

# *The Houses: Domestic Architecture, Dated Deposits, and Finds in Context*

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## INTRODUCTION

This chapter presents the architecture and stratigraphy from 12 areas investigated by archaeologists during the rescue excavations at Zeugma in 2000 (Trenches 1, 2, 4, 5, 7, 9–13, 18, and 19).<sup>1</sup> In general, the order of presentation moves from east to west across the part of the city excavated in 2000. Most of the buildings in these trenches were domestic in function. At least two, however, were probably public in nature: a possible portico in Trench 4 and a small latrine in Trench 10. Discussion of these buildings is included here in order to devote appropriate attention to the urban character of the part of the city where the houses were discovered.<sup>2</sup> All buildings presented in this chapter were backfilled before they were overcome by the waters of the Birecik reservoir. Erosion and wave action on the shoreline of the new reservoir has forever altered the topography of the areas described in this chapter. Efforts to consolidate and seal mosaics for posterity are described in the chapter by Roberto Nardi and Kristian Schneider in this volume. Beyond these, all other features left in situ at the conclusion of fieldwork in 2000 are presumed destroyed or transformed beyond recognition.

There are many other houses known from Zeugma in addition to the examples published here. Some were discovered during excavations at Zeugma by the Gaziantep Museum, the University of Western Australia, and the University of Nantes. Others were found by other groups of excavators working at Zeugma in 2000. It is important to stress that the data presented here belong to only some of the trenches excavated during the rescue campaign at Zeugma in 2000, and that some conclusions may need modification when the results of work by other groups appear in print.<sup>3</sup>

This chapter relies on field notebooks, drawings, and photographs produced by the excavators during rescue work of 2000.<sup>4</sup> I was not present at the time this data was compiled. Summaries of findings appeared as an unpublished report in 2001 and as a *Journal of Roman Archaeology* supplement in 2003. In addition to consulting these sources, I examined the excavation archive and the archaeological site visible at the Birecik reservoir during a 10-day visit to Zeugma in 2002. I have also made extensive use of the excavation archive at the University of Wisconsin–Madison, where all excavation documents were relocated in 2003. Study of the rescue excavations at Zeugma was also furthered by my participation in meetings organized

by William Aylward to enhance communication between specialists engaged in publication of the finds: a publication meeting at Wolfson College, Oxford, in April 2003 and a colloquium at the annual meeting of the American Institute of Archaeology in San Francisco, California, in January 2004. In this study I have adhered to the opinions of the excavators wherever possible, but in many cases the evidence merits a different view.

This chapter should be read in conjunction with chapters in this volume by Katherine Dunbabin and Bettina Bergmann, which present full accounts of the mosaic pavements and painted wall decoration in the houses. Chapters in this publication crucial for absolute dating of the deposits include Kevin Butcher's study of the coins and the chapters on pottery and amphorae by Philip Kenrick and Paul Reynolds. The reader of this chapter will find references to all of these works by author's last name or alphanumeric references in bold type, which refer to object catalogues classified by material.<sup>5</sup> The context descriptions chapter, this volume, can also assist the reader with cross-references between this and other chapters in these final reports.

Whereas the catalogues of finds are primarily organized by material and intrinsic chronological indicators, this chapter puts the objects in their archaeological context by weighing the evidence for the finds against the phasing produced by the excavators for The Packard Humanities Institute. Well over 1,500 finds were inventoried from excavations across a total area of about 10,378 m<sup>2</sup>.<sup>6</sup> A prose account of every single structural detail and every last object's context would only repeat data much more easily accessible in the context descriptions at the back of this volume. This chapter's distillation of the most significant features and finds from the rescue excavations at Zeugma in 2000 aims to shed light on the functionality and appearance of Zeugma's houses, as well as their context among domestic buildings in the Euphrates River valley in Graeco-Roman times.

## Chronological Overview

The 12 trenches published here represent building and habitation at Zeugma from Seleucid times through the early Islamic period. Dating relies on my analysis of the stratification as it was recorded by the excavators in notes, drawings, and photographs and on the dating of deposits by ceramics and coins published in volumes 2 and 3 by Philip Kenrick, Paul Reynolds, and Kevin Butcher.

### *Seleucid Phase*

Evidence for this phase at Zeugma is found in all areas published here except Trenches 1, 10, and 13. Characteristic of this phase are walls composed of neatly squared limestone ashlar, often preserving tool marks on the face and sometimes with faintly drafted margins. Ashlar walls of this type in Trench 7A have a clear Seleucid date (wall 7017). In some cases, Seleucid building methods appear to have continued into Commagenian and early Roman times.<sup>7</sup> Because they were easily robbed and transportable, blocks from these ashlar walls are pervasive as reused material in later buildings at Zeugma, especially in piers of Roman-era pier-and-panel walls. Deposits assigned to the Seleucid phase belong between the founding of Seleucia-on-the-Euphrates by Seleucus I Nikator ca. 300 B.C. and the beginning of Commagenian control over Zeugma ca. 64 B.C. Kenrick's Group A includes deposits of possible late second-century B.C. date. Relative phasing of architectural features sometimes merits the subdivision of the phase into parts.

### *Commagenian Phase*

Evidence for occupation during this phase is known from Trenches 7 and 11. It is possible that structures identified as Seleucid in other trenches could also belong to this phase, but in these cases the pottery and finds do not allow for dating precise enough to place construction firmly between 64 B.C. and A.D. 18. In a few cases, as in Trench 18, a building phase floating between a Seleucid phase and an Early Imperial phase is considered Commagenian. Deposits in this phase belong to the period of Commagenian control over Zeugma between ca. 64 B.C. and A.D. 18.

### *Early Imperial Phase*

Construction in this phase corresponds to the Flavian through Trajanic periods, and it is found in almost all trenches, especially Trenches 2, 9, and 13. This intensification of building activity may reflect the increased importance of Zeugma after the arrival of *legio IIII Scythica*. Walls belonging to this phase are identified by a distinctive method of construction known as pier-and-panel masonry, in which large ashlar piers, often composed of blocks reused from earlier structures, frame broad panels of rubble in an earthen matrix, with mud-brick sometimes used in the upper levels. In at least two cases, in Trenches 11 and 13, the infill panels were made of fired brick, which need not date later than Trajan.<sup>8</sup> Deposits in this phase belong from the beginning of Zeugma's Roman provincial status in A.D. 18 to the annexation of northern Mesopotamia by Lucius Verus in A.D. 161. Kenrick's Groups C and D correspond in time. In some cases, as in Trench 2, relative phasing of architectural features merits subdivision of this phase into "first part" and "second part," indicated by "1" and "2" in section headings and on phase plans.

### *Middle Imperial Phase*

There was limited building during this phase, but many instances of renovation. New construction seems limited to a shop in Trench 9 and a latrine in Trench 10, perhaps attached to a bath building. This phase is best known for the installation of mosaic pavements and painted-plaster wall decoration in several existing houses. Other improvements include the construction of a fountain in Trench 11 and the addition of a latrine to a house in Trench 2. This phase ends dramatically with the destruction of Zeugma by a Sasanian army led by Shapur I in A.D. 253. Shortly before the attack on the city, however, many of the structures were modified: spacious homes were diminished by blocked doorways and colonnades converted to solid walls, latrines went out of use, and painted plaster walls were scrawled with graffiti. Shortly before the fall, the city was in clear decline. Subdivision of the houses may have come about from having soldiers billeted within the city, especially since weapons and armor were found in the destruction debris of several houses. Deposits in this phase belong between the mid-second century and the Sasanian sack of Zeugma in A.D. 252/253. Corresponding datable finds include Kenrick's ceramic Group D and Butcher's Hoard 1. Like the Early Imperial phase, relative phasing of architectural features sometimes merits the subdivision of the Middle Imperial phase into two parts.

### *Late Imperial Phase*

In this phase several parts of the city were rebuilt, starting in the late fourth and early fifth century A.D. and continuing into the sixth century. Evidence for habitation is present in Trenches 1, 4, 5, 7, 9, 10, and 12. In general, builders appear to have tried to avoid building on destruction debris left behind after the Sasanian sack and instead erected buildings in places not occupied during the Middle Imperial phase. Walls of these structures were also pier-and-panel construction, but they often used spolia and fragments of brick. Some of these structures saw violent destruction in the seventh century A.D., although others appear to have been abandoned. Corresponding ceramics belong to Kenrick Groups E and F.

### *Early Islamic Phase*

Only Trench 1 has building activity datable to Islamic times. The only Abbasid coin from the trenches published in this chapter belongs to Trench 1 (C234). Elsewhere at the site the excavators found stray fragments of Ummayyad pottery. Kenrick pottery Group G assists the dating of deposits assigned to this phase. The line between Late Imperial and Early Islamic at Zeugma is marked by the defeat of the Byzantine army at the Yarmuk River in A.D. 636.

## THE HOUSES

A concentration of sustained building activity from Seleucid to Middle Imperial times in Trenches 7, 12, 13, and 18 suggests that this area was near the heart of the ancient city, and perhaps near the bridgehead across the Euphrates. Properties on the promontories with the best views of the river valley appear to have had the most lavish decoration. For example, the House of the Tunnel on a promontory in Trench 13 was far more richly decorated than the House of the Plastered Floor in Trench 18, where promontories obscured expansive views. Trench 2, also on a promontory, was adorned with the highest frequency of mosaics and wall painting among the trenches presented in this chapter. As such it offers the best comparison to houses with elaborate decoration uncovered in excavations by the University of Nantes and the Gaziantep Museum in 2000 (Trench 6 and the properties closer to the river in area called Zone A). An exception to the correlation of lavish decoration and vistas is found in Trench 11, set back from the river yet adorned with an elaborate polychrome figural mosaic and vibrant wall painting.

Although the trenches published here do not include any complete houses, it is still possible to make some observations on domestic planning and design at Zeugma. Examples of houses from the Early and Middle Imperial phase were found in Trenches 2, 11, 13 and 18. Two houses in Trench 2 (the House of the Helmets and the House of the Bull), as well as the House of the Fountain in Trench 11 and the House of the Plastered Floor in Trench 18, were courtyard houses. These houses had at least one courtyard each, often paved in mosaic and defined by columns on at least one side. Colonnades often gave access to rooms with elaborate mosaic pavements and colorful painted wall decoration. Ashlar masonry was common in the walls of these homes, many of which appear to have been refashioned from earlier Hellenistic properties on the same rock-cut foundations. The Roman-period architectural plans have close affinities with Hellenistic houses seen, for example, at Delos.<sup>9</sup> Because no complete plan was recovered in the Zeugma excavations, it is difficult to discuss specific comparanda, although these courtyard houses find basic parallels with courtyard houses from Syrian Apamea and Palmyra, as well as Antioch and Ephesos.<sup>10</sup>

Parts of three Late Imperial houses were also found in Trenches 5 and 7. The buildings in Trench 5 were of a simple design. The house found in Trench 7 has proved to be an example of a Late Imperial peristyle house.<sup>11</sup>

## Trench 10

Buildings in and around Trench 10 would have had unrestricted views across the Euphrates to the north, south, and east. The excavators uncovered several boundary walls that appear to have bordered two streets, one running north to south and another running northeast to southwest. At the

intersection stood a small latrine, perhaps belonging to a bath building excavated in the adjacent trench or to another neighboring building as yet undiscovered (Plates 3–8).<sup>12</sup>

## EARLY IMPERIAL PHASE

The construction of walls 10078, 10013, 10050, 10063, and 10056 marked the earliest activity in this trench (Plate 4). These walls were built in foundation trenches cut into a layer of colluvium, and they shared the same construction in limestone rubble bonded with earth. Bonding was noted at all intersections. A compact crushed limestone surface was observed in the area defined by walls 10013 and 10050, and another compact surface made of clay and limestone fragments abutting walls 10078 and 10013 may have belonged to a street.<sup>13</sup> Deposits connected to these walls did not contain datable finds, but they clearly precede construction datable to the Middle Imperial phase.

## MIDDLE IMPERIAL PHASE

Remodeling in the area involved the removal of a portion of wall 10063. The remainder of the wall and fill in the robbing trench were covered by a compact layer of crushed limestone and silt (context 10004) with pottery belonging to the Middle Imperial phase. Foundation trenches for several walls cut into 10004, especially wall 10003, to which walls 10005 and 10010 are likened in date on the basis of pier-and-panel construction technique, which sets them apart from walls of the previous building phase in this trench. The sequence is confirmed by the position of wall 10005 on top of parts of walls 10050 and 10063. Based on its position between walls 10003 and 10005, layer 10004 may have functioned as a surface for a street oriented north to south.<sup>14</sup> At the northwestern edge of wall 10010, a threshold block marked the position of a doorway. It is likely that the doorway led onto a street, but robbing destroyed surfaces south of wall 10010. Nevertheless, it appears that this street and the north-to-south street intersected near the center of Trench 10.

A square latrine large enough to accommodate up to four people was built near this intersection (Plates 3–4, 6–7).<sup>15</sup> Part of wall 10078 was removed to make way for the southwest side of the latrine, which used part of wall 10010 for its southwest wall, piers in the pier-and-panel construction of wall 10010 marking two corners of the latrine. The latrine's southeast and northwest walls abutted wall 10010. These and the latrine's northeast wall were constructed of limestone rubble bonded with lime mortar. A rendering of waterproof cement coated the interior sides of all four walls. A doorway at the south end of the southwest wall gave entry into the latrine chamber via two stone steps.<sup>16</sup>

The floor of the latrine had a compact leveling layer of rubble for a foundation (context 10074). It was paved with 27 terracotta tiles resting on silt and bound on the northeastern and southeastern sides by a stone ledge (Plate 6).<sup>17</sup> The stone ledge had a shallow runnel for water and 11 rectilinear sockets to secure wooden seats. Between the ledge

and the exterior walls, a sunken channel for refuse was 30 cm wide and 50 cm below the level of the latrine's tile floor. Waterproof cement lined the walls of the refuse channel and tiles sealed its floor.<sup>18</sup>

A constant supply of water entered the latrine from the southwest through channel 10045. This was composed of specially made U-shaped limestone blocks lined with waterproof cement and covered with tiles (Plates 7A, 7D).<sup>19</sup> The channel ran along the outside of the latrine's northwest wall and then turned to enter the latrine by means of two terracotta pipes. A rubble panel of wall 10010 had been removed to accommodate the water channel, which ran across the top of wall 10078. Alterations to accommodate the water channel also included the addition of a new panel of rubble between existing piers in wall 10010.<sup>20</sup> A vertical pipe in the new panel of rubble channeled rainwater from the roof into the latrine. A second, constant supply of water may have fed the channel from the south, but robbing activity south of wall 10010 destroyed any evidence for this.<sup>21</sup>

Water entering the latrine was diverted in two directions: some flowed through channel 10045 directly into the refuse channel; some entered a stone basin in the southeastern corner of the latrine via a pipe embedded in a plaster on wall 10010 (Plate 7E). In addition to an overflow, the basin had outlets to the refuse channel and runnel. Water in the runnel eventually entered the refuse channel via small channels cut into the ledge on the northern corner of the room (Plate 8A–B). The refuse channel was emptied through drain 10040 at the base of the latrine's eastern corner (Plates 5B, 8A). Robbing east of wall 10017 destroyed evidence for the drain's destination.<sup>22</sup>

Datable surfaces outside the latrine were scarce because of robbing activity. Wall 10010 appears to belong to the Middle Imperial phase (perhaps as early as the second century A.D.), and serves as a terminus post quem for the latrine. Renovations took place in the first half of the third century A.D. The refuse channel was filled with silt, either from neglect or a deliberate episode of backfilling, and covered over with used roof tiles (Plate 7C).<sup>23</sup> The new tile floor above the refuse channel was now only 10 cm below the level of the tile floor inside the latrine. The intended functionality of the renovated structure is not clear, but the latrine cannot have functioned as such following the burial of the refuse channel. The small size of the room allows for few suggestions beyond storage. The fill inside the refuse channel contained a bone pin fragment (B9), a copper ring (BR141), and two coins dating to the reign of Gordian III (C72, C73). The renovation appears to have occurred just before the Sasanian attack of A.D. 252/253.

Evidence for violent destruction is lacking. At some point the structure was abandoned and covered by colluvium (context 10036). The absence of destruction debris could be an indicator that the Sasanian attack on Zeugma, so vividly preserved in thick deposits of burning and collapse in trenches to the west, was focused on the city center and spared the periphery of town.

#### LATE IMPERIAL PHASE

A surface abutting the north face of wall 10010 provides evidence for a modest occupation of the area in the late fourth century A.D. or later (context 10033). A make-up layer (context 10026) under the surface contained a copper alloy object, perhaps an internal part of a water pump stopper (BR170), and an iron split spike loop (IR487). A layer of rubble beneath this (context 10034) contained an unidentifiable fragment of lead (SF 4009) and two coins, a Gloria Romanorum dating to A.D. 364–375 (C208) and a residual coin of Augustus (CI10). It is not clear how long this surface was in use before it was buried by colluvium (context 10032). To the southeast, wall 10062 is assigned to the Late Imperial times by virtue of its relative position to earlier walls 10050 and 10005.

#### CONCLUSIONS

The latrine found in Trench 10 is a small but well-preserved example of a public toilet (*forica*). Although spacious and luxurious examples of *foricae* can be found all over the Roman Empire during the second through fourth centuries, the example in Trench 10 is considerably more modest.<sup>24</sup> Its square plan adheres to the most typical form of public toilet found throughout the Roman world in all periods. Its superstructure, now missing, probably would have included a slanted roof and windows for ventilation.<sup>25</sup> Most latrines had a small vestibule separating the latrine chamber from the street. No such feature is found in our latrine, but the seats were located to the left of anyone entering the chamber, thereby allowing for a modicum of privacy.<sup>26</sup> Typical of latrines, the seats were wooden and suspended over a refuse channel flushed by a constant flow of water. Water in the runnel in front of the seats allowed for hand washing, for rinsing the infamous sponge stick (a communal amenity), and for washing away spillage.<sup>27</sup> The stone basin in the corner is somewhat unusual, but presumably allowed additional opportunity for washing.<sup>28</sup>

Although many *foricae* of imperial times could accommodate 50 to 60 individuals, the latrine in Trench 10 was probably intended to hold no more than four at a time, and this begs the question of whether this was a public latrine at all.<sup>29</sup> *Foricae* were usually found in strategic places that enjoyed much public traffic, near fora, by theaters, and along streets. The need for a continuous flow of water was cause for placement of latrines near baths. It has been suggested that the latrine belonged to an unpublished bath about 100 m to the northwest.<sup>30</sup> The distance between the bath and the latrine does not rule out joint functionality, but a physical connection between these structures must presume a bath of rather inordinate size for what was probably the edge of town. In favor of a connection are flue tiles found in the robbing trench of wall 10063 (context 10064). Parts of a slightly larger latrine were brought to light to the east of Trench 2 by wave action along the shoreline of the Birecik reservoir (Plates 157, 159A). This latrine is similar in plan to

the latrine in Trench 10, and collapsed sections of vaulting prompted suggestions of a bath in the area.<sup>31</sup>

The conversion of the latrine in Trench 10 to another function is curious but may have come about from changes to the city's water supply in the years leading up to the Sasanian attack of A.D. 252/253. The latrine in the House of the Fountain in Trench 11 also went out of use at this time. The evidence for fourth-century occupation in Trench 10 provides a general indication for an eastern limit of settlement at Zeugma following the Sasanian attack.

### Trench 2

Four separate properties are discernable in this trench, named for features discovered within and located on three different rock-cut terraces, each originally probably 10–13 m wide, breaking what must have originally been a precipitous gradient down to the Euphrates (Plates 9–49). The House of the Pelta Mosaic is located on an upper terrace to the northwest. The House of the Peopled Plaster was built on a slightly lower terrace exposed on the southwest side of the trench. The House of the Bull and the House of the Helmets occupied the lowest terrace discovered, on the north and east sides of the trench. Only fractions of each property were uncovered, with additional rooms left unexcavated beyond all trench profiles. The House of the Helmets and the House of the Bull were the most extensive, each including a courtyard surrounded by rooms with mosaics and painted wall decoration. An alley separated these properties, and the east side of the House of the Bull appears to have bordered a street. The noteworthy state of preservation in the rooms of these houses uncovered in 2000 is certainly due to their location in the shadow of rock cut terraces, set back from the river on the southern edge of the property, where original deposits that sealed the homes in the sack of A.D. 252/253 were protected from cycles of colluviation and erosion. The state of preservation in the House of the Peopled Plaster and the House of the Pelta Mosaic is poorer, because the rooms that were uncovered occupied the northern edges of the higher terraces, where exposure to erosion was greater. Trench 2, like Trench 9, preserves some of the best evidence for the events of A.D. 252/253. Unlike other parts of the city, with the exception of the occasional robbing trench, no part of Trench 2 was disturbed by building or occupation in later periods. I discuss the phasing of each house separately and then summarize them at the end of the section for Trench 2.

#### *The House of the Pelta Mosaic*

Two areas of excavation were assigned to this house, Room 2A, enclosed by at least three walls, and a larger area to the south, where a mosaic with peltae gives the house its name (Plates 10, 20C, 21A). A drainage system separated these areas, and this provides some indication that Room 2A may have belonged to a separate property, but too little of this area was excavated to be certain.

#### EARLY AND MIDDLE IMPERIAL CONSTRUCTION AND DECORATION

**ROOM 2A:** The walls of Room 2A were made of roughly cut limestone blocks bonded with earth. Information on phasing was not forthcoming from deposits excavated here, but the pier-and-panel masonry of the room's southeastern wall is consistent with Early Imperial construction elsewhere at Zeugma. The excavators found several sections of a black-and-white mosaic (M1) on a mortar surface near the center of the room (Plate 20B). A deposit removed from under and alongside this mosaic (context 2128) contained ceramics of the first century A.D. (Plate 13A).<sup>32</sup>

**AREA SOUTH OF ROOM 2A:** Two fragmentary mosaics were found here. Nearby architecture could not be associated with the pavements, but walls 2553 and 2148 make sense as the southeastern terminus for this area, perhaps as party walls with the House of the Helmets and the House of the Peopled Plaster, respectively. Mosaic M2, the larger of the two fragments discovered, had a lozenge pattern between double-headed axes and peltae (Plates 20C, 21A). Parallels for these motifs date from the late second to mid-third century A.D., and this suggests that the mosaic decoration belongs to a phase of renovation in the Middle Imperial phase, parallel to the refurbishments that occur in the adjacent houses to the east. Mosaic M3 also had a geometric design (Plate 21B). The eastern edge of this pavement was curved and slightly raised, indicating that it may have once abutted a now-absent column base. Mosaic pavements around colonnades would have been consistent with the appearance of the House of the Bull and the House of the Helmets, but can't be proven for the House of the Pelta Mosaic. Deposits with material for dating the mosaics in this house were not recovered. Given Dunbabin's identification of the motif in M2 as one appropriate for a vestibule, and the likely appearance of mosaic M3 within a colonnaded space, it is conceivable that the excavators revealed the front of a house on a terrace that overlooked the House of the Peopled Plaster and the House of the Helmets below to the east, and that the heart of the property was located beyond the limit of excavation to the west.

**DRAINS:** Evidence for two drains came to light between the areas described above, more or less parallel to the southwest wall of Room 2A. Drain 2004 was built from limestone slabs and used roof tiles, with an interior plastered with waterproof cement; there was no trace of a cover.<sup>33</sup> The west part of the drain was covered by a mortar surface (context 2136 / 2137), and the east end emptied into an unexplored shaft with a mouth that measured 45 × 37 cm across. A shaft of this size is consistent with others at Zeugma that opened into rock-cut cisterns. The drain may have functioned to convey water from the roof of this property into a cistern. Drain 2560, also made from limestone blocks, approached from the south and met drain 2004 at a right angle. This drain appears to have conveyed another

source of runoff into the presumed underground cistern via drain 2004.

#### *The House of the Peopled Plaster*

Only the northeastern part of this house was excavated, the part that rested above a rock-cut terrace overlooking the House of the Helmets to the north and the House of the Bull to the east (Plates 10–14, 22A–E). Painted plaster walls featuring human figures, for which the house is named, distinguished rooms in this house.

#### EARLY AND MIDDLE IMPERIAL CONSTRUCTION AND DECORATION

**EARLY WALLS:** On the crest of the rock-cut terrace that defined the northeastern limit of the house, walls of limestone rubble bonded with earth had been built in shallow rock-cut foundation trenches (walls 2298, 2227, 2281) (Plates 10, 21C). Parallel to these and slightly to the northeast, wall 2258 formed the southwest wall for the courtyard of the adjacent House of the Helmets on the rock-cut terrace below. Rubble in the gap between these walls (wall 2259) may have once formed a buttress for the northeast walls of the House of the Peopled Plaster perched on the edge of the terrace. At some point wall 2298 appears to have been deliberately removed. This may correspond to an effort to expand the House of the Peopled Plaster to the northeast by just less than 2 m. The phasing is unfortunately unclear.

**ROOMS 2B, 2C, AND 2D:** The excavators revealed one complete room and parts of two others in this house (Plates 12, 13B, 14A, 22A–E). Room 2B was not completely excavated; several layers of painted plaster were found adhered to the inner faces of its walls, thus indicating that this room had been decorated more than once.<sup>34</sup>

Wall 2265 was built from primarily ashlar blocks, and it separated Rooms 2C and 2D. Within Room 2C the excavators found two leveling layers installed on bedrock and covered by a floor.<sup>35</sup> The floor was traced across much of the room, even the southeast side, where it rested above a vaulted room beneath Room 2C—a room only accessible from Room 2K in the adjacent House of the Bull. Finds associated with the floor in Room 2C include a lamp (LI63) and coins of Nerva (CI12) and Trajan (CI31). Mosaic flooring was not found in the room, but the walls were decorated with painted plaster (Plate 12). Notable was the motif found on the southwest wall of the room (wall 2201), depicting two robed figures on a red background (fresco 2257) (Plates 14A, 22B–C). Bergmann has identified this as the waiting-servant motif, with parallels in the second century and later. Like the House of the Pelta Mosaic, the House of the Peopled Plaster appears to have had its architectural plan in place in the Early Imperial phase, before the embellishment of rooms with decoration, in this case, wall painting, in the Middle Imperial phase.

To the west the excavators uncovered the northern part of the house's largest known interior space, Room 2D.

Walls on the northwest and northeast side of this room were built of ashlar masonry with rubble infill. As in Room 2C, a series of leveling layers had been deposited on the rock-cut terrace and covered by a floor. The deposit on bedrock (context 2495) contained five loom weights (LW3–7). On top of this, pottery from context 2300 dated to the Flavian period,<sup>36</sup> and above it in context 2279 the excavators found a coin of Trajan (CI29), a copper alloy needle (BR53), a copper alloy plaque (BR77), and another loom weight (LW2). The latest datable material recovered from under the floor shows that this room need not date later than the early second century A.D. The floor above these leveling layers (context 2178) was very hard and stretched across the entire room from northwest to southeast, with a spindle whorl (SW55) and the occasional tile fragment embedded within. The floor was disturbed along the northeast side of the room by robbing activity dated by pottery to the fifth and sixth centuries A.D.<sup>37</sup> This obscures the sequence of earlier events in this room, which appear to include the removal of wall 2298 to accommodate an expansion of the room to the northeast.

#### DESTRUCTION

Rooms 2B, 2C, and 2D were filled with destruction debris with few datable finds. In Room 2D, context 2177 contained pottery that need not date later than the early second century, but other objects from the same context are consistent with remains from Sasanian destruction debris found in the adjacent houses, including several nails and iron objects, perhaps from a wooden chest or a door (IR219, IR220, IR503, IR509, IR510). A fair number of tesserae in this deposit betray either the presence of mosaic pavements in unexplored rooms of the house to the south or else disturbance of context 2177 in Room 2D from robbing activity. Still, despite the absence of sealed destruction deposits, there is no clear indication that the House of the Peopled Plaster went out of use earlier than its neighbors. Indeed, the content and preservation of wall painting in situ on several walls suggests that the house continued to be occupied until the Sasanian sack of A.D. 252/253.<sup>38</sup>

#### *The House of the Helmets*

This house owes its name to the discovery of one near-complete helmet and fragments of two other helmets in destruction debris in a central courtyard. Only the southwest part of the house was excavated (Plates 10, 14B–16, 22F–32). The plan includes a peristyle court with access to rooms on three sides. Behind the courtyard's southwest corridor, the rock-cut terrace wall for the House of the Peopled Plaster formed the house's southwestern limit. Access from the outside was discovered via Room 2I, which linked the peristyle court to a dead-end alley between this house and the House of the Bull to the southeast. Principal access to the house probably lay in the unexcavated zone to the north. Two distinct building techniques are preserved in the walls of this house: well-cut ashlar bonded with earth,

and pier-and-panel construction with alternating piers of ashlar and panels of rubble in an earthen matrix.

#### SELEUCID PHASE

This house preserves the earliest building activity known from Trench 2, and it seems to have been the core around which the neighboring properties were arranged. The earliest phase of the house involved a peristyle court built up against a rock-cut terrace, with ancillary rooms to the north and east. Later activity added new rooms to the west and mosaic pavements to existing rooms. Evidence for dating the earliest constructions to Seleucid times is focused on ashlar wall 2021 (Plate 16A), which rested on a rough foundation wall (context 2505). A leveling layer (context 2514) abutted the foundation wall on the northeast, where it supported a floor at the same elevation as the base of wall 2021. The leveling layer contained small fragments of Hellenistic pottery reasonable enough to suggest a Seleucid date for construction of wall 2021 and its foundation. On the basis of similar construction technique, the peristyle and adjacent walls 2079 and 2020 also belong to this phase (Plates 10, 15B, 24E).<sup>39</sup> The location of the peristyle court parallel to the rock-cut terrace wall that forms its southwestern limit shows that the terracing systems on which houses in this area were built belong to the earliest phases of settlement.

#### EARLY IMPERIAL PHASE

This phase involved renovations to existing walls of the house and the addition of new walls to rooms flanking the peristyle court. All new construction used pier-and-panel masonry. The date for this building activity came to light in Room 2I, where a make-up layer for a surface dated to the Flavian era (context 2283 described below).

**ROOM 2E:** This room was not fully excavated. Its southwestern wall had two doorways leading into Room 2F, and it abutted wall 2131 in the neighboring House of the Pelta Mosaic.<sup>40</sup> Both walls were built in pier-and-panel technique, but the relative sequence of construction evident at this juncture merits a subdivision of the Early Imperial phase, with the walls of Rooms 2E, 2F, and 2G occurring in the later of the two subphases (Plate 10). Rendering on the north face of wall 2078 provided some indication that the room may have been adorned with painted wall plaster in the manner of Room 2G discussed below.<sup>41</sup>

**ROOM 2F:** Room 2F was 7 × 2.5 m in size, and it had at least four doorways: the two mentioned above leading into Room 2E, as well as one to the south into Room 2G and one to the east into the peristyle court. Wall 2079 of the house's original Seleucid phase formed the room's southeastern side, and the relationship between old and new demonstrates how house plans at Zeugma grew in agglutinative ways.<sup>42</sup> The long walls of Room 2F had slightly different orientations, so the room was narrower at the northwest (Plates 10, 24A, 15A). The room's southwestern wall (2076)

matched the orientation in the House of the Pelta Mosaic, but wall 2078 was aligned with the Seleucid-period walls to the southeast. The configuration of this room provides additional support for assigning the group of rooms on the west side of the House of the Helmets to the second half of the Early Imperial phase at Zeugma. In general, these rooms were devoid of finds, although the excavators noted the presence of a possible hearth (context 2194) composed of broken roof tiles built on top of a compact floor abutting the southwest wall of Room 2F (context 2193).

**ROOM 2G:** This room measured approximately 3.7 × 4.6 m. Its walls were all made of pier-and-panel construction, with the exception of the southeast wall (2156), which had ashlar piers flanking two doorways leading into the peristyle court. Like Room 2F, this room had a trapezoidal plan, in this case determined by its juxtaposition between two pre-existing features: the peristyle court to the east and the rock-cut terrace for the House of the Peopled Plaster to the south. Excavation stopped at the level of an earthen floor (context 2243), which contained a copper alloy ring (BR126) but no datable finds or pottery. The floor probably belonged to the same phase that saw construction of the walls, but a later date should not be ruled out, especially in light of evidence for painted-plaster decoration on three of the room's walls with a clear *terminus ante quem* of A.D. 253 (Plate 23).<sup>43</sup>

**PERISTYLE COURT:** The full extent of the House of the Helmets is not known, but the portion excavated suggests that the open-air colonnaded court built in Seleucid times may have continued to be a locus for the house in the Roman period. The peristyle consisted of eight Tuscan columns of limestone on a stylobate raised about 10 cm above the courtyard pavement (Plates 26–27). Drains leading from the pavement of the court to a nearby rock-cut cistern suggests that the court was not roofed. The columns surrounding the court are presumed to have supported hip roofs over the corridors that sloped down toward the center of the court, but the exact configuration is not known. The southwest corridor had a party wall with the House of the Peopled Plaster; this was built in the pier-and-panel technique along the northeastern edge of the rock-cut terrace that divided these properties. The northwest corridor had three doorways leading to Rooms 2F and 2G, and the southeast corridor gave access to Room 2I and an alley. To the northeast, the court connected to a long narrow loggia (Room 2H). It is conceivable that the original design of this space had four corridors around a central court, and at some point in Roman times the northeast corridor was transformed into a loggia.

The columns were made of separately carved drums joined by a single dowel in the center drums (A17, A18, A20, A25) (Plates 25E, 26C). Moldings for capitals and bases were carved on the highest and lowest drums in each column, respectively. The construction date for the columns

is difficult to determine. A *terminus ante quem* of A.D. 252/253 is certain, and they were probably in place when mosaic pavements were installed around them sometime in the mid-second or early third century A.D. (mosaics M4–6). A date in the Early Imperial period seems reasonable, probably no later than the addition of Rooms 2E, 2F, and 2G to the house. An earlier date is suggested by the unfluted Tuscan order, especially since Corinthian capitals and fluted shafts seem to have been in vogue among houses renovated closer to the date of the Sasanian sack. Nor is the date for the stylobate clear, for the Middle Imperial mosaics installed on all sides of it were not lifted and foundation deposits not recovered. Given the apparent role of the peristyle court as a determinant for the arrangement of space in the house, a Seleucid predecessor for the peristyle should not be ruled out. In the absence of specific phasing, a Seleucid date is assigned to the peristyle on the phase plan, with the understanding that it was probably renovated at some point by its many generations of occupants.

Facilities for water storage in the peristyle court are also dated to the Early Imperial phase, for there is no indication that they were installed later than the mosaic pavements placed over them in the mid-second or early third century A.D. (mosaics M5–6). A shaft cut into the bedrock under the stylobate to the south of the central column on the southeast side of the court drained water from the central court (drain 2219) (Plate 28B). The rock-cut shaft was not completely excavated, but it probably connected to a subterranean settlement tank below floor level in the southwest corner. Another drain (drain 2214) on the south side of the court connected to the same tank (Plates 29B–C). The tank's floor and walls were cut from bedrock, but parts of the vault were made of mortared rubble (Plate 29D). The interior preserved traces of waterproof mortar. A terracotta pipe built into the tank's southeastern wall may have connected to the water system discovered in the alley to the southeast (discussed below). This pipe may have functioned as an overflow, but its role as an additional intake from rooftops to the southeast could not be ruled out. A thin stone slab was discovered in situ inside the northwest side of the tank (Plate 28F). It had been pierced with holes to allow water to exit the tank and enter a rock-cut cistern, the mouth of which was located in a niche in wall 2258. The stone slab would have trapped sediment and impurities at the base of the tank, with filtered water filling the cistern through holes in the slab positioned several centimeters above the tank's floor.<sup>44</sup> The rock-cut cistern was not excavated, but, like others at Zeugma, it was probably bottle-shaped.<sup>45</sup>

**THE EASTERN ROOMS:** The original configuration of this space seems to have involved one large room connected to the peristyle court by a doorway and bound on the southwest by wall 2021 and on the northwest by wall 2020, both apparently Seleucid-era constructions. Access to an alley was allowed through wall 2021. The northeastern limit of

this space was not excavated. At some point the space was reduced to create at least two rooms, for vestiges of a partition wall in rubble construction not characteristic of Seleucid building at Zeugma (wall 2339) came to light beneath floors from refurbishments datable to the second part of the Early Imperial phase. Wall 2339 therefore appears to belong to the first part of the Early Imperial phase. The second part of the Early Imperial phase involved partitioning in the opposite direction by wall 2022, a pier-and-panel construction built on a rough foundation wall founded on bedrock.<sup>46</sup> It abutted the older ashlar wall 2020 (Plates 10, 32A). Floor deposits inside the new space to the southwest of the wall 2022, designated Room 2I, provide the date for the partition. On top of the Seleucid-period surface associated with wall 2021 (floor 2513), the excavators found a burnt layer (context 2512) beneath a make-up layer (context 2283) for a floor traceable throughout the area defined by walls 2021 and 2022 (floor 2195).<sup>47</sup> The latest datable pottery in the make-up layer is Flavian.<sup>48</sup> At the same time, the doorway in wall 2021 was blocked (Plate 30A). Walls 2273 and 2504 also belong to this phase, especially due to their pier-and-panel construction technique, although their role is not clear. The new configuration therefore involved two smaller rooms to the southeast of the peristyle court. A doorway on the northeast side of each room linked Room 2I to the peristyle court and the unnumbered room to the northeast to Room 2H.

**THE ALLEY:** In the Seleucid period the House of the Helms seems to have had access to an alley to the southeast through a doorway in wall 2021. When this doorway was blocked in the Early Imperial phase, access to the alley appears to have been maintained through a doorway into the peristyle court at the northwest end of the alley. A stone-lined conduit in the alley was covered in limestone capstones and coated inside with waterproof cement (drain 2211) (Plates 32B–C). A cylindrical limestone drain head (context 2305) cut into bedrock near the western corner of the alley is positioned at the property line between the House of the Peopled Plaster and the House of the Bull (Plate 32D).<sup>49</sup> The downspout was missing, but the position of the drain head against wall 2407 shows that it probably functioned as part of a refuse conduit for the House of the Bull, the House of the Peopled Plaster, or both. A latrine in the House of the Bull is not connected to this conduit. Nonetheless, the downspout in the alley would have been accessible to upper stories of both houses, and the turn of the conduit to the northeast at the eastern limit of excavation shows that the conduit carried waste away from these properties. Surfaces connected to the conduit were not dated by deposits, and the fill inside contained ceramics dating to the third century.<sup>50</sup> Whereas the position of wall 2021 suggests that the alley itself may have been an original feature of Seleucid-era settlement here, the principal function of the conduit served the Early Imperial properties to the southwest. At some point the occupants of the House of



the Helmets may have tapped into the conduit as an overflow device for the cistern in the peristyle court described above.

#### MIDDLE IMPERIAL 1 PHASE

In this period several rooms of the house were aggrandized by the addition of mosaics and wall painting. On the basis of style, the pavements are dated from the mid-second to the early third century.<sup>51</sup> Large areas of a white mosaic with the occasional colored tessera (mosaic M5) were found in the corridors of the peristyle court (Plates 11, 26B). The tesserae were laid in mortar level with the top of the stylobate. A similar mosaic was installed on the stone-built ledge in front of the niche with the cistern in the west corner of the peristyle court (mosaic M5A). Mosaics in geometric themes were added to the space within the colonnades and to Room 2H, mosaics M6 and M4, respectively (Plate 11). Evidence for wall painting was scarce in all spaces where mosaics were well preserved, although it is hard to believe that these spaces were not adorned with mural decoration. The best evidence for wall painting in the House of the Helmets belongs to Room 2G, where at least three walls were decorated with white panels adorned with vegetal motifs framed by yellow and red borders (Plate 23). The specific date for the wall decoration is uncertain. The paintings adorned the walls at the time of the Sasanian attack of A.D. 252/253; a date for the paintings in the Middle Imperial period is consistent with this terminus and with the addition of mosaic decoration to adjacent rooms.

Also in this phase, the doorway between the peristyle court and the alley was modified with the addition of a threshold block fashioned from a reused engaged column of Numidian breccia (Plate 30A).<sup>52</sup> This block abutted mosaic M5 in the corridors of the peristyle court, where a small block with a square cutting set into the pavement perhaps served as a pivot for a door (Plate 29F). Inside the alley, abutting the eastern side of the new threshold block, the excavators found a small patch of mosaic M7, composed of black and white tesserae and destroyed by robbing on its northeast side (Plate 30B). To the south, the mortar of the mosaic bedding (context 2049) had been spread up against a flattened bedrock surface; to the east, the mosaic itself abutted two curbstones, apparently designed to separate the paved area from the limestone conduit to the southeast. The evidence for a new door and the mosaic pavements on both sides of a new threshold contribute to the evidence of the house's other new mosaic pavements for a large-scale effort to beautify the house. Lack of evidence for any other portal into the house from the outside makes it difficult to interpret the meaning of the renovation to the alley door beyond the intention to formalize, and perhaps fortify, access to the peristyle court.

#### MIDDLE IMPERIAL 2 PHASE

Shortly after these improvements the House of the Helmets seems to have gone into decline. Rooms were subdivided,

and decorated spaces once used for leisure were given over to food storage and preparation. Although these changes cannot be precisely dated, they occurred after the installation of the mosaic pavements and before the house's destruction in A.D. 253.

A make-up layer (context 2191) on the Early Imperial floor of Room 2F consisted of loose, orange-brown silt. It contained residual late Hellenistic and Early Imperial pottery, but also buff cooking wares that are typical of the mid-third-century destruction deposits.<sup>53</sup> Above this, earthen floor 2130, traced throughout the room, contained pottery of similar date and three coins of the third century (C21, C33, C50), the latest datable to A.D. 244–249. A small circular pit filled with burnt debris, perhaps a hearth (context 2184), had been cut into this floor. A fragment of an iron padlock case (IR332) and a coin of Gordian III (C85) were found inside the pit. The new floor and the pit appear to date between A.D. 244 and the final destruction of the house a decade later.<sup>54</sup>

Room 2H was isolated from neighboring rooms on at least three sides by mud-brick filling added to doorways. Spaces between the columns on the southwest side of the room were blocked by walls of rubble limestone bonded with earth built directly on the stylobate (Plates 10, 24B–25D). At a height of about 60 cm the rubble walls were capped by a leveling course of reused roof tiles, above which the walls continued to rise in courses of mud-brick. All walls of the room, old and new, were covered with a mud-based rendering (context 2372), which covered over existing wall plaster in some parts of the room (context 2305). The only access to the room at this time must have been from the northern, unexcavated, side of the room.

In conjunction with the complete separation of Room 2H from the peristyle court, a trough-shaped mud-brick shelf was built on top of mosaic M5 up against the new blocking wall at the northeast end of the southeast corridor (Plates 16B, 28B–C). Vessels and a stone quern were found resting on this shelf at the time of destruction (see below), and it seems to have been designed for food preparation and storage. In the northwest corridor, an earthen floor, perhaps merely an accumulation of occupation debris, was discovered on top of mosaic M5 (context 2144). The peristyle court was further modified by the blocking of the southernmost of the two doorways into Room 2G (Plate 15B).

#### DESTRUCTION

Throughout the house the excavators found clear evidence for widespread destruction by fire (Plate 31). A deep destruction layer filled with charcoal, ash, mud-brick, roof tiles, and ashlar blocks covered the western suite of rooms.<sup>55</sup> A number of coins from these deposits show that the destruction took place no earlier than A.D. 249, and it can hardly be doubted that the fire belongs to the sack of the city by Shapur I in A.D. 252/253.<sup>56</sup> Among the more interesting finds mixed throughout the destruction debris

were fragments of burnt textiles, cordage, and shoe soles, discovered in Rooms 2F and 2G.<sup>57</sup>

Destruction deposits also covered the peristyle court and Room 2H, and here they sealed occupation debris on floors at the time of the sack (Plate 25E). A pithos with an amphora inside was found directly on mosaic M4 in Room 2H (Plate 24B–D).<sup>58</sup> The pithos contained vestiges of walnuts and as many as 20 pomegranates.<sup>59</sup> The fruit and nuts were fresh when the fire that destroyed the house carbonized them—they probably represent food stored in anticipation of the Sasanian incursion. From the burnt layer resting on mosaic M4 the excavators recovered additional textile fragments and two pieces of jewelry: an iron finger ring (IR79) and a copper alloy pendant (BR29).<sup>60</sup>

In the peristyle court, a basalt quern and four vessels, including one containing seeds, were found on the mud-brick shelf (Plate 28C).<sup>61</sup> Parts of two more vessels rested on mosaic M5 in front of the shelf (Plate 28D).<sup>62</sup> These were covered by mud-brick collapse and destruction debris (contexts 2025 and 2023).<sup>63</sup> Particularly rich in finds was context 2008, which overlay mosaic M6 in the peristyle's open-air court. This deposit included pieces of military equipment such as a near-complete iron helmet (IR1), fragments of two other helmets (IR2–3), an iron spearhead, sword blade fragment, and knife (IR14, IR33, IR133), as well as iron scale-pans for a balance (IR119–120).

In the western corner of Room 2I the excavators found a group of ten vessels in situ in the corner created by walls 2021 and 2357 (Plate 30C).<sup>64</sup> These vessels appear to have been abandoned at the very time of the Sasanian attack.

#### LATE IMPERIAL ROBBING

There is no evidence for the reoccupation of the House of the Helmets after its mid-third-century destruction. A few intrusions of Late Imperial pottery appeared in the upper destruction levels in Room 2F (contexts 2039, 2080, 2012), presumably deposited there during robbing for building materials.

#### *The House of the Bull*

This house is located at the southeastern corner of Trench 2 (Plates 10, 17–20A, 33–49). Its known limits are the House of the Peopled Plaster to the northwest and the alley to the northeast shared by the House of the Helmets. Only the northern section of the house was excavated, and this consisted of a courtyard surrounded by rooms on at least three sides. Construction of the walls included pier-and-panel masonry and some areas of mud-brick. Overall, parts of eight rooms were excavated: all but one (Room 2O) was paved wall-to-wall with mosaic, and all but one (Room 2P) preserved evidence for vivid decoration in paint across its walls.

The excavators did not recover any deposits from the house to assist with dating construction or renovation. Every room had a mosaic floor, but deposits recovered below the only pavement that was lifted were of no use for

phasing. Nor were foundation trenches for the walls part of the investigations. Evidence suggesting habitation by at least Trajanic times is provided by floor 2186 in Room 2C in the House of the Peopled Plaster, which covered over part of the vaulted room (Room 2L) in the House of the Bull (Plates 10, 18A, 34C). This, and the pier-and-panel masonry in most of the house's walls, is consistent with a date for the house in the Early Imperial period. The mosaic decoration is consistent in appearance with pavements in the House of the Helmets, and, like its neighbor, the House of the Bull appears to have undergone substantial redecoration in the Middle Imperial period. The blocking of a colonnade in order to separate rooms in the House of the Bull further suggests that the architectural history of this house is more or less parallel to that known for the House of the Helmets. Like its neighbors, the House of the Bull was destroyed in the Sasanian attack and not rebuilt.

#### EARLY IMPERIAL PHASE

ROOM 2J: This room measured 3.1 × 4.3 m. Its walls were founded on bedrock and built of pier-and-panel masonry, with panels of mortared rubble in rough limestone (Plates 33–34).<sup>65</sup> The preserved parts of the upper reaches of these walls were mud-brick. A doorway in the northeast wall was framed by large ashlar piers (contexts 2396 and 2395). A picture of a bull was incised on the northeast face of the southeast jamb (ashlar 2396), and this gives the house its name (Plate 37A). Wall 2389 on the northwest preserved painted plaster (fresco 2399) with panels articulated in white, yellow, red, and green (Plate 33A). This decorative scheme is probably associated with the room's initial phase of inhabitation in Early Imperial times. Discovery of a related floor level was out of reach owing to a Middle Imperial mosaic pavement that sealed the room and was not lifted during the excavations.

ROOM 2K: Beyond the doorway on the northeast wall of Room 2J, the floor level dropped down about 1 m to the floor level in Room 2K, a room 3.26 × 3.14 m in size (Plates 34C–36). The drop in elevation from southwest to northeast is consistent with the lay of the land and the orientation of bedrock terraces on which this and neighboring houses were built. The room's southeast and southwest walls were a mix of ashlar masonry and mud-brick. A broad doorway leading into Room 2M had a threshold with sockets for the insertion of wooden doorposts.<sup>66</sup> The lower part of the northeast wall was a raised ledge of stone cut from bedrock, well-finished on the side facing Room 2K, but rough on the side facing the alley. The entry to the vaulted Room 2L consumed almost all of the northwest side of the room (Plate 34C). Two pilasters (context 2402 and 2391) flanked the entrance and rested on a step leading down into Room 2L. Room 2K had later applications of painted plaster on its walls, but there is no indication for the decoration, if any, in the room during the Early Imperial phase.

**ROOM 2L:** Room 2L was not fully excavated (Plate 37C). Its floor was about 20 cm lower than the floor in Room 2K. The lower part of this vaulted room had been carved from the bedrock terrace on which the House of the Peopled Plaster was built, but its upper walls were made of ashlar masonry and its vaulted roof consisted of mortared rubble with tile in the aggregate. A trace of brickwork was preserved at the entrance to the room, on the southwestern pier (2391). This abutted the lower section of the vault and appears to be a vestige of a brick lining that may have supported the vault at the entrance to the room. As mentioned above, the vault supported the Trajanic floor of Room 2C in the House of the Peopled Plaster, and this provides a *terminus ante quem* for the construction of Room 2L.<sup>67</sup>

**ROOM 2M:** Room 2M, about 6.2 × 2.6 m in size, communicated with Room 2K and a courtyard to the southwest. A screen of two columns formed the boundary with the courtyard. The bases had a diameter of about 53 cm, and they appear to have been reused (Plates 37E–38). At some point the northeast and southeast walls were robbed. The location of each wall was determined by the presence of a robbing trench. Deposits in the trenches did not shed light on the date of the robbing activity. Most of the area was sealed by destruction deposits datable to the Sasanian attack, but a few intrusive objects in these deposits are probably to be connected with the removal of some walls in robbing activity at some point after A.D. 253.<sup>68</sup>

**COURTYARD:** This room was 6.8 × 6 m in size (Plates 39–40), and it was surrounded on all sides by a curb. The southeast wall had been robbed in the same event that had removed the southeast wall of Room 2M, discussed above. The southwest wall had broad ashlar piers flanking two doorways (Plates 39A, 40E).<sup>69</sup> In the south corner, a gap in the curb gave access to Room 2O, but the configuration of the walls and door for this space was not clear. Nor was the configuration of the room's roof, if it had one at all. There are no internal supports, as in the peristyle court in the House of the Helmets, but a distance of 6.8 m would not have been impossible to span with timber. The similarity of the architectural plan to the House of the Helmets — with a large square room opening onto a long narrow loggia through a screen of columns — suggests that the courtyard in the House of the Bull was also unroofed. An open-air design also explains the position of the curbstones, which may have been coterminous with eaves projecting into the room. Drain 2458 also suggests an open-air plan, for it could have channeled rainwater out of the room and into cistern 2331 to the southeast (Plates 41C, 46B–D). Like other cisterns at Zeugma, this was a large bottle-shaped rock-cut reservoir. The mouth was a limestone block with a circular aperture, 46 cm in diameter, with metal fittings in situ, perhaps to secure a cover, as well as parts of a chain, probably once connected to a bucket for hoisting water. The excavators estimated the depth of the cistern at about 8 m.<sup>70</sup> The

rock-cut neck had two openings for drains about 1 m below the mouth. The opening on the north probably connected to the courtyard via drain 2458; the one on the south probably connected to a feeder pipe discovered in excavations to the southeast in Rooms 2O and 2P.

**ROOM 2N:** The only surviving wall for this room was on the southwest side, and this preserved only a single course of ashlar masonry (Plate 42). Walls to the northwest and northeast had been robbed. The eastern side of the room formed the limit of excavation in Trench 2, where the excavators mention a possible street oriented southwest to northeast. Doorways were not discovered, although the space probably communicated with Room 2M and the courtyard, and, in later times, with a latrine installed in neighboring Room 2O to the south. A later period of renovation involved the installation of the only figural mosaic discovered in Trench 2.

**ROOM 2O:** This room measured 5.2 × 3 m (Plate 46A).<sup>71</sup> Walls to the southeast and southwest were robbed, presumably in the same robbing event that removed walls around Rooms 2M and 2N. Cistern 2331 appears to have been enclosed by a niche in the room's southwest wall, in the same manner as the cistern in the west corner of the peristyle court in the House of the Helmets (Plate 46). Two steps that survive in the northwest part of the room suggest that the floor level of Room 2O had been higher than rooms to the northwest and northeast. The earliest deposit found in the room was a colluvium layer on bedrock (context 2443). A terracotta pipeline (2485) had been inserted into this layer.<sup>72</sup> The water channel ran along the room's southwest wall. Its west end terminated at a square limestone drain head (context 2519) installed on a bedrock foundation cut.<sup>73</sup> A round hole on the top of the drain head probably marked the level of the room's floor, although a floor was not found. From the southern side of this drain head a water channel underneath the southwest wall of Room 2O connected to a water system in Room 2P (see below). The east end of pipe 2485 joined a limestone junction box (context 2362) outside the room to the southeast that served as a node for two other pipelines (Plate 47A).<sup>74</sup> According to the excavators, these pipes were outside the house and functioned as part of a street oriented southwest to northeast.

**ROOM 2P:** The size of this room is unknown because only the northeastern corner was excavated (Plate 47).<sup>75</sup> Robbing trench 2431 marks the location of the room's northeast wall, which was shared with Room 2O. At the base of the robbing trench the excavators found the rock-cut bedding for the water channel connected to the drain head in Room 2O. This channel connected to drain head 2536, from which another pipe continued to the northwest (drain 2507) and emptied into cistern 2331. The position of two drain heads on opposite sides of the same wall, connected by a water channel and then linked to a cistern, suggests that this wa-

ter system may have functioned to channel rainwater from rooftops on the eastern part of this house into the rock-cut cistern near the courtyard.

**STREET:** Traces of a street oriented southwest to northeast were found to the east of the House of the Bull. The street consisted of a rubble infill layer (context 2533) deposited over the water system mentioned above. A hard, gravelled surface (context 2532) was laid over this make-up level. If these layers in fact represent a street, then the House of the Helmets appears to have measured about 15 m across from northwest to southeast. The transverse dimension is unknown because the area to the southwest was not excavated.

#### MIDDLE IMPERIAL 1 PHASE

During this phase the house underwent substantial renovation. Like the adjacent House of the Helmets, these changes involved the addition of mosaic pavements and painted wall plaster in a unified program that involved black-and-white pavements with geometric designs beneath walls painted with rectangular panels articulated by interior lines and exterior borders in reds, greens and yellow. Garlands and vegetal motifs also appear. Notable here is the absence of the waiting-servant motif found, among other places, in the adjacent House of the Peopled Plaster and in Trench 13. At the very end of this phase, a latrine was installed inside Room 2O.

**ROOM 2J:** During this phase the floor of Room 2J was paved with mosaic M8, a geometric pavement dated stylistically from the late second to the mid-third century A.D. (Plates 33–34). It had been set in pink mortar (context 2469) that ran up to and over wall plaster painted with red and green motifs on white panels, with yellow and red borders along the bottom (context 2399). Also during this phase mosaic M9, a simple geometric design with extensive burning, was installed in the doorway between Rooms 2J and 2K (Plates 11, 34C).

**ROOM 2K:** Mosaic M10, an elaborate black-and-white geometric pavement, is dated by style to the Middle Imperial phase, and Dunbabin suggests that it may have been installed at the same time as mosaics M8 and M9 (Plate 35). Two layers of wall painting were found in the room (Plates 36, 37B). The earlier layer was rather thin, consisting of red and green decoration on a white background, and closely resembled the early layer of painting found in Room 2J. The excavators associated this layer of painting with the laying of mosaic M10, with the wall painting pre-dating the installation of the mosaic.<sup>76</sup> The painted plaster was later covered over by a second layer of plaster in the Middle Imperial 2 phase.

**ROOM 2L:** The vaulted room, only partially excavated, was also adorned with wall and ceiling painting and a geomet-

ric pavement, mosaic M11 (Plates 37C–D). As in the case of Rooms 2J and 2K, the walls of Room 2L were covered with two layers of painted plaster. To the same phase as the mosaic belongs a thin white plaster with red and green decoration. A thick layer of plaster painted purple-blue later replaced this.<sup>77</sup>

**ROOM 2M:** In this room the excavators found two mosaic pavements, one on top of another, both installed during the Middle Imperial phase (Plates 37E–38). Three deposits were found underlying the earlier pavement: A deep make-up layer of loose soil and limestone rubble (context 2122) was found under a leveling layer (context 2121). On top of these, mosaic M12 had been installed on top of a layer of mortar (context 2120). Unfortunately, only small traces of the mosaic were recovered, and material to help date the construction was absent. Its style, however, places it between the late second and the mid-third century A.D. Mosaic M12 was covered by a mud-brick leveling layer (context 2117), a concrete layer (context 2116), and a mortar footing (context 2115), and mosaic M13 was installed on top of these. The northern and eastern edges of the pavement were damaged when the adjacent walls were robbed, but it was found otherwise intact (Plate 38). The layers under this mosaic did not yield material to help date the installation. Like mosaic M12, mosaic M13 has been dated on stylistic grounds to the late second or mid-third century A.D. The repaving of the room with mosaic M13 appears to have involved the addition of a new limestone curb, 13 cm tall, along the southwest side of Room 2M. At the boundary with the courtyard, the curb ran up to the columns at shaft level and covered over the tops of the column bases (Plates 39A, 40A).

**COURTYARD:** Three mosaics were located in and around the courtyard. In the absence of foundation deposits and parallels for pavements with designs as simple as these, they are merely presumed to be more or less contemporary with the mosaics in adjacent rooms.

It is conceivable that the courtyard, as a locus for the house, might have had its pavement before ancillary rooms had theirs. Mosaic M14 was plain except for two black bands. The inner frame is symmetrical, but the outer frame plays to the asymmetry of the curbstone at the base of the walls (Plate 39). Small gaps between the curb and the walls of the room were paved over with plain white mosaic; on the southeast side of the room this extended into the area of Room 2O and up to cistern 2331 (M15–16). Mosaic applied to the back of the curbstone lends weight to the interpretation of the room as an open-air court, since the mortared pavement may have functioned as a waterproofing device.

Two layers of painted plaster discovered in patches on the walls surrounding the court probably belong to this building phase.<sup>78</sup> The earlier layer consisted of red squares framed by red and green borders. At some point this was covered over with a second layer of painted decoration that

featured roundels in imitation porphyry set within yellow rectangular frames (Plates 40B–C). A similar design was painted on the northwest face of wall 2286, facing the courtyard from Room 2O described below (Plate 40C). The earlier layer of decoration is consistent in appearance to the wall painting contemporary with the geometric pavements in Rooms 2J, 2K, and 2L, but the new layer of imitation marble painting that was applied to the courtyard was not applied to these rooms, which appear to have remained the same in appearance until the years preceding the attack of A.D. 252/253.

**ROOM 2N:** The floor of this room was paved with mosaic M17, the only figural mosaic found in the House of the Bull (Plates 42–45). A border of 14 small panels with birds and Dionysiac masks surrounded a central panel with a winged Eros. Dunbabin gives parallels to support a date for the mosaic in the late second or early third century A.D. The painted plaster decoration that survives on the southwest wall of the room probably also dates to this time.<sup>79</sup>

**ROOM 2O:** The only floor identified in Room 2O was a mortar floor (context 2472) that seems to have been the bedding for mosaic M18, a trace of which survived at the room's northwestern corner. Too little survives to comment on its date, but the mosaic probably once covered the entire room.

At some stage a small barrel-vaulted latrine was inserted into the southwestern side of Room 2O (Plates 46A, 48B, 49). The walls framing the latrine's entrance on the northwest were founded on top of M15, so it was built after the laying of the mosaic around the courtyard. The barrel vault was built up against Room 2O's southwest wall, the location and orientation of which are known from robbing trench 2431. The latrine's northwest wall (2286) was constructed of brick and mortar. The wall was only 23 cm thick, corresponding to the width of the bricks used to make it, and it abutted cistern 2331.<sup>80</sup> The southeast wall (2497) was made of a combination of brick and mortar and mortared rubble. The northeast wall (2496) was made from a combination of ashlar masonry and brick and mortar. The ashlars and rubble used in these walls appear to have been reused from sections of Room 2O dismantled to accommodate the new latrine. The latrine was entered from the northeast, with wall 2286 serving as a screen between the interior of the latrine and the courtyard. The entry was approximately 1.20 m wide, with no indication of a door. Beyond the entry passage, visitors turned to the southeast and descended two steps into a chamber paved in a rubble floor. Waste would have exited through a drain (2499) found below floor level and traced to the southeast through wall 2496 (Plate 19C). There is no evidence for a constant water supply for flushing, as in the case in the House of the Fountain in Trench 9 (see below), and so manual flushing was probably required.<sup>81</sup>

The outer walls of the latrine were covered in painted plaster. The northwest, northeast, and southeast walls were all decorated with the same design as the second phase of painted plaster discovered on the walls of the courtyard. The similarity was probably intentional, since the northwest wall of the latrine would have been visible from the courtyard.<sup>82</sup> At some point steps were constructed against the latrine's southeast wall. They were supported by a rough rubble and mortar foundation (context 2500) that covered over the painted plaster on this side of the latrine. Latrines are often found under stairways, and the steps probably led up to a second floor.<sup>83</sup> If the house had an upper story, access to it prior to the addition of the latrine to Room 2O was presumably gained by some other route.

**ROOM 2P:** During this phase mosaic M19 was added to Room 2P. Only a small section of the pavement was excavated in the room's northeast corner (Plates 47–48A).<sup>84</sup> The mosaic was laid around drain head 2536, which was connected to a drainage system in Room 2O and to cistern 2331.

#### MIDDLE IMPERIAL 2 PHASE

Like the House of the Helmets, the House of the Bull saw the partitioning of rooms in the years before the Sasanian sack of A.D. 252/253. Unlike its neighbor, the house had the walls of several rooms covered over in a monochrome purple-blue plaster. Between the courtyard and Room 2M, wall 2253 sealed up the connection between the rooms on the northwest side of the northwest column (Plate 40A). The blocking wall was built of reused paving slabs bonded with mortar; the upper reaches of the wall may also have been built of mortared rubble. Also attributable to this phase are graffiti scratched into the painted plaster decoration in the northwest corner of the courtyard.<sup>85</sup> In addition, the walls of several rooms were covered in a monochrome purple-blue plaster. A date for the addition of this plaster in the second part of the Middle Imperial phase is suggested by its presence over the blocking wall between Room 2M and the courtyard.<sup>86</sup> On the northwest wall of Room 2J it covered over an earlier layer of wall painting connected to the phase of decoration that saw the addition of mosaic M8 to the room.<sup>87</sup> In Room 2K, the same purple-blue plaster covered over the earlier wall painting and the edges of mosaic M10 at the base of the walls (Plate 37B).<sup>88</sup>

The dark monochromatic plaster in purple-blue was clearly applied after the installation of the mosaic pavements. The reason for the uniform application of this plaster to several connected rooms is unclear, as is the absence of this painted layer from the courtyard and other rooms to the east. A program of redecoration seems a reasonable suggestion, but the date for the new plaster seems to coincide with partitioning of rooms in this house and in the House of the Helmets. The transformation of the House of the Helmets involved a change in functionality of rooms representative of withdrawal and decline, not renewal and

beautification. The addition of the dark painted plaster to an entire suite of rooms in the House of the Bull is perhaps indicative of a change of ownership or function for the entire house in the years leading up to the Sasanian attack on the city, but the evidence for this is not clear.

#### DESTRUCTION

The House of the Bull was covered by collapsed mud-brick and rubble on top of a deep layer of burnt destruction debris. The few coins found in the debris dated the cataclysm to the mid-third century A.D., and thus we should associate it with Shapur's attack. In the western rooms, the destruction layers were particularly thick. The debris over mosaic M8 in Room 2J contained an iron brazier and suspension system (IR92–94) and other metal objects.<sup>89</sup> In the overlying layer of collapsed mud-brick the excavators found iron fittings for a bucket (IR105–108, IR110), metal fittings for a wooden casket (BR55), coins of Geta (C165) and Gordian III (C68), and other objects.<sup>90</sup> The lowest stratum of destruction debris in Room 2K was also rich in finds, yielding a lion's head mask attachment (BR150), iron window bars and latches (IR279, IR249–253), and other items.<sup>91</sup>

Other rooms of the house were also covered with several layers of destruction debris containing similar finds.<sup>92</sup> From the courtyard and Room 2O the excavators removed a burnt destruction layer (contexts 2278 and 2285) covered by collapsed rubble and mud-brick (context 2269). A coin from context 2269 dates to the time of Septimius Severus (C162) and pottery from context 2278 belongs to Kenrick's Group D. All three contexts preserved fragments of bars and grilles for securing windows.<sup>93</sup> Context 2269 was especially rich in finds, including copper alloy parts of a jug (BR2), handle (BR14), scabbard plate (BR23), and decorative harness (BR27), as well as parts of a white marble bowl (SV1), and a nearly complete millstone of black basalt (Q4, Q6), typical of those found in bakeries at Pompeii and Ostia.<sup>94</sup> Wear on the upper stone suggests that an animal had turned the mill.<sup>95</sup> Significant here is the appearance of the copper alloy harness plate in context 2269 and an iron harness link (IR84) in context 2285, objects that could have functioned to secure an animal to the mill. The grinding of grain appears to have been occurring in the House of the Bull at the time of its destruction. Also significant is the military function assigned to the harness plate in chapters by Khamis and Scott (volume 3), especially in light of other evidence for the billeting of soldiers in residential parts of the city on the eve of the Sasanian attack.

#### LATE IMPERIAL PHASE

In some contexts the excavators found Late Imperial material mixed into the destruction debris. For example, the mud-brick collapse (context 2255) in Room 2K included a coin of Justinian I (C224). Context 2278 over the floors of the courtyard and Room 2O produced an arrowhead (IR28) that resembles arrowheads of the fourth to sixth centuries.<sup>96</sup> From the overlying context 2269 came a few

sherds of Late Imperial date. Since there is no evidence for post-Sasanian-attack rebuilding, these intrusions probably came about from later wall robbing. Indeed, walls around parts of Rooms 2M, 2N, 2O, and 2P were robbed down to their foundations.

#### Conclusions

The earliest construction in Trench 2 belongs to the House of the Helmets, where there appears to have been more or less continuous inhabitation from Seleucid times to A.D. 253. Seleucid-era walls were founded on a rock-cut terrace that faced out to the Euphrates River. Around the node of the early structure, which may have included a courtyard, new rooms were added in the second part of the Early Imperial phase, and some of these were decorated with wall painting (e.g., Room 2G). There may have been limits to the expansion of the house at this time due to the established presence of neighboring houses built in the first part of the Early Imperial phase. The Middle Imperial phase saw the addition of new mosaic pavements to the alley, to Room 2H, and to the peristyle court, which must have reached its final colonnaded form by this time, and the subsequent partitioning of rooms, some of which preserved strong evidence for a dramatic transformation in functionality (e.g., the peristyle court). The house was destroyed in A.D. 253 and never rebuilt. Neighboring houses appear to have been built around this core, adhering to the same general orientation for terraces and walls. The House of the Pelta Mosaic and the House of the Peopled Plaster preserve architectural evidence to suggest construction in the Early Imperial phase and remains of decoration that belongs to the renovation in the Middle Imperial phase: e.g., mosaic M2 and wall painting with the waiting-servant theme in the Room 2D. The architectural and decorative history for the House of the Bull is more or less parallel to phasing for the House of the Helmets, except for the absence of evidence for a Seleucid foundation. Like the House of the Helmets, the House of the Bull was beautified with new mosaics and wall painting in the first part of the Middle Imperial phase, with two phases of painting preserved in the courtyard, before its rooms were partitioned and repainted in an event perhaps related to the threat of a Sasanian attack.

The House of the Helmets and the House of the Bull share a similar architectural plan: a courtyard surrounded on at least three sides by connected rooms, one of which is a long narrow loggia on the northeast side, set apart from the courtyard by a screen of columns. Each courtyard was also connected to an adjacent room via two doorways on either side of a central pier: Room 2G in the House of the Helmets and an unexcavated room to the southwest of the courtyard in the House of the Bull. Although not completely excavated, the House of the Fountain in Trench 11 may have been arranged around a similar core, although the loggia there is on the southwest side of the courtyard. Ancillary rooms around the central courts were no doubt multifunctional in

nature, with large decorated spaces lending themselves to entertainment and smaller rooms providing personal accommodations. The small, windowless, semi-subterranean Room 2L in the House of the Bull may have been suitable as a bedroom, since it would have been the coolest part of the house in summer and easily heated in winter. This finds parallels in other houses at Zeugma, for example, on the west side of the House of the Ariadne and Dionysus Mosaic,<sup>97</sup> and in the House of the Synaristosai Mosaic, where the room was adapted from a Hellenistic arcosolium.<sup>98</sup>

Noteworthy is the contemporary redecoration of neighboring houses in Trench 2 with mosaics and wall painting in the first part of the Middle Imperial phase. All but one of the pavements have geometric themes, and all are datable on the basis of style between the late second and early third century A.D. Signs of a sequential, rather than synchronous, repaving of these spaces within this temporal range is apparent from at least one figural pavement (MI7) and from Room 2M, where two pavements were found, a later work obscuring an earlier one. It is important to note that the excavators did not remove most of these mosaics, and that layers beneath them, which may have preserved earlier pavements, were not investigated. Layers of wall painting expand the temporal range of decoration in these houses. Rooms 2J, 2K, and 2L in the House of the Bull show that motifs with light panels embellished with dark borders and vegetal ornament were contemporary with the geometric pavements in these spaces. Similar motifs in Room 2G in the House of the Helmets could be slightly earlier. Imitation marble motifs found in the courtyard and on the exterior of the latrine in the House of the Bull belong to Middle Imperial times, and this is an indicator for changing tastes in wall decoration at Zeugma in the first half of the third century A.D.

Also noteworthy are changes to the houses in the period immediately before their destruction in A.D. 252/253. Most of these are best considered adaptations rather than renovations. In the House of the Helmets the loggia on the northeast side of the peristyle court was cut off from the rest of the house. At the time of destruction, a pithos filled with fruits and nuts occupied a corner of the room, and iron vessels were resting on the room's mosaic floor. A mud-brick shelf built at one end of the peristyle court's northeastern corridor held a quern and several vessels containing food. In the House of the Bull, Room 2M was partially blocked off from the courtyard. These adaptations find parallels in the House of the Tunnel in Trench 13, where a room with vivid wall painting was being used for storage of grain at the time of the Sasanian attack, and in the House of the Dionysus and Ariadne Mosaic, where the west colonnade of the peristyle court had been blocked with mud-brick. On the east side of the blocking, facing the courtyard, excavators found three rounded niches with plastered interiors, perhaps designed for food storage. Unfortunately, the date of the blocking was not determined during excavation, although the house itself was destroyed

in the mid-third-century Sasanian attack.<sup>99</sup> The adaptations evident in Trench 2 may represent a citywide trend.

The blocking of colonnades and the insertion of benches is a phenomenon well known from public and private buildings of the Late Imperial East.<sup>100</sup> The reason for these subdivisions is not always clear, although in some cases they appear to represent the transformation of high-class structures into low-class apartments.<sup>101</sup> Ellis cites textual evidence referring to the blocking of a colonnade in Edessa in order to accommodate an influx of refugees during a famine of the early sixth century.<sup>102</sup> Subdivision at Zeugma occurs centuries earlier, but the reason behind the architectural changes may be similar. It is conceivable that the threat of a Sasanian attack caused people from the countryside to seek refuge in townhouses at Zeugma newly subdivided for the purpose of this accommodation. A more likely scenario, however, and one better suited to the evidence, is that the houses were subdivided for the billeting of soldiers.<sup>103</sup> Evidence for the presence of the military at Zeugma during the days before the Sasanian attack is clear across the site. In Trench 2, helmets and bits of weaponry were recovered from the floor of the House of the Helmets. Weapons were also found in the House of the Bull. Destruction layers in Trenches 11 and 18 also yielded finds of a military nature. Excavations by the University of Nantes report a possible Roman standard found under destruction debris on the mosaic floor in room F in Trench 14.<sup>104</sup> Similarly, finds from the so-called Poseidon Villa in Trench 8 led excavators there to conclude that the house had been occupied by a commanding officer at the time of the Sasanian attack.<sup>105</sup> The presence of a mill, perhaps set up in or around the courtyard of the House of the Bull to accommodate milling, as well as the evidence for food preparation and storage in the peristyle court of the House of the Helmets, also suggest that these houses may have been adapted to meet the needs of an army preparing to face an invasion.

#### Trench 4

Trench 4 was located northeast of the Gaziantep Museum's previous excavations in the House of the Dionysus and Ariadne Mosaic, and approximately 100 m southeast of Trench 9 (Plates 50–51). In a zone threatened by the Birecik reservoir, this roughly triangular trench was opened when the modern road across the site was widened in summer 2000. Trench 4 contained the remains of a limestone structure with evidence for two phases of construction. Contexts associated with building and renovation yielded no datable material, but the relative phasing is clear. The high-quality stone masonry is characteristic of Seleucid- or Commagenian-era building at Zeugma. A stairway foundation added outside the building and a mosaic pavement added to the interior both belong to a later phase, here identified as Middle Imperial, although the evidence would also allow for an Early Imperial date.

## SELEUCID / COMMAGENIAN PHASE

The earliest phase in this trench was represented by a compact surface made of mortar and limestone chips along the northern and eastern sides of a limestone structure (context 4020). The excavators did not remove the surface, but it probably related to two streets presumed to intersect outside the corner of the structure.

A limestone structure at least 4.60 × 6 m in size was built on top of surface 4020, but some parts of the building appear to have cut into it (Plate 50B). The building appears to have a long narrow plan, oriented roughly north to south, with the foundations backed up against a rock-cut ledge along the west side. The rock-cut ledge had at one point presumably supported the west side of the building, but architecture was not found here beyond vestiges of rendering made of mortar with inclusions of small tile fragments and pot sherds.<sup>106</sup> The north wall (4001) was constructed of ashlar blocks bonded with mortar and resting on a limestone plinth (4013) that cut into surface 4020 below. This wall abutted the rock-cut ledge on the west. On the east it was bonded to wall 4009, which was also constructed of ashlar blocks bonded with mortar and rested partly on plinth 4013 and partly on surface 4020. Wall 4009 ran south for at least 5.3 m before it was obscured by the limit of excavation. Walls 4001 and 4009 were each preserved about 1 m above the surface outside the building. The rock-cut ledge to the west was preserved slightly higher. The interior corners of the building were strengthened by blocks (4035). Materials used for the upper walling on these foundations, if any, were not preserved.

Features inside the corner of the structure shed light on the building's original appearance. The excavators found three unfluted column drums with central dowel holes for joining (Plate 51A). These appear to have collapsed from one of the exterior walls.<sup>107</sup> The east wall makes the most sense as a foundation for a colonnade. The floor level inside the building at this point is uncertain, and the question of access to the interior cannot be answered for the early phase of the building. Still, the excavated part of the structure resembles one end of a long stoa or portico.<sup>108</sup>

## MIDDLE IMPERIAL PHASE

In this phase the space between the piers (4035) was carefully filled in with small limestone blocks (wall 4036). These blocks were rougher than those used for the earlier walls, and the trimming technique was different. The top of this wall was even with the top of the piers (Plate 50B). Mosaic pavement M20 was installed against the new wall, as well as against the earlier features that defined this interior space, including the rock-cut ledge and the east wall (4009). This was made of plain white tesserae and does not serve as a device to assist dating (Plate 51B). Changes to the north side of the building's exterior appear to be connected to changes on the interior. A mass of rubble filling bound on three sides by mortared rubble walls was built up against the outside of the building (Plate 50A). The walls,

which incorporated spolia, were laid very deep, especially wall 4023, whose construction trench cut through the construction trench for the building's north wall (4001) and the mortar surface outside the building (4020). A rough rubble ledge on top of wall 4001 appears to belong to the same phase of renovation. All of these changes appear to belong to new accommodations for a stepped entry into the building from the north. The deep rubble construction outside the building is consistent with a stairway foundation. The ledge on top of the north wall (4001) may be a vestige of a new threshold across the top of the wall, which appears to have been widened and strengthened by the addition of wall 4036 on the building's interior. Holes in the mosaic pavement, one in front of each pier (4035), may be related to the placement of supports for a corresponding stairway, perhaps rendered in wood, on the inside of the building below the threshold on wall 4001.<sup>109</sup>

## DESTRUCTION

Several layers of colluvium mixed with building debris covered the entire trench. Three of these contexts (4008, 4004, 4011) yielded ceramics dating to the early sixth century.<sup>110</sup> There was some ash in these layers as well, and this makes it likely that destruction by fire was the cause of the building's collapse.

## CONCLUSIONS

Although little of this structure was excavated, its high-quality masonry and position on the crossroads of two streets suggest that it may have been a public building. Its foundations seem to resemble those for a public building excavated in Trench 6.<sup>111</sup> Both structures were made of ashlar, and the surviving external corners of each possess a projecting plinth on one side. The date of the Trench 6 structure has not been determined, but its identification as a stoa or portico would be consistent with the apparent public nature of the limestone structure in Trench 4.

## Trench 9

This trench was located 100 m southeast of Trench 2. Excavation uncovered two buildings on terrain that sloped down to the north: the House of the Tesserae and the House of the Hoards (Plates 52–69). An alley oriented east to west separated the houses. A violent conflagration destroyed both houses and the alley between them. As in Trench 2, rooms were filled with burnt destruction debris and mudbrick collapse, and contexts with pottery and coins confirm a destruction date in the mid-third century A.D. In the case of Trench 9, the dating is supplemented by hoards of coins discussed in the chapter by Kevin Butcher (volume 3). Unlike houses in Trench 2 described above, building in the Late Imperial phase disturbed the House of the Hoards in Trench 9. This provides evidence for a partial revival of Zeugma some time after the city was razed in A.D. 252/253.



## SELEUCID PHASE

A few traces of ashlar masonry, some of which were incorporated into later walls, have been assigned to this phase on the basis of style. No ceramic or coin evidence survives to confirm the date of this phase, although the discovery of a coin of the late third century B.C. and six bullae of Hellenistic to early Roman date indicate some activity here in the last three centuries B.C.<sup>112</sup>

**THE LOWER TERRACE:** Evidence for activity on the lower terrace during the Seleucid period came from the eastern edge of the trench, where fill in bedrock cuttings contained a coin of Antiochus III (C2).<sup>113</sup> The terrain was steep here, and the deep rock-cut terracing resembled a small quarry, a likely source for building material for houses in Trench 9.

**THE UPPER TERRACE:** Here the excavators identified a single course of well-cut ashlar in a bedrock foundation. A later wall of pier-and-panel construction (wall 9259) had been built over it when the wall came to separate Rooms 9H and 9I. The continuation of the wall could be traced another 1.5 m in a bedrock cutting at the wall's northern extent before turning 90 degrees to the west and continuing beyond the limit of excavation. Another bedrock cutting to the northeast marked the position of a robbed wall that may have belonged to the same period as the ashlar under wall 9259. Two ashlar in wall 9285 at the eastern edge of the trench probably also belong to this phase. Taken together, these ashlar and bedrock cuttings define a room that more or less matches the plan of Room 9I in the subsequent Roman-era house. This early room was probably connected to additional rooms to the south and east, as suggested by two ashlar blocks (wall 9341) in the southeast part of the trench, later built into the west wall of Room 9J, and a bedrock surface to their east (context 9342).

**THE ALLEY:** An open area formed the ridge of the rock-cut terrace to the north of the Seleucid-period rooms just described. In later Roman building this space was an alley, but its earlier function is not known. A channel for drain 9303 cut into the bedrock surface here. The drain channel was a squared U-shape, with sides strengthened by limestone slabs.<sup>114</sup>

*The House of the Tesserae*

## EARLY IMPERIAL PHASE

The excavators uncovered five rooms of a house built on the lower terrace in this phase (Plates 53, 57A, 60–62). Sometime after its construction the level of the alley was raised. There is no evidence for renewed activity on the upper terrace at this time, although the Seleucid-period walls appear to have remained intact.

The five interconnecting rooms on the lower terrace, which appear to include a shop and a modest residence, are named the House of the Tesserae after an amphora filled with stone tesserae for a mosaic pavement, found

in Room 9A. The walls of the house were pier-and-panel construction laid on bedrock foundations. The piers were constructed from upright ashlar, averaging 50 × 60 cm on each side, while the panels were composed of rubble in an earthen matrix. Evidence from the alley to the south shows that the house was standing by at least the Flavian period.

**ROOM 9A:** This nearly square room measured 8 × 9.5 m in size (Plate 60D). A doorway in the north wall led to Room 9D. Two ashlar formed the jambs, and the excavators thought these might have supported an arch. Another doorway in the room's east wall led to Room 9E. The earliest surface found within these walls was a mortar floor (context 9080). Probably associated with the floor was a plain gray plaster that coated the eastern and southern walls of the room.<sup>115</sup> On the southern wall, plaster 9068 bore traces of graffiti (Plate 61A).

**ROOM 9B:** Room 9B did not communicate with Room A. A doorway between two piers led to Room 9D to the north. The room's western wall, coterminous with the western limit of excavation, preserved an ashlar pier (context 9023) and a limestone rubble foundation topped by a mud-brick wall.<sup>116</sup> Only the upper levels of the room were excavated, and a floor surface was not discovered. The room may have functioned as anteroom for a rock-cut vaulted room (context 9090) carved into the rock-cut terrace to the south that supported the alley and the House of the Hoards (Plate 61C). The rock-cut room, recognized from an arched opening that came to light in the lowest level of excavation in Room 9B, was decorated with painted plaster in red. The room was not excavated, but it appears to be parallel in design and function to the vaulted room in the House of the Bull in Trench 2.

**ROOM 9C:** Room 9C only came to light in 2001 after it was exposed by wave action on the Birecik reservoir (Plates 160, 162A–B). A doorway north of pier 9023 in the west wall of Room 9B gave access to Room 9C. The continuation of wall 9063 formed the room's south wall and a pier-and-panel wall formed its west wall. An arch in the west wall (context 25011) was made of mud-brick and had a span of about 2 m. It is conceivable that this arched entry played a role in access to the house from the outside.

**ROOM 9D:** This long and narrow room, about 7 × 2.5 m in size, was located north of Rooms 9A and 9B, and it communicated with both. Its southern wall was wall 9061. Its eastern wall (9030) was a continuation of wall 9064.<sup>117</sup> The north end of the wall met the room's north wall (9089), which was made of limestone rubble, at a bedrock ledge that formed the northeast corner of the room. The earliest context found in the room was a make-up layer for an earthen floor.<sup>118</sup> Traces of gray render in this room were found chiefly in the southeastern corner, where it was cov-

ered by white plaster painted with an occasional vertical red line.<sup>119</sup>

**ROOM 9E:** The excavated part of Room 9E measured 5.5 × 3.5 m in size (Plates 62A–D). Its southern wall (9329) had foundations cut from bedrock and upper walling of limestone rubble. The east wall (9199) survives as a bedrock foundation that probably also had a limestone superstructure. The room communicated with Room 9A through a doorway in the west wall. The room may have also had doorways to the north and east, but these areas were not investigated. The floor of Room 9E was made of leveled bedrock (context 9197) (Plate 62C). The south wall had vestiges of painted plaster depicting white panels with red and green borders outlined in black (fresco 9330) (Plate 62D).

**THE ALLEY:** Sometime after the construction of the House of the Tesserae, two fills raised the level of the alley over drain 9303 and abutted the south walls of the house. The upper layer (context 9293) contained ceramics from the late first century A.D., and this provides a terminus ante quem for the construction of the House of the Tesserae (Plates 53, 56A).<sup>120</sup>

#### MIDDLE IMPERIAL PHASE

During this phase a new drain was installed in the alley and minor renovations were made to two rooms in the House of the Tesserae. A limestone bowl or mortarium was inserted into the floor of the southeastern corner of Room 9D (Plates 56B, 57A, 61D).<sup>121</sup> The space between the mortarium and the walls was packed with rubble and covered by plaster. The excavators found a rounded block or column drum fragment on the eastern edge of the mortarium. Pottery of mid-Roman date and two coins (C167, C103) were found in a context associated with the packing below the mortarium.<sup>122</sup> One coin was illegible, but the second belonged to the reign of Trajan Decius (A.D. 249–251), and this dates the remodeling to shortly before the destruction of the room.

Room 9E was truncated by the insertion of a limestone rubble wall (9165) built directly on the bedrock about 1 m north of the room's original south wall (Plate 62B). It ran east to west, abutting walls 9199 and 9064 and partially blocking the doorway to Room 9A, which had its northern jamb trimmed back to allow access. A doorstep made of stone placed over tile was installed against the new wall and the doorway (Plate 62A). The northern face of the new wall (9165) was covered in a gray render (9201/9164), and a similar render was added to the western wall of the room (9202/9189).

At the same time as the construction of wall 9165, the former south wall of Room 9E was heightened and strengthened with a new pier-and-panel wall (9174). The space between the new walls (9174 and 9165) was filled with rubble (context 9229) with a surface intended as either a floor for an upper story or an elevated shelf (context 9196).<sup>123</sup>

#### DESTRUCTION

The floor and plaster of Room 9A were blackened by intense heat and burning. In the destruction layer of that room (context 9076) the excavators found an amphora filled with used tesserae (Plate 61B), the feature for which the house is named.<sup>124</sup> This room also contained two querns (Q17, Q26) that would have functioned as a pair for the grinding of grain, as well as a set of spindle whorls.<sup>125</sup> From the same layer came eight coins, dating between A.D. 211 and A.D. 249, which may have formed part of a hoard with other coins found in the overlying layer of mud-brick collapse (context 9073).<sup>126</sup> The upper collapse layer also yielded numerous metal objects, including many fragments of padlocks.<sup>127</sup> On the bedrock floor of Room 9E, north of wall 9165, eleven coins dating to the first half of the third century A.D. were found (context 9197). These may represent a second hoard once hidden somewhere in the House of the Tesserae.<sup>128</sup> The dates for these contexts suggest destruction in the Sasanian sack of A.D. 252/253. The House of the Tesserae was not rebuilt.

#### *The House of the Hoards*

##### MIDDLE IMPERIAL PHASE

In this phase a house was built on the upper terrace over the remains of the earlier Seleucid-phase walls (Plates 53, 57B, 58–59, 63–69). Not all rooms can be shown to communicate, but they are considered here as part of a single unit, named the House of the Hoards after hoards of coins found in Rooms 9J and 9I. Excavation in the rooms themselves produced little evidence for dating initial construction, but deposits in the alley indicate that the house's northern walls, and perhaps others, were erected during the Middle Imperial phase. Since building techniques in the walls of the house are not homogeneous, it is possible that more than one period of construction is represented in the remains.

**ROOM 9F:** This room was only partially investigated. Its north wall (9336) was made from limestone rubble founded on bedrock, and it abutted the northeast end of the Seleucid-phase ashlar wall (9341). A make-up layer for mosaic M21 had been deposited on the bedrock up against each wall (Plates 63A–B).<sup>129</sup> Mosaic M21 is a small fragment of a geometric pavement undatable by style alone and not found in the presence of datable deposits.

**ROOM 9G:** This room was located west of Room 9F but did not appear to communicate with it (Plate 63C). Its north wall (9267) was made of pier-and-panel masonry, with mud-brick panels, founded on a rock-cut ledge that formed the lower part of the wall. The east wall of the room (9283) was built in the same manner, but with panels of limestone rubble.<sup>130</sup> The lower part of the south wall (9311) had been carved from bedrock, with a few ashlar blocks used for filling and stabilization. The western limit of the room lay outside the zone of excavation, but overall dimen-

sions of the room are estimated at about  $4 \times 4.5$  m. Entry to the room was probably from the west.

The floor of the room had been carved from bedrock. Colorful panels of painted plaster were preserved on all three surviving walls. Graffiti, with possible depictions of gladiators and boats, were incised into the plaster of the north wall (Plates 64–66).<sup>131</sup>

**ROOM 9H:** This room was located between the alley and Rooms 9G and 9I. The area to the east was unexcavated. The room was square, measuring about  $5 \times 5$  m in size. Its northern wall seems to have made use of the Seleucid-phase rock-cuttings for wall foundations. The east wall of the room appears to have been formed from an earlier wall from the Seleucid phase, vestiges of which are preserved at the room's southeast corner. During the Middle Imperial phase, however, a doorway in the earlier wall was blocked with a panel of rubble and earth (Plate 62E). For the west wall (9259), two ashlar blocks from an earlier Seleucid wall were used for the foundations. This wall was of pier-and-panel masonry with panels composed of mud-brick. An ashlar pier marks the north end of the wall, and this appears to have also been a jamb for a broad doorway that gave access to Room 9I to the west.

The floor for this room in Seleucid times may have been carved from bedrock. A compact earthen floor (context 9256) may be connected to Middle Imperial usage; it was traced throughout the southern and western sections of the room and may have extended into neighboring Room 9I (context 9227).<sup>132</sup> Wall plaster was preserved in situ in the southeast corner of the room.

**ROOM 9I:** This room was examined with sondages at the room's northeastern and northwestern corners. The room's north wall (9046) was made of pier-and-panel construction founded on bedrock.<sup>133</sup> The east wall panel was constructed of rubble with an earthen bond, but the western and central panels were composed of a very hard mortar preserved to a uniform level (Plate 67D). On the north face of this wall, facing the alley, the mortar formed a ledge with a facing of round river stones. The west wall was made of pier-and-panel masonry with panels of limestone rubble in an earthen matrix (9129); this abutted the room's north wall (9046) and may belong to a slightly later phase of construction. The position of the room's southern wall is uncertain, although it might be recognized in wall 9320, a fragment of a mud-brick wall abutting the western face of wall 9259.

Areas of the room excavated to bedrock show that places with uneven bedrock were filled in and leveled out with a layer of earth and rubble (context 9301). The excavators found a layer of burning with fragments of tile and limestone on the east side of the room where the bedrock was lower (context 9198). This deposit, which resembled the Sasanian destruction layer found elsewhere at Zeugma, was traced through the doorway in the east wall and into Room 9H. It contained ceramics and coins dating up to the

mid-third century, with one residual coin of Augustus.<sup>134</sup> In addition, five curved and socketed iron knives and five iron combs found in context 9198 suggest textile production for the function of this room (Plate 68A).

Traces of painted plaster adhered to sections of the room's surviving walls. A plain render covered the north wall of the room, over which was added a coat of painted plaster with traces of red, green, pink, and dark-blue pigment. A similar painted design appeared in the southeastern corner of the room.<sup>135</sup>

**ROOM 9J:** Room 9J was only partially investigated by a sondage in the northeast corner. The east wall (9129) had pier-and-panel construction. The north wall (9055) was founded on bedrock and constructed precisely like the north wall of Room 9I: ashlar piers with panels of hard mortar faced with river stones on the side facing the alley. Mortar and tile fragments had been placed on the bedrock under the wall to provide an even foundation. A pier at the east end of the wall had a fragment of a pediment incorporated into the masonry. A make-up layer (context 9269) was deposited over the bedrock (Plate 55). It abutted the room's north wall and was covered by a compact earthen floor (context 9188). No finds were associated with these layers.

**THE ALLEY:** A foundation trench for the northern walls of the House of the Hoards was cut into fills in the alley of the Early Imperial phase. Unfortunately, the fill within the construction cut yielded no material to help date this event. The construction of the walls, however, appears to have coincided with the laying of a new drain (9035) that cut into the same fill (Plates 55–56A). The fill in the cutting for the new drain (context 9036) contained coarse ware dating from the late second to early third century A.D., and this suggests that the House of the Hoards was built in the Middle Imperial phase. The walls of the drain were built of limestone with a cement mortar and its floor was composed of tiles (average dimension  $14 \times 27$  cm), many of which had an incised X running from corner to corner and a small lunate sigma, perhaps a mark of the manufacturer. The interior of the drain was lined in waterproof cement and the channel was capped with limestone slabs. The fill found within the drain had two coins (C77, C190) dating to Gordian III and Alexander Severus, respectively.

#### DESTRUCTION

The excavation of Room 9G revealed a destruction sequence consisting of a burnt layer on the bedrock floor (context 9228), followed by two layers of collapsed mud-brick and roof tiles (contexts 9257 and 9175) that were covered by another burnt layer (context 9137) (Plate 67B).<sup>136</sup> The same pattern of destruction was discovered in Room 9H, where several layers of destruction and collapse covered the floor. The lowest of these, context 9231, yielded a bone container with residual pink powder, perhaps make-

up (B28). A destruction layer above this (context 9247) had a folding tripod table (IR95) and a steelyard (BR158), suggesting a commercial function for the house. In Room 9I the excavators identified a lime-like dump lying directly on the floor of the room and considered it plaster slumped down from the walls of the room. Over this they found a deep destruction layer filled with ash and charcoal (context 9143 in the western part of the room and context 9195 in the east). Among other finds, an exceptional amount of burnt glass was recovered from both contexts.<sup>137</sup> Also significant are the many fragments of bronze objects in these contexts: an oinochoe handle (BR1), a patera handle (BR7), a vessel rim (BR12), a jug handle (BR15), a small dish (BR17), a ring (BR123), a mirror handle (BR161), and an unidentifiable object (BR169). Since most of these objects are only parts of an unrepresented whole, it is conceivable that they were being stored for manufacture or recycling.<sup>138</sup> An outstanding discovery was a hoard of 462 coins under a stone in destruction layer 9195, with no coin dated later than A.D. 249 (Plate 68B).<sup>139</sup> In the adjacent Room 9J, two additional hoards of coins of mid-third-century date were found within the destruction layer and overlying layers of destruction and collapsed mud-brick (contexts 9138, 9112 and 9082) (Plate 55).<sup>140</sup> In the upper layer of collapse the excavators found sets of toes for life-size bronze statues (BR155).

Room 9F may have escaped destruction at this time. Mosaic M21 was buried in collapsed debris, but without indication of burning.<sup>141</sup> The room may have already been abandoned and partially filled in by the time of the Sasanian attack.

#### LATE IMPERIAL PHASE

The upper terrace saw some rebuilding as early as the fourth century A.D., especially in the alley, and in Rooms 9H and 9J.

**ROOM 9G:** A mud-brick wall oriented east to west (9186) was built on top of the destruction deposit in this room (context 9175), thereby dividing it in half.<sup>142</sup> Sometime later the wall was covered by a floor (contexts 9182 and 9179) that was traced throughout Room 9G and to the north, where it ran over wall 9267. Several layers of collapse covered this surface (contexts 9184, 9183 and 9120). Only context 9183 contained pottery, and this was attributable to the second half of the fourth century.<sup>143</sup> A Hellenistic clay seal (ZB4) in context 9120 was residual.

**ROOM 9H:** Room 9K was built into the destruction layer inside the northeast corner of Room 9H (Plates 68C–69). Finds for specific dating of deposits were not present here. The destruction debris was removed to bedrock to make way for the three new walls (9249, 9250 and 9251), which were all constructed of limestone ashlar piers with alternating panels of limestone rubble and fragments of tile.<sup>144</sup> A block with an incised cross motif and a fragment of an in-

scription of Antiochus I of Commagene had been built into a panel in the south wall (Plates 68C–69A).<sup>145</sup> The north wall of the new space was formed by the original north wall of Room 9H, but it was later robbed. In its new configuration, this wall may have had a doorway into the alley.

The room was backfilled with a collapsed mud-brick layer (context 9191) covered by a thin deposit of rubble that had been dumped into the room from an adjacent space. The pottery from both deposits included only coarse ware, generally similar to that found in the mid-third-century destruction deposits elsewhere in the trench. Although not closed deposits, the fills in the room appear to be redeposited material from the Sasanian sack of A.D. 252/253. In the gap between the former south wall for Room 9H and the new south wall for Room 9K, a deposit of third-century debris (context 9252) was covered over by colluvium. Room 9K appears to be contemporary with the fourth-century surface in Room 9G (see above), but there is no direct evidence to connect the two areas of occupation in time or function.

**ROOM 9J:** In the Late Imperial phase Room 9J of the former house may have been partitioned in the same way as Room 9H to the east. Because Room 9J was located at the western limit of excavation, is it not possible to know if a new Late Imperial wall added there was a replacement for an earlier wall or a partition across one larger room. Foundations for the new wall (9058) were cut into destruction debris on the west side of Room 9J. The north end of this new rough limestone wall rested on a rubble foundation built over the top of Room 9J's former north wall (9055), thus putting the earlier wall out of use. A well-cut threshold block with sockets for the insertion of doorposts was installed at the north end of wall 9058, also on top of wall 9055. An earthen floor (context 9119) identified only on the west side of the new room abutted the threshold, but finds from these deposits offered no information for the date for the new floor or its associated wall (Plate 55A).

**THE ALLEY:** Deposits in the alley appear to postdate the Sasanian attack on Zeugma, but finds from the deposits did not assist dating. Mud-brick collapse (context 9234) related to the collapse of the house in the Sasanian attack covered the drain in the alley from the Middle Imperial phase. An earthen surface (context 9235) was installed on top of the collapse layer, and this in turn was covered by another collapse deposit (context 9236). Above this, a new surface was laid across the alley (context 9237) before the alley was again buried in destruction debris.<sup>146</sup>

#### Conclusions

The House of the Tesserae appears to have included a shop and living quarters. The amphora filled with used tesserae may indicate an enterprise in creating or repairing mosaic pavements.<sup>147</sup> Other finds from the same room suggest common domestic activities like grinding and spinning.

Although the complete plan of the house was not recovered, the excavated parts do not follow the design of contemporary houses in Trench 2 or Trench 11. The principal entry for the house was not discovered, and it may have been located somewhere to the northwest or northeast, on the lower terrace. Although stairs were not discovered, it is conceivable that rooms on an upper floor could have communicated with the alley on the upper terrace to the south.

The function of the House of the Hoards is somewhat difficult to determine, although some commercial activity seems almost certain. While the southern rooms of the house preserve some decoration, with a mosaic in Room 9F and colorful painted plaster in Room 9G, the overall appearance of the house, though incomplete, does not reflect the level of wealth or refinement evident from the houses in Trench 2. Before the time of its destruction in A.D. 252/253, the walls of Room 9G had been defaced by graffiti, and Room 9F may have been abandoned. All of this is consistent with the transformation of rooms in Trench 2 on the eve of the Sasanian invasion. The bronze steelyard, as well as numerous metal objects, including pieces of life-size sculpture, indicates that the House of the Hoards may have had a commercial function, perhaps involving the manufacture or recycling of metalwork. The fact that Trench 9 produced more coins than any other trench (127 single finds, in addition to four hoards) is perhaps another indicator of the commercial nature of this part of the city.

### Trench 5

This trench preserves distinct periods of activity in the Seleucid phase and the Late Imperial phase, with a hiatus between them marked by several layers of colluvium (Plates 70–75). A room enclosed with walls of ashlar masonry — a vestige of a larger structure, perhaps a house — belongs to the Seleucid phase (Plate 71). The absence of building dateable to the Early Imperial or Middle Imperial phases is noteworthy, as is the lack of evidence for the Sasanian sack so vividly preserved in other trenches. The area was redeveloped in the fifth and sixth centuries A.D., with four sub-phases of activity identified within the Late Imperial phase. These include the construction of two houses set apart by an alley. These houses are named the Southwestern House and the Northeastern House, respectively, based on their location in the trench.

#### SELEUCID PHASE

The earliest building in the trench was made of ashlar masonry and only partly excavated. The excavated portion appears to have comprised part of a single room about 7.25 × 3.75 m in size, and its walls were constructed of ash-lars laid on bedrock.<sup>148</sup> Although there was no ceramic or numismatic dating for these walls, construction in ash-lars founded on bedrock suggests a Seleucid-period date. A doorway that led into the space from the west was abut-

ted on its western face by a marble block that served as a step out into an exterior space.<sup>149</sup> The excavators removed two fills from within the enclosed space, both laden with limestone chips (contexts 5147 and 5154), perhaps from the trimming of the blocks in place during construction. These fills served as make-up layers for a mortared surface (context 5146) inside the room. None of these contexts yielded dateable materials.

The excavators considered a water channel (context 5074) cut into the bedrock about 4 m to the northeast contemporary with the room.<sup>150</sup> The water channel was found beneath a later alley that operated in conjunction with Late Imperial-period houses on either side of it, and this may indicate that an alley had existed here in Seleucid times (Plate 75D).

#### LATE IMPERIAL PHASE

**THE SOUTHWESTERN HOUSE:** At some point the Seleucid-era room went out of use and was buried under several layers of colluvium (contexts 5150, 5145, 5075, and 5078). Ceramics in the lowest layer (5150) generally dated to the Late Imperial period, and ceramics in the highest layer (5078) dated no later than the early sixth century A.D.<sup>151</sup> Foundations for a multiroom structure, here named the Southwestern House, were cut into context 5078, and this provides a terminus post quem for construction. The walls of the Southwestern House were built in rough pier-and-panel masonry, with broad panels of limestone rubble bonded with earth (Plate 72A). Several walls (e.g., walls 5022, 5024, and 5015) incorporated reused material. Wall 5024 preserved a Latin inscription (IN4) referring to *legio IIII Scythica*.<sup>152</sup> The orientation of the building matched the Seleucid building below, despite the absence of a physical connection between the walls, which were separated by colluvium. Nonetheless, the uniform alignment is not a coincidence, because sequential phases of building from Seleucid to Roman times are frequent at Zeugma, as in Trenches 2 and 9 and 11, and speak to a general adherence to Hellenistic building orientation in Roman times, before and after the destruction event of A.D. 252/253.

The complete plan of the building is not known, and too little survives of the structure to securely identify function, but it was probably a house. Room 5A (defined by walls 5015, 5024, 5023, and 5022) measured roughly 3.5 m square. A doorway in the south wall led into Room 5B, a larger room that continued beyond the southern limit of excavation. A doorway in the east wall led to Room 5C, where parts of the north and east walls had been robbed and where the south wall was not identified in the excavations. Throughout these rooms the excavators identified a leveling layer (context 5045) under earthen floors, but without dateable finds. Room 5A may have had a tile floor, since many fragments of tile were found there.<sup>153</sup> To the west of these rooms, wall 5025 divided large areas to north and south, but information about date or function was not ascertained from deposits here.

**THE NORTHEASTERN HOUSE:** Excavations to the northeast revealed evidence for two episodes of building in the Late Imperial phase. The lowest level investigated was a deposit of colluvium (context 5068), into which foundations for a limestone rubble wall (5056) had been cut. Only one course of stone was preserved, and a compact surface (context 5055) abutted its north side and covered over context 5068. To the west, a flagstone surface (context 5051) suggested an exterior space. A stone-lined pit (context 5122) was discovered among the flagstone pavers, covered over by a thin limestone slab pierced by a single hole.<sup>154</sup> The excavators considered this feature a drain, but hydraulic characteristics are lacking, with the exception of the hole in the cover slab (Plates 71, 74D). The function of the pit is unknown, and ceramics from two thin deposits within were of mixed date.<sup>155</sup> Wall 5056 and the two associated surfaces (5055 and 5051) were covered over by a colluvium deposit (context 5048) that contained ceramics no later than the third quarter of the fifth century.<sup>156</sup> This provides the date by which the wall and surfaces had gone out of use. These features predate construction of the Southwestern House in the early sixth century A.D., but there is no justification for dating them any earlier than the first phase of Late Imperial building in the trench. Excavations were not continued to bedrock here, and this means that deposits of potential value for understanding previous use of this area were left uninvestigated.

A structure built on top of the colluvium deposit 5048 was a contemporary of the Southwestern House, and it is referred to here as the Northeastern House (Plate 71). The exterior wall of this house on the south (5008/5006) had a foundation in roughly coursed limestone rubble that cut all the way through colluvium context 5048 down to bedrock, where it landed next to the Seleucid-era rock-cut drain 5074 (Plates 73B, 75D). In several places a layer of reused roof tiles marked the transition from the foundation to the superstructure, which was built in pier-and-panel masonry. The piers utilized spolia, including part of a fluted column, while the panels were made of roughly squared limestone blocks bonded with earth. At the east end of the wall, a well-built doorway had jambs of upright ashlar with recesses on the north side to allow the door to swing open. The east wall of the house (5040) continued beyond the limit of excavation. These walls appear to mark the southeastern limit of the house, where a doorway gave access to an alley between the Northeastern House and the Southwestern House.

The plan of the Northeastern House is not complete, but it comprised at least two rooms surrounded on the south and east by an L-shaped corridor. The two rooms were made with walls of a construction technique identical to that of wall 5008/5006, and some of these had foundations that cut into the same colluvium context 5048. The rooms continued beyond the limit of excavation to the north, and a connection between them was not discovered, although

the east room communicated with the L-shaped corridor via a doorway in the south wall (5032).

A stone-lined drain, with foundations that also cut into colluvium context 5048, ran from east to west inside the L-shaped corridor (Plate 75B–C).<sup>157</sup> A makeshift hearth (context 5059) near the southeast end of the drain also cut into colluvium 5048 and was probably contemporary with the drain. The south side of the hearth had been fashioned from a large sherd of coarse ware, inside of which the excavators found ashy material and lumps of fired clay (context 5060).<sup>158</sup>

A leveling layer (context 5113) covered over the drain, the hearth, and the two rooms to the north. On top of this, earthen floors were installed in each room and in the L-shaped corridor. The excavators removed the floor of the corridor as three contexts: 5035 in the west, 5036 in the east, and 5037 in the north.<sup>159</sup> A step was found on top of floor 5036, adjacent to the doorway into the alley (Plate 74B). From the pair of rooms to the north, a Syrian painted amphora dating to the seventh century A.D. was found on the floor of the east room.<sup>160</sup> At some point wall 5030 was built on floors 5035 and 5036 in the corridor, dividing the space between east and west (Plate 71). This may have been contemporary with the installation of drain 5009 across the northeastern end of wall 5031 (Plate 75E).

**THE ALLEY:** The alley between the Northeastern House and the Southwestern House was 2 m wide. Here the excavators found a hard-packed earthen surface (context 5020) on top of a leveling layer (context 5049) that covered over colluvium context 5048. The installation of a leveling layer and surface over context 5048 shows that the alley functioned in conjunction with the adjacent houses. A doorway at the southeast corner of the Northeastern House opened into the alley, but there was no sign of communication between the alley and the Southwestern House.

#### ROBBING, ABANDONMENT, AND COLLAPSE

**THE SOUTHWESTERN HOUSE:** At some point before its final collapse, the house was abandoned and robbed for building materials. Robbers removed part of wall 5015 and almost all of wall 5017.<sup>161</sup> A layer of collapse (context 5003) over the robbing trenches and other walls of the house consisted of mud-brick, rubble, and broken roof tiles, but without evidence for burning. Ceramics from this layer dated to the first half of the sixth century and later.<sup>162</sup> The last known construction here was a long terrace wall (5016/5018) across the entire south side of the building, founded on top of all walls in its path, as well as collapse layer 5003 (Plate 73C). By the time of the terrace wall the area no longer accommodated housing. It is conceivable that the terrace wall had an agricultural function.

**THE NORTHEASTERN HOUSE:** Like the Southwestern House, much of the Northeastern House was buried in a layer of collapse (context 5003). In the Northeastern

House, however, this was followed by a burning event (context 5002) and another period of collapse (context 5001) that was buried in colluvium (context 5000). Just north of the doorway to the alley, inside the L-shaped corridor, the excavators found the crushed remains of several vessels dating to the seventh century (Plate 74A).<sup>163</sup> Also found were many metal fittings, perhaps from a wooden door.<sup>164</sup> Thus, it seems that at least part of the Northeastern House was occupied as late as the seventh century.

#### CONCLUSIONS

Trench 5 preserves Seleucid occupation layers followed by a hiatus marked by colluviation, and then Late Imperial construction. There is no evidence for occupation in the Early or Middle Imperial phase. Elsewhere at Zeugma, construction in the Late Imperial phase occurs over the top of buildings razed in the Sasanian attack. In the case of the Southwestern House, builders may have preferred an area unencumbered by destruction debris for the building's foundations. Since neither house in Trench 5 was excavated in full, it is difficult to comment on the overall architectural plan. There is no evidence for a peristyle in either house. In general, few peristyle houses were being constructed by the sixth century,<sup>165</sup> but at Zeugma, the houses in Trench 5 had the Late Imperial Peristyle House in Trench 7B as a contemporary. Destruction deposits in the Northeastern House are similar to those in the Late Imperial Peristyle House in Trench 7B; both may belong to the period of Arab incursions.

#### Trench 11

This trench was located on a sloped terrace next to Trench 14, where University of Nantes excavations brought to light part of a Roman-period house with mosaic pavements and a large masonry stairway, perhaps connected to a public space or building (Plates 76–88).<sup>166</sup> Trench 11 also contained a Roman-period house with mosaics, the House of the Fountain, named for a fountain in the courtyard of the house. At least six rooms of the house were excavated, and more were probably located beyond the northern and western limits of excavation. Part of a second property, located to the south across an alley, was only partially excavated.

#### *The House of the Fountain*

##### COMMAGENIAN PHASE

This phase saw the construction of a courtyard house built of ashlar masonry. The wall blocks varied in size: .90 to 1.20 m long; .50 to .60 m wide; .50 to .55 m high. They were not clamped together, nor were they secured with mortar. At least one of these walls (11013) was constructed on a limestone rubble foundation wall (Plate 79A). In general, the construction technique is similar to walls in other trenches dated to Seleucid or Commagenian times. The house had a central courtyard flanked by rooms to the north and south, and by a suite of three rooms to the east. The area west of

the courtyard was not excavated. Constraints on time incurred by the excavators prevented the complete excavation of any room in this trench. As a result, construction deposits for dating the foundation of the house were not recovered. Room 11E contained a well-developed latrine that appears pre-Roman in its original configuration, but it was used in Roman times and is therefore connected in this report to the period of Roman occupation. The house was renovated in Roman times, and this has obscured the original plan. Still, it appears that remodeling was focused on merely replacing ashlar walls of the original construction with pier-and-panel walls, and thus did not drastically alter the original plan of the house.

**EASTERN ROOMS:** Room 11A measured 4 × 3.7 m in size (Plate 82B). A doorway in the south wall communicated with Room 11B, which measured 4.05 m east to west by 2.4 m north to south.<sup>167</sup> This small narrow room may have been the vestibule for the house, because a door on its west side led into the courtyard and a door opposite on the east wall led in from a presumed street. The doorway to the street had a pivot hole and a rectangular socket for the insertion of a wooden doorpost. To the south, Room 11C measured 4.3 × 3.1 m.<sup>168</sup> Several sections of the walling were replaced in later phases, and these preserve doorways into Room 11B and out to the street to the east. The original plan of the room probably included at least one of these doorways.

**WESTERN ROOMS:** The courtyard was the largest known space in the house, but its original size cannot be determined because the west side of the room was not fully excavated (Plate 83D). If a presumably symmetrical pattern on a later mosaic pavement can be taken as an indicator of the courtyard's original size, then the room extended further to the west than Room 11D.<sup>169</sup> A screen of two columns framed by pilasters, all upon a low stylobate, divided the space from Room 11D to the south, and doorways on the north and east sides of the courtyard gave access to Rooms 11E and 11B, respectively. The south and east walls of Room 11D were replaced in Roman times, but the room probably always had the same dimensions: 4.95 × 3 m. (Plates 77, 87). The stylobate and column and pilaster bases on the room's north side were all found in situ. The bases were Attic, and parts of the collapsed column shafts show that these were unfluted (Plate 83B).<sup>170</sup> The east pilaster, also unfluted, was attached to a large ashlar in the room's east wall (11011) (Plate 87); the west pilaster was backed by several freestanding blocks that may have marked the transition to another room to the west.

Room 11E, on the north side of the courtyard, measured 2.1 × 1.7 m in size. A door in the south wall led in from the courtyard, and features on the east side of the room show that it functioned as a private latrine (Plate 88D). Two conduits in the south wall (11012) supplied water. A small conduit fed a runnel on a raised platform above the waste channel (11109). Having passed across the runnel, water

then drained into the waste channel. A second, larger conduit entered directly into the waste channel. Notches for a wooden bench suspended over the waste channel are preserved in the walls above the north and south sides of the waste channel. The source of the water is not clear, but it may have come from the southeast, as it did in a later building phase (see Middle Imperial 1 Phase). Water in the waste channel escaped through a drain (11113) that ran through wall 11011. From there the drain continued east, under the floor of Room 11A, and discharged into the street through an opening in the east wall of Room 11A (11013) (Plates 77, 79A).<sup>171</sup>

**NORTHERN ROOMS:** The excavators identified parts of three rooms on the north side of wall 11018. None communicated directly with rooms to the south, and it is possible that the northern rooms belonged to a separate property. The north part of Room 11F extended outside the excavation area, but the excavated part included the top of a cistern. A partition between two rooms to the west appears to have involved wall 11088, which abutted wall 11018 at an odd angle.<sup>172</sup> On the west side of the possible continuation of this wall to the north (11084), the excavators found another cistern (11082) covered by a rectangular limestone slab (1.08 × .76 × .10 m) with a notch in one corner to accommodate an adjacent limestone block (Plate 88E). A hole in the slab (diameter 58 cm) gave access to the cistern, which had a depth of 8 m. A round depression near the northwest corner of the slab may have marked the stand for a bucket. Iron clamps were found on the northeast and southeast corners of the slab, perhaps to secure a metal cover, or for the attachment of a rope or chain. A floor of marble and terracotta tile in gravelly mortar was found at the very northwest corner of the trench, abutting wall 11084 and the cistern. A layer of wall plaster, slightly scorched but preserving traces of red and white color, had been applied to wall 11084 after the floor had been installed; the same kind of plaster was also found on the north face of the cistern cover.<sup>173</sup> The date for the floor is uncertain.

#### EARLY IMPERIAL PHASE

The southern side of the House of the Fountain was rebuilt in this phase, with pier-and-panel walls apparently replacing some of the earlier ashlar walls. The relative phasing of the new walls is clear. Two of the replacement walls, the south and east walls for Room 11D, were constructed with piers of square limestone blocks (50 cm on each side) and infill panels in courses of fired brick and mortar (Plate 81A).<sup>174</sup> The south wall of Room 11C, wall 11017, abutted wall 11011 and had infill panels of roughly laid rubble (Plate 81B). A long ashlar block from the previous phase had been left in place at the wall's east end. A make-up layer in Room 11C (context 11071) abutted the west and south walls of the room (walls 11017 and 11011) and contained Eastern Sigillata A of the first century A.D. and lamp-fragments of the late first or early second century. This was found beneath a

compacted earth floor (context 11048). It would appear that both walls were standing by the early second century A.D., and that the walls with brick infill for Room 11D preceded the wall with rubble infill on the south side of Room 11C. In addition, the excavators found an occupation level on the floor of Room 11C (excavated as part of the floor) attributable to the mid-Roman period.<sup>175</sup> At some point while the floor was in use, a pithos was inserted into the southwest corner of the room (Plate 82C).<sup>176</sup> Behind the pithos, a downspout in the corner of the room indicates hydraulic functionality of some kind in the area.

Probably dateable to the same time is wall 11042, which appears to have replaced the original ashlar partition wall between Rooms 11C and 11B. This is constructed of rough limestone blocks bonded with earth, and a doorway (later blocked) was located on the west side of the surviving wall fragment.

#### MIDDLE IMPERIAL 1 PHASE

More additions were made sometime in the first half of the third century, including refurbishment of the water supply and the embellishment of walls and floors with mosaic and plaster decoration. Shortly thereafter, however, certain alterations indicate a period of decline shortly before the house's destruction in the Sasanian attack.

**EASTERN ROOMS:** Room 11C received a new doorway in its east wall (11110), giving the room direct access to the street.<sup>177</sup> Another doorway was added at the east end of the room's north wall. It replaced the previous doorway in wall 11042, which had been filled in with rubble. The new doorway consisted of upright ashlar flanking steps that led down to the floor of Room 11B. A terracotta drain (11067) was installed across the surface of the room (Plates 77, 82B, D). After passing under the blockage of the previous doorway in the north wall (11042), it exited the southeast corner of the room from under the new doorway in the east wall. The starting point is obscured by wall 11011, although it was probably a drain for a new fountain in the courtyard, and perhaps also a replacement drain for the latrine in Room 11E. A leveling deposit (context 11047) in Room 11C covered over the terracotta drainpipe and the pithos in the southwest corner of the room. The ceramic finds within the leveling deposit (context 11047) — cookware, pot stands, amphorae (including a Dressel 20) as well as some stray fine wares (Eastern Sigillata A and a worn fragment of Italian Sigillata) — date the stratum to the third century. A thick mortar floor (context 11028) sealed the leveling deposit.

Several changes also occurred in Room 11B, the most significant being the blocking of the door into the courtyard. An ashlar block, pierced with a hole to accommodate a vertical drain, formed the north part of the blockage (Plate 79B). To the south of this, roughly coursed rubble, also containing vertical pipes, blocked the doorway. The excavators identified a mortared surface (context 11043) abutting all four walls of the room, including the blocked



doorway, and covering over the continuation of the terracotta drainpipe (11067) that entered from Room 11C. Neither the surface nor its make-up layers (contexts 11045 and 11044) yielded datable material, but it is likely that the floor was laid at the same time as the new floor in Room 11C to the south. A mortared surface in Room 11A probably also belongs to this phase. The floor (context 11054) appears to have been installed at the same level as the floor in Room 11B. It abutted all four walls of Room 11A and was built over three layers of infill (11057, 11056, and 11055).<sup>178</sup>

**WESTERN ROOMS:** The blocking in the west doorway of Room 11B cut off access between the courtyard and the eastern suite of rooms. A fountain was installed up against the blockage on the west side of side of the courtyard (Plate 88C). The basin walls were made from three upright limestone slabs, mortared together and partially cut into the surface of the room. A molded cornice crowned the top of the basin walls and supported a plinth on which rested small Corinthian columns for support of a vaulted niche or baldacchino over the basin. An Attic base for one of the columns was found in situ by the excavators. The fountain was supplied in part by rainwater conducted from the roof via pipes embedded in the blocked doorway behind the basin. A small hole on the north side of the basin perhaps served as an overflow. The terracotta pipe in Room 11C probably also functioned in concert with the fountain, but any more about the function of the fountain is uncertain because the basin and the area to the immediate north of it was not completely excavated or recorded. The courtyard was further enhanced by the addition of stone curbs along the north and south sides of the room, and a mosaic pavement (M24) that abutted both curbs, the courtyard's east wall (11011) and the basin of the fountain (Plate 83D).<sup>179</sup> Excavation exposed only the geometric border of the mosaic on the east side of the courtyard; the excavators did not reveal the west side of the mosaic nor any deposits beneath it. The courtyard also received wall paintings at this time, traces of which survive on either side of the fountain (Plate 87B).

Like its neighbor to the north, Room 11D was enhanced in this phase when mosaic M23, featuring an elaborate figurative scene with an ornate geometric border, was laid across the room (Plates 84–86). This pavement was lifted and conserved by CCA and is now in the Gaziantep Museum. Although its make-up layer (context 11122) did not assist dating, the style of the mosaic puts it near the middle of the third century. The room's south and east walls preserved richly decorated painted plaster, consisting of a stylized design with geometric borders (Plates 87–88A–B). To the west the beginnings of a second mosaic were found, indicating that another highly decorated room was located in that area.

As mentioned above, the water system for the latrine in Room 11E was probably renovated at this time; the new system had water enter the fountain first, and then the latrine.

Room 11E probably also received a simple mosaic (M22) at this time, comprised of geometric patterns in green and blue tesserae (Plate 88D). The mosaic filled the room, abutting the northern, southern, and western walls as well as the support for the runnel of the latrine. At some unspecified time, perhaps shortly after it was put into position, the mosaic was repaired with unevenly laid tile fragments, some cut into triangles. Since the repair was located in the southeast part of the room near the plumbing for the latrine, it is possible that the patching resulted from repairs to the drain system.

#### MIDDLE IMPERIAL 2 PHASE

At some point before the destruction of the house the latrine in Room 11E went out of use. Two deposits (context 11106 and 11105) were found in the waste channel (Plate 80B). Both were loose and sandy, containing sherds encrusted with calcium, and both contained fragments of amphorae and jars dating to the mid-third century.<sup>180</sup> At the same time, the doorway between Room 11E and the courtyard was blocked, and the mosaic floor of Room 11E covered over with fill (contexts 11092, 11091 and 11090). The fill was covered by a mortar floor (context 11089) that abutted all walls of the room except the western wall (11147).<sup>181</sup> No finds were associated with the mortar floor, but since the finds in the underlying stratum (context 11092) include a coin of a Severan ruler (C168) and pottery characteristic of third-century destruction deposits, changes to this room must have occurred shortly before its destruction.<sup>182</sup> The filling of the latrine is an indicator for the fountain going out of use at the same time, because the two installations shared the same water system. These changes to the House of the Fountain are consistent with contemporary changes made to houses in Trench 2, where a number of rooms were converted in size and functionality in the years leading up to the Sasanian attack. The alterations to the House of the Fountain suggest that houses at Zeugma may have also suffered changes to the city's water supply, perhaps to accommodate a garrison or heightened defense of the city.

#### DESTRUCTION

Fire blazed through the house shortly after renovations to the courtyard and Room 11E. Context 11028 in Room 11C preserved the aftermath of the destruction. Here the excavators found a number of objects lying directly on the floor, including several iron objects (IR488, IR546, IR594, IR595, 5 nails) and part of a copper alloy padlock (BR63). Part of a pithos and a Middle Imperial amphora were also found here.<sup>183</sup> Several sections of terracotta pipe also lay scattered on top of the floor, possibly fallen from the southwest corner of the room (Plate 83A).<sup>184</sup> A thin, burnt layer (context 11062) covered the floor, and this in turn was covered by a destruction layer filled with rubble, charcoal, roof tiles, and pipe fragments. Although the layer did not contain materials that would allow for a specific date of

destruction, it resembled the mid-third-century destruction layers found elsewhere at Zeugma.<sup>185</sup>

In Room 11D, a series of destruction layers covering mosaic M23 also revealed evidence for the fiery destruction of the mid-third century (Plates 79C, 80A).<sup>186</sup> Layer 11039 was particularly rich in finds, including a coin of Gordian III (C96), a stone gaming piece, and a host of iron objects.<sup>187</sup> Context 11038, which lay above it, contained a fragment of a copper alloy scabbard plate (BR24), some copper alloy armor scales (BR25), iron bindings from a box or chest (IR100), and an iron ladle (IR179). Above this were more strata of destruction debris that probably represent the collapse of a second floor.<sup>188</sup> In one of these layers (context 11031), the excavators found a scattered hoard of eight coins, all dating to A.D. 244 (Butcher's Hoard 2).

Many layers of destruction also filled the courtyard.<sup>189</sup> Unlike the destruction layers to the south, however, these were virtually sterile. In the room with the cistern, at the far northwest corner of the trench, a deposit lying directly on the floor (context 11096) contained ash, charcoal, and tile fragments. The excavators also recovered parts of an iron chain, perhaps a fixture for the cistern. Above the destruction layer was a layer of collapsed mud-brick with lenses of charcoal (context 11097) and a copper alloy vessel (BR9), which may have been used for drawing water.<sup>190</sup>

#### LATE IMPERIAL / EARLY ISLAMIC PHASE

Building activity above destruction debris in the House of the Fountain belongs to the Late Imperial phase.<sup>191</sup> A rough limestone wall (11030) was oriented across Room 11A from north to south, overlying the room's north and south walls. Like the situation in Trench 5, the wall followed the orientation of previous buildings beneath it, and this suggests that parts of the House of the Fountain may have been visible when wall 11030 was built. In the northwest corner of the trench a water channel (11083) was built from reused limestone slabs. Absolute dates for these features were not revealed by finds, but their relative position after the Sasanian destruction of Zeugma is clear. At some point the entire trench was sealed by colluvium (context 11004).

#### *The Alley and the South Property*

An alley 1.3 m wide, oriented northeast to southwest, was located south of the House of the Fountain. It was defined by walls 11010 and 11017 on the north and walls 11009 and 11019 on the south. Context 11127, a compact layer abutting wall 11010 and probably wall 11009, was the earliest deposit recovered from the alley.<sup>192</sup> A terracotta drainpipe (11129) was inserted into this deposit, preserved from the western to the eastern limits of excavation. All of this was covered over by a surface (context 11065), but finds did not allow dating for any of these contexts. However, another terracotta drainpipe (11061) was inserted into surface 11065, and the fill around the drain (context 11046) contained pottery from the late second century to the first half of the third century A.D. (Plates 77, 80C). A stone-built drain also cut

into surface 11065, and several levels of silt were removed from the interior.<sup>193</sup> This was about 30 cm wide and had thin stone slabs for the floor, walls, and cover. The fill over the top of the drain did not contain material for dating (context 11136), but the excavators considered the stone drain contemporary with the terracotta pipe 11061. The alley was buried in fill that appeared to be collapsed mud-brick walling from the adjacent houses (context 11005).

Parts of another house were located south of the alley. Two walls (11019 and 11111) of this South Property were made of ashlar construction and probably contemporary with the first phase found in the House of the Fountain. These walls had doorways that communicated with the alley and the street to the east. At a later stage, all but the east section of wall 11019 was replaced with a wall of pier-and-panel construction (11009) with the panels filled with rubble. This may correspond to the Early Imperial phase of the House of the Fountain. Several destruction contexts found here mirror those found to the north.<sup>194</sup>

Parts of an isolated wall uncovered over 5 m to the south belong no earlier than the Late Imperial phase, and possibly much later. The wall was made of rough limestone blocks, some of which appeared to have been reused, and it was preserved in two aligned sections, perhaps separated by a doorway (walls 11007 and 11008). The wall was built into the same colluvium (context 11004) that covered over the Late Imperial wall over the House of the Fountain, and it does not share the same orientation as the South Property or the House of the Fountain.

#### *Conclusions*

The plan of the House of the Fountain in Roman times appears to have been identical to its earliest appearance. It was entered from the east through a vestibule (Room 11B) flanked by rooms that also had connections to the street in terms of doorways or plumbing. The vestibule led directly into a courtyard, which gave access to a small latrine (Room 11E) and a room set off from the courtyard by a screen of columns (Room 11D).

Household latrines are most often located near a kitchen or a courtyard, or under stairs, and so the position of the latrine in Room 11E appears to be standard.<sup>195</sup> The interior was fairly commodious, with a width of 1.7 m able to accommodate up to three people.<sup>196</sup> Unlike latrines at Pompeii installed over a cesspit or flushed with a bucket of water, the latrine in Room 11E appears to have been designed as a continual-flush toilet.<sup>197</sup> At Herculaneum this type did not appear until a citywide water supply system was established in the Augustan period.<sup>198</sup> These latrines, and the one in Room 11E, bear strong resemblance to public latrines with waste channels and runnels.<sup>199</sup> Public latrines of the second century B.C. are known from Thera and Amorgos in Greece and from the first century B.C. at Delos and Pompeii.<sup>200</sup> The latrine in the House of the Fountain is a reasonable indicator for the creation of a citywide water system at Zeugma.

In the Early Imperial phase, fired bricks in the infill panels of the walls of Room 11D demonstrate builders at Zeugma operating in a repertoire of materials familiar to other parts of the empire at the end of the first century A.D. In the Middle Imperial phase the same space was embellished with a polychrome figural mosaic pavement and vibrant wall painting, probably in support of the room's presumed function for banqueting and entertainment. At the same time, the courtyard was enhanced with a fountain. Fountains just like this one, small rectangular basins on one side of a decorated courtyard, are found in many houses at Zeugma and Antioch.<sup>201</sup> The addition of the fountain involved the bisection of the house between east and west, with the eastern rooms completely cut off from the house and perhaps given over to shops that faced a presumed street to the east. The northern and western limits of the house were not determined. Alterations in this phase are contemporary with similar changes to houses in Trenches 2 and 9. In Trench 11, some of the changes were short-lived, since the latrine and fountain went out of use before the house was destroyed in the Sasanian attack of A.D. 252/253.

### Trench 19

Trench 19 was located south of Trench 3, along a long terrace oriented north to south. Architecture and related deposits here dated from the second century B.C. to the first century A.D. (Plate 89).

#### SELEUCID PHASE

A limestone building constitutes the earliest activity in the trench; only a 2.0 × 1.5 m section of it was recovered in the southwest corner of the trench. Parts of the two walls that were uncovered were not bonded together, but they were built in the same manner, of small limestone blocks (20 × 20 × 30 cm) bonded with earth, and this suggests that they were contemporary (Plate 89C). An alleged construction deposit (context 19011) for the east wall was identified on the east side of the building, but it did not contain material to assist dating. The east wall abutted the north wall (19003), which was truncated by a later wall to the east that extended across the entire trench and may have functioned as a terrace wall (19009).<sup>202</sup> From over this wall and the southwest part of the trench the excavators removed a fairly compact yellow deposit with Hellenistic fine ware (context 19005) from the second half of the second century B.C.<sup>203</sup> This context was a make-up layer for a mortared surface (context 19002) that partially covered over the building in the southwest corner of the trench.

#### EARLY IMPERIAL ROBBING

The building in the southwest corner of the trench appears to have been built at some point before the middle of the second century B.C. The interior was not fully excavated and occupation layers from that early period were not identified. The excavators removed three layers of dumped

fill from the building. The earliest of these (context 19014) was a layer of rubble. Embedded in this layer and lodged in the corner of the building was the lower portion of a vessel (Plate 89D).<sup>204</sup> Above this, a second layer of rubble contained pottery of the first century A.D. (context 19008).<sup>205</sup> A silt layer above (context 19006) belonged to the same period.<sup>206</sup> These deposits appear to be connected to the robbing of the building.

#### DESTRUCTION / ABANDONMENT

Roman-period buildings and Sasanian destruction deposits were absent from this trench. A loose rubble surface deposit (context 19001) over the entire trench marks the sealing of the area by colluviation. This contained ceramic evidence of mixed date, including material from the first century B.C. and scraps of Islamic green-glazed pottery.<sup>207</sup>

#### CONCLUSIONS

The building in the southwest corner of the trench and the terrace wall next to it are only datable by an overlying deposit (context 19005) that shows they were in existence sometime before the mid-second century B.C. and robbed sometime in the first century A.D. The terrace wall may have functioned in tandem with the building, for they share the same orientation, although the removal of part of the building to accommodate the terrace wall shows that the terrace wall was added later. Too little was excavated to identify the building's function, but two loom weights and a spatula, perhaps used as a weaving tool, found within it hint at textile manufacture. Noteworthy is the absence of mid- and late-Roman pottery in the colluvium layers over the trench (context 19001 and 19000), where late Hellenistic material was predominant and some Islamic ceramics present.

### Trench 12

This trench, located south of Trench 7, occupied a declivity that sloped north down to the river. Excavation revealed parts of two buildings and related deposits that conform to phasing discovered in Trench 5, where a hiatus separated construction in Seleucid and Late Imperial times. In Trench 12, the excavators found part of a Seleucid-era building covered over by part of a Late Imperial house, with some evidence for modification to the earlier building in Commagenian times (Plates 90–95).

#### SELEUCID PHASE

Only one wall (12045) is dated to this phase, and it appears to have belonged to a room that had its other walls replaced in later periods (Plates 94B–C). The wall was made from large ashlar blocks (ca. 1.20 × .60 × .60 m) all laid as headers with an earthen mortar in the vertical joints. Rising water in the reservoir prevented the excavation of more than three courses. The northeast face of the wall was much better finished than the southwest face. The northeast face had

small holes (15×15 cm) cut into several of the blocks. The purpose of these holes is unclear, but perhaps they were used to support scaffolding. Finds were not associated with this wall to help date the time of construction, but the style of the masonry is consistent with datable Seleucid walls elsewhere at Zeugma, especially in Trench 7A.

#### COMMAGENIAN PHASE

At some point the Seleucid wall was incorporated into a room about 5 m square (Plates 90, 94B). It is conceivable that the new walls replaced earlier ones in the same locations. The new walls abutted the northeast face of the Seleucid wall, and they were all made of ashlar masonry, although with blocks smaller in size (57×75×50 cm), less carefully worked, and without holes (Plate 91). Rubble filling at the east end of the northwest wall (12009) may mark a blocked doorway.<sup>208</sup> Due to rising water, the excavators were unable to investigate the interior of the structure, and occupation levels were not found.

Together the four walls formed a square building with a doorway on the northeast wall. Parts of the southwest and northeast walls extended beyond the exterior corners of the room. The structure brings to mind defensive architecture—a square tower set within a curtain wall—even though Trench 12 is not located near the edge of the city where defenses might be expected.

Several exterior surfaces were associated with the structure. The two earliest deposits—southwest of wall 12045 (context 12048) and further to the north (context 12063)—were compact with a high density of limestone chips, perhaps deposited during the trimming of the walls. Above this, contexts 12047 and 12067 were make-up layers for surface 12021, also compact and filled with limestone chips and associated by the excavators with surface 12075, a similar feature located north of wall 12009. None of these surfaces or their make-up layers yielded datable material.

Evidence for Roman buildings sealed by Sasanian sack deposits is absent from this trench. In Late Imperial times the building was filled with debris that appears to belong to clean up of mid-third-century A.D. destruction deposits elsewhere in the city.

#### LATE IMPERIAL PHASE

A number of walls belonging to a much later stage of construction were found across the trench (Plate 90B). The earliest of these appears to be a pier-and-panel wall (12007) built on surfaces on the north side of the Seleucid building (contexts 12021 and 12075) with panels of limestone rubble in an earthen matrix and piers of reused blocks, including one with a cross motif (Plates 93A, 94E).<sup>209</sup> This wall was abutted by a wall of the same construction technique built on top of the northeast wall of the Seleucid building (wall 12006). This is the only wall in this phase of construction that conforms to the same orientation as the Seleucid building. One of the panels contained a reused dentil cornice. The construction technique, especially the appear-

ance of spolia, suggests that walls 12006 and 12007 were contemporary. Because both extended beyond the limit of excavