing a red area abutting a yellow band that is edged by a dark gray band. The bands frame a white field.

96.0570.013

1 restored fragment (MPL 0.05; MPW 0.05) showing indeterminable design in red and dark gray.

**Bucket #96.0571**

**Locus 07**

**Square 02**

96.0571.001

1 restored corner fragment in two pieces (MPL 0.23; MPW 0.13) showing traces of dark and dark red.

96.0571.002

1 restored fragment (MPL 0.12; MPW 0.06) shows a dark red band, and traces of yellow.

**Bucket #96.0573**

**Locus 02**

**Square 02**

96.0573.001

1 restored fragment (MPL 0.11; MPW 0.075) showing traces of a dark gray looping or spiral design on a white background.

96.0573.002

1 restored fragment (MPL 0.11; MPW 0.08) showing traces of gray, red and yellow. Plaster encrusted with dirt.

96.0573.003

1 restored fragment (MPL 0.14; MPW 0.12) showing areas of red and yellow. Plaster too deteriorated to discern design.

96.0573.004

1 restored fragment (MPL 0.10; MPW 0.065) showing dark gray, red, and dark red. Whitewashed.

96.0573.005

1 restored fragment (MPL 0.05; MPW 0.04) showing yellow wash.

96.0573.006

1 restored fragment (MPL 0.095; MPW 0.06) showing curving or spiral gray line on a white background.

96.0573.007

1 fragment (MPL 0.75; MPW 0.45) showing traces of red and gray.

96.0573.008

1 restored fragment (MPL 0.075; MPW 0.045) showing a dark red band, bracketed by a red area and a yellow area.

96.0573.009

1 fragment (MPL 0.13; MPW 0.12) showing a banded motif in red and dark gray.

**Bucket #96.0574**

**Locus 08**

**Square 02**

96.0574.001

1 restored fragment (MPL 0.20; MPW 0.16) shows a red band (W 0.07) bracketed by a white area and an area showing traces of dark gray.

96.0574.002

1 restored fragment (MPL 0.13; MPW 0.13) showing abutting areas of red and gray.

96.0574.003

1 restored fragment (MPL 0.08; MPW 0.045) showing a red band bracketed by an area with traces of red, and a yellow area with traces of red.

96.0574.004

1 restored fragment (MPL 0.065; MPW 0.035) showing an undeterminable design in red, yellow and light gray.

**Bucket #96.0575****Locus 06****Square 02**

96.0575.001

Miscellaneous fragments (Th 0.025) showing red. 1 convex corner fragment.

96.0575.002

1 restored fragment (MPL 0.09; MPW 0.07) showing dark red, and traces of dark gray.

96.0575.003

1 restored fragment (MPL 0.10; MPW 0.07) showing red band edged by a dark gray band. Bands frame a white field showing traces of red. Fragment was whitewashed.

96.0575.004

1 restored fragment (MPL 0.11; MPW 0.11; Th 0.015) showing white with traces of yellow.

96.0575.005

1 restored fragment (MPL 0.13; MPW 0.08) showing gray and pink areas.

96.0575.006

1 restored fragment (MPL 0.08; MPW 0.07) showing indeterminable design in red and white.

96.0575.007

1 restored fragment (MPL 0.09; MPW 0.04) showing dark red brush strokes on a white background.

96.0575.008

1 restored fragment (MPL 0.10; MPW 0.05) showing red on a white background.

96.0575.009

1 restored fragment (MPL 0.07; 0.05) showing a pink area with a thin dark gray outline on a white background. Possibly portions of a human figural scene.

**Bucket # 96.0576****Locus 08**

96.0576.001

1 restored fragment (MPL 0.10; MPW 0.09) showing a worn yellow band

96.0576.002

1 restored fragment (MPL 0.18; MPW 0.12) with traces of red bordering an area showing a light gray wash.

96.0576.003

1 restored fragment (MPL 0.26; MPW 0.12) showing a yellow band (W 0.045) bracketed by a pale olive area and a white field.

96.0576.004

1 restored corner fragment (MPL 0.10; MPW 0.05) showing a red band (W 0.06) and a white field with traces of yellow.

96.0576.005

1 restored fragment (MPL 0.05; MPW 0.025) showing a dark red band (W 0.02) bracketed by areas of white and red.

96.0576.006

1 restored fragment (MPL 0.11; MPW 0.09) with curving, and crossing gray, red, and green bands on a white background.

**Bucket #96.0582**

**Locus ?**

96.0582.001

7 miscellaneous fragments (42g). 3 show a white field with a reddish-brown band. 1 fragment shows a gray orthogonal border (MPW 0.013) framing a white field. 1 fragment shows a light green wash. 1 fragment shows a gray drip mark. Discard.

**Bucket #96.0583****Locus ?**

96.0583.001

81 fragments (1530g; Th 0.007-0.024) of white-faced plaster. Some fragments are whitewashed. Discard.

96.0583.002

22 fragments (130g) showing white and red color. 4 pieces have a plaster lip (running board) with a red line painted along the sloping edge.

96.0583.003

5 fragments (26g) showing white-faced plaster with traces of red and black. Discard.

**Bucket #96.0588****Locus ?**

28 fragments (142g) of red and/or red and white-faced plaster. Discard.

96.0588.002

8 fragments (42g) of yellow-faced plaster. Discard.

96.0588.003

1 fragment (6g) of green-faced plaster. Discard.

96.0588.004

1 fragment (4g) showing a white field bordered by a gray band (MPW 0.010) with traces of yellow paint on outside of band.

96.0588.005

7 fragments (40g) showing a yellow and brown mottled surface, and/or, a yellow-brown area bordering a white field. 1 fragment shows 2 reddish-brown parallel lines (W 0.005; separation 0.01). Discard.

96.0588.006

12 fragments (58g) of miscellaneous and indeterminable color and design.

**Bucket #96.0592****Locus 19**

96.0592.001

159 fragments (1760g) of white-faced plaster. The largest fragment measures: Th 0.004-0.009; MPL 0.236; MPW 0.143. The backside of plaster shows the imprint of Nabataean dressed stone. Discard.

96.0592.002

50 fragments (484g) showing traces of red and white banding. Discard.

96.0592.003

8 fragments (200g) showing a white field with a green wash. Some pieces show traces of a red border. Discard

96.0592.004

14 fragments (232g) showing a faded oval design (L 0.027; W 0.016) in red, white, pink, gray, and outlined in red.

96.0592.005

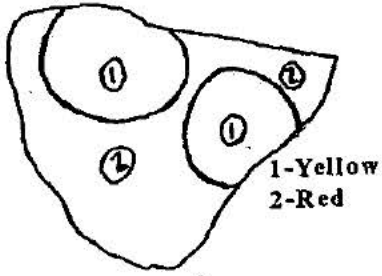
4 fragments (166g) showing a white field with curving and "v" shaped light red lines (W 0.01-0.014).

96.0592.006

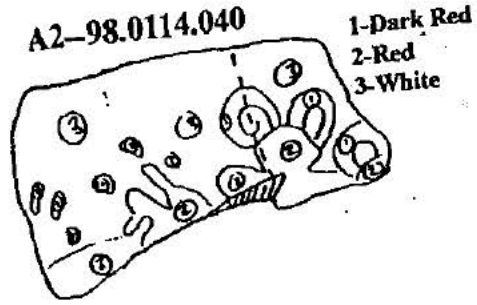
1 restored fragment in 20 pieces, showing a worn, undeterminable design in red, gray, and white on a white background. Backside shows traces of Nabataean dressed stone. Discard.

PLATES A1: A2: A3:

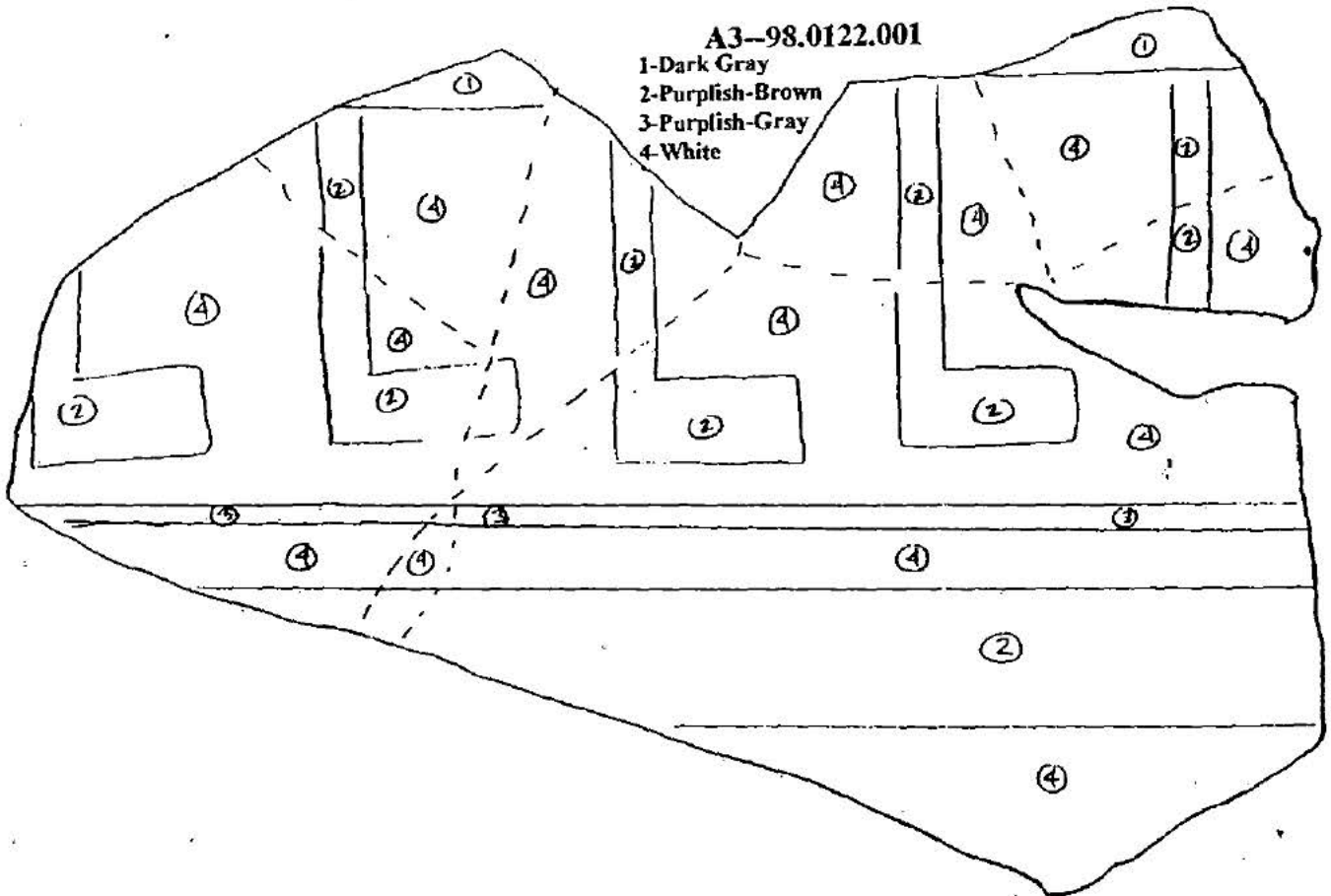
A1--96.0114.026



A2--98.0114.040



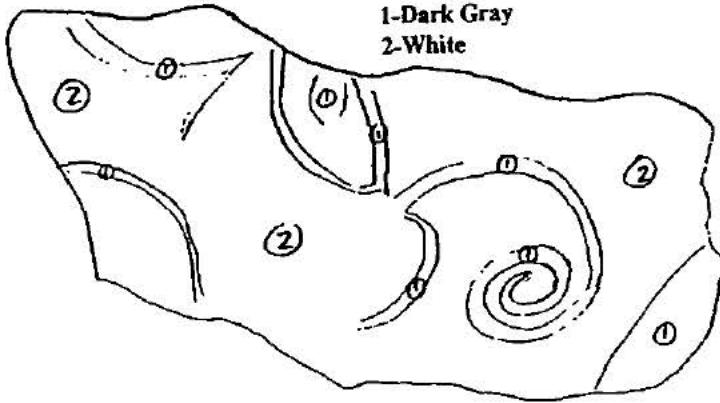
A3--98.0122.001



PLATES A4: A5: A6

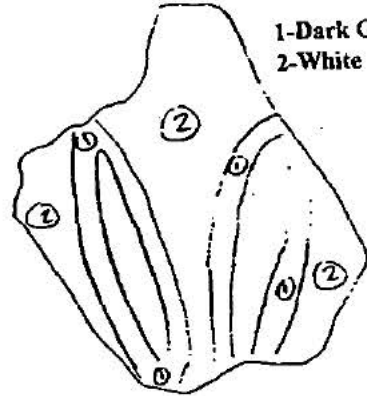
A4-98.0122.008

1-Dark Gray  
2-White



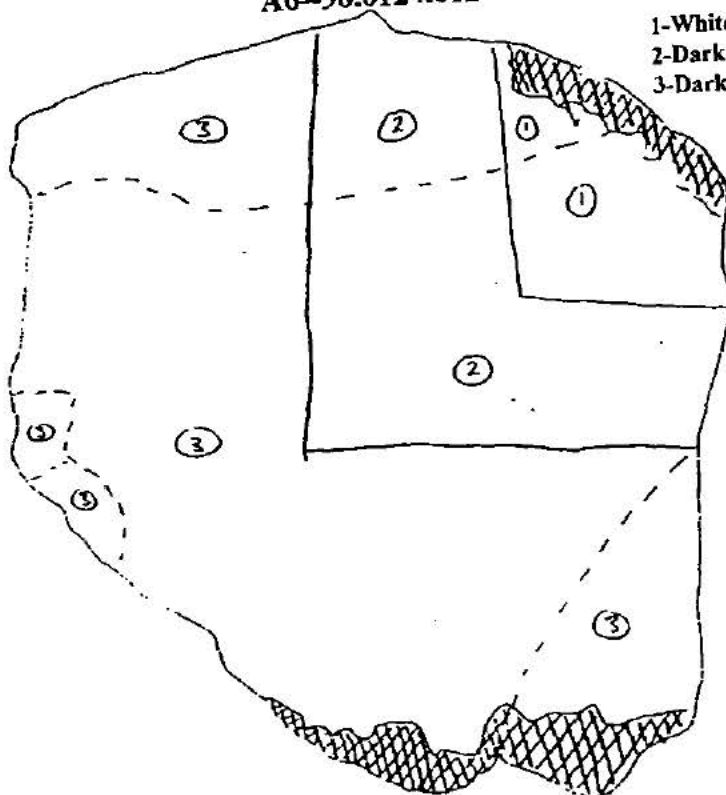
A5-98.0124.009

1-Dark Gray  
2-White



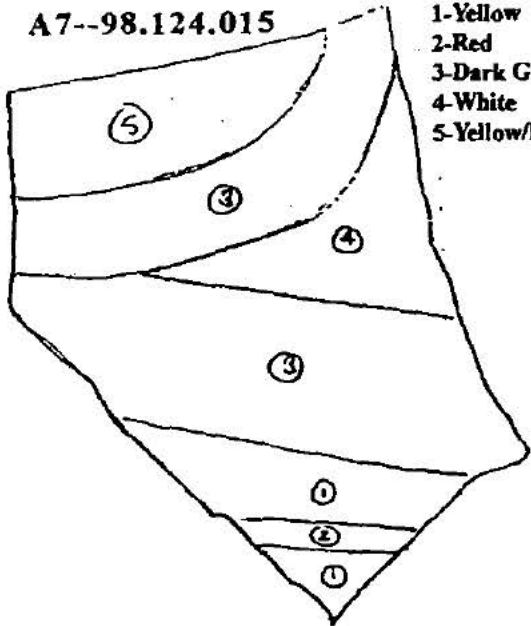
A6-98.0124.012

1-White  
2-Dark Gray  
3-Dark Red



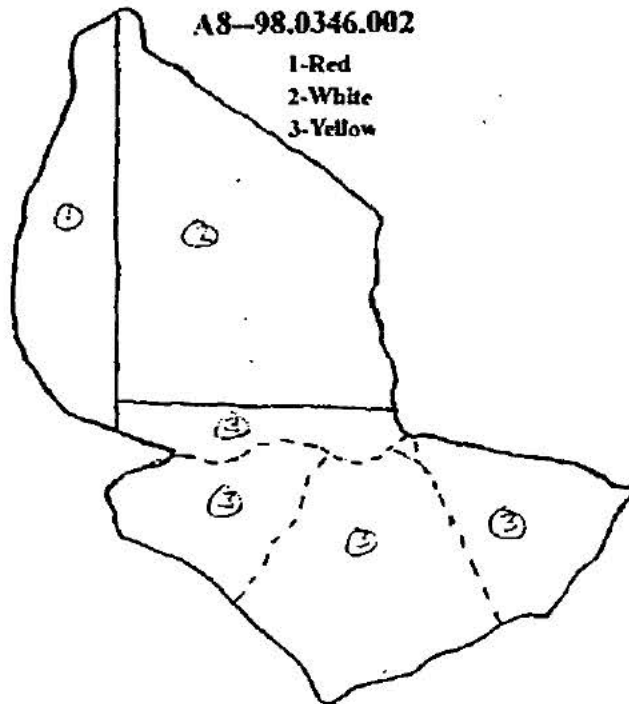
PLATES A7: A8:

A7--98.124.015



- 1-Yellow
- 2-Red
- 3-Dark Gray
- 4-White
- 5-Yellow/Pink

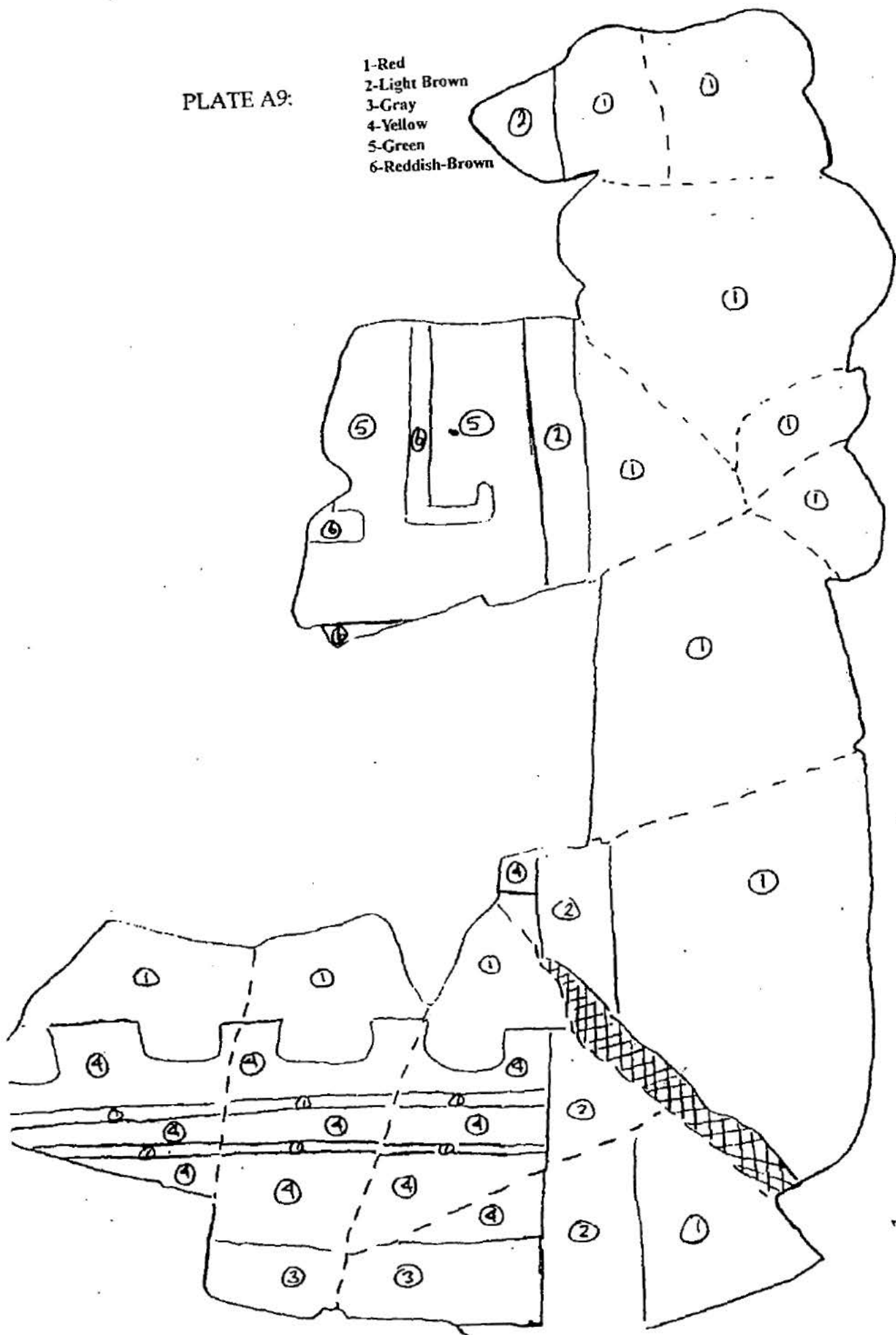
A8--98.0346.002



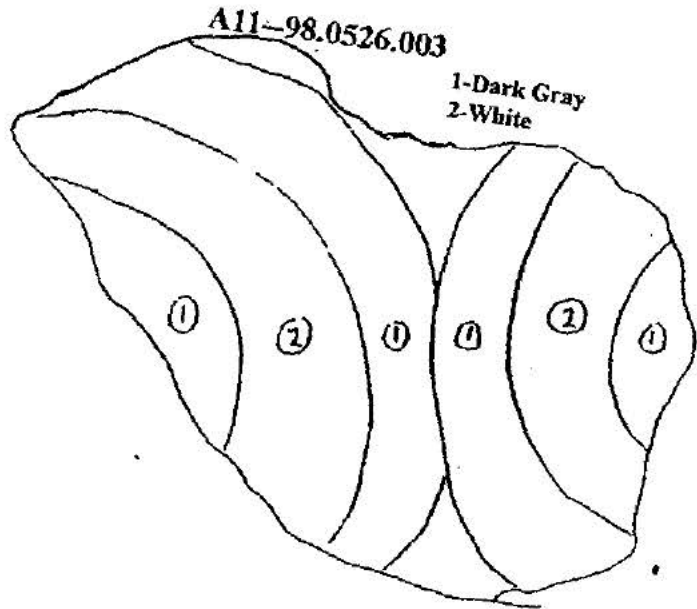
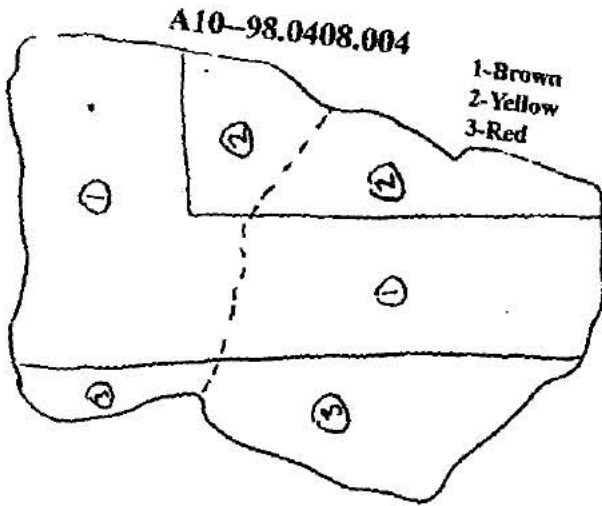
- 1-Red
- 2-White
- 3-Yellow

PLATE A9:

- 1-Red
- 2-Light Brown
- 3-Gray
- 4-Yellow
- 5-Green
- 6-Reddish-Brown

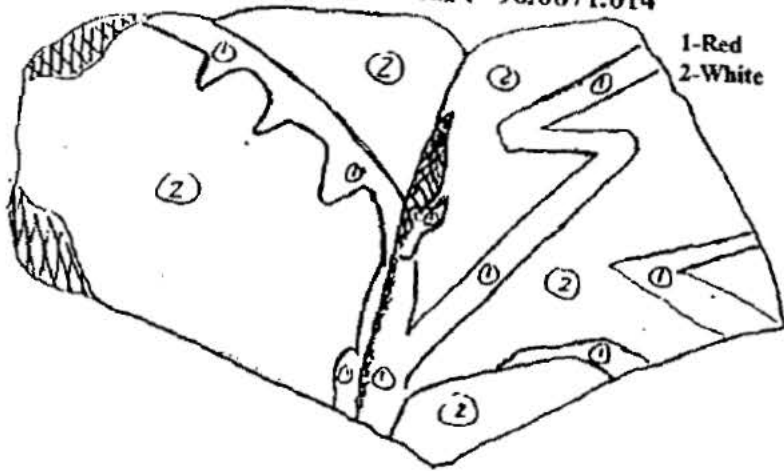


PLATES A10: A11: A12



PLATES A13: A14

A14-96.0071.014



A13-98.0537.011

- 1-Green
- 2-Dark Gray
- 3-Yellow
- 4-Green w/ Red Overpaint
- 5-Worn Brown

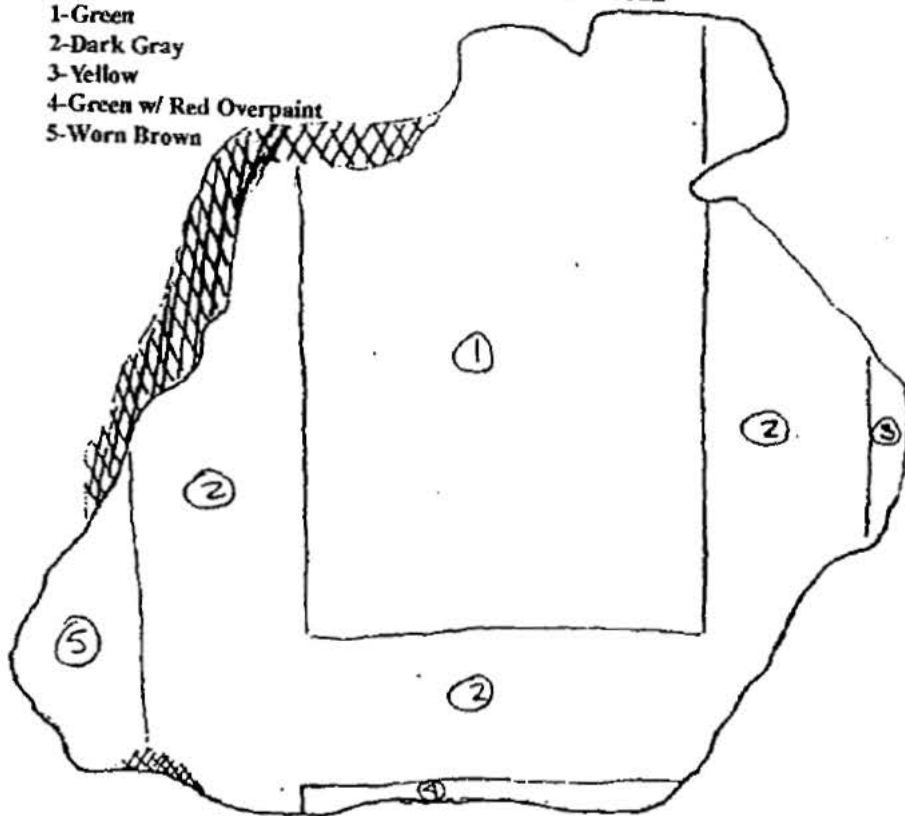
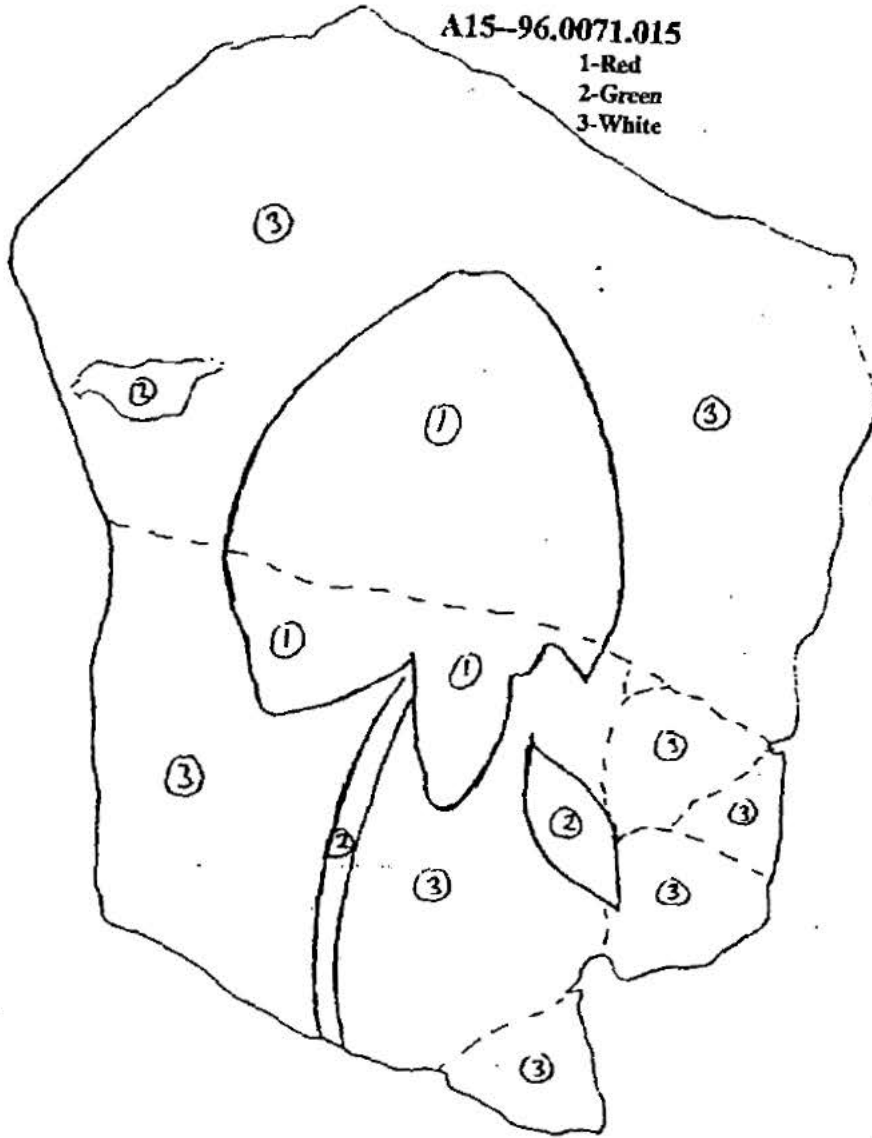


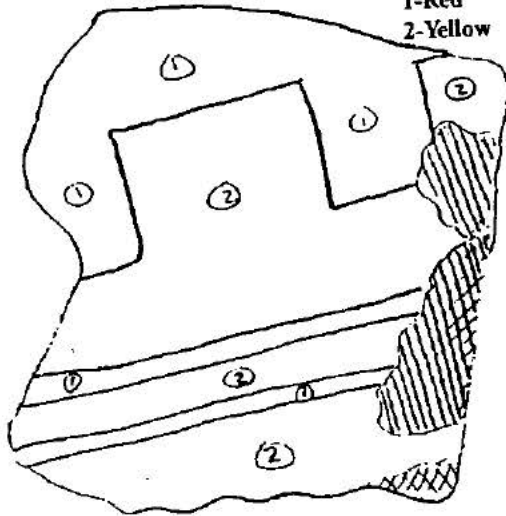
PLATE A15:



PLATES A16: A17: A18

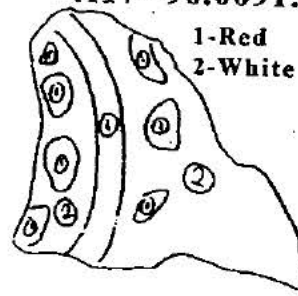
A16-96.0077.010

1-Red  
2-Yellow



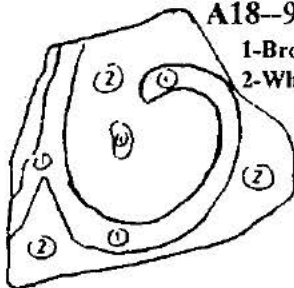
A17-96.0091.001

1-Red  
2-White



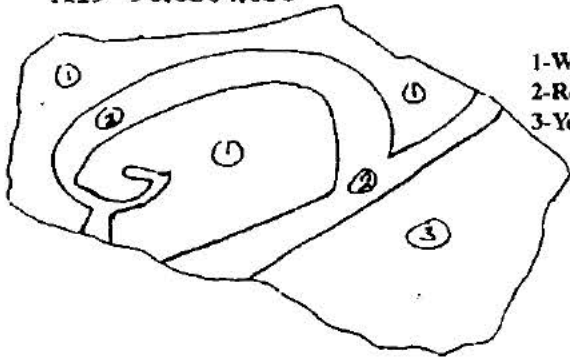
A18-96.0504.034

1-Brown  
2-White



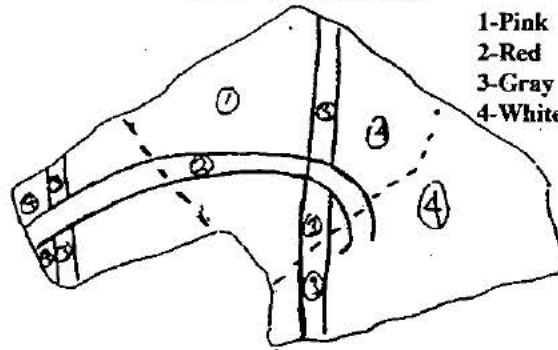
PLATES A19: A20:

A19-96.0504.036



- 1-White
- 2-Red
- 3-Yellow/Red

A20-96.0504.037



- 1-Pink
- 2-Red
- 3-Gray
- 4-White

## VITA

Surname: Karas

Given Names: Basiliki Vicky

Place of Birth: Jasper, Alberta, Canada

Date of Birth: December 24, 1970

### Educational Institutions Attended:

University of Victoria      1990-2000

### Degrees Awarded:

B.A. (Double Major) University of Victoria      1997

### Awards and Honors:

Von Rudloff Travelling Scholarship      1995

Apostolos Valerianos Scholarship      1998

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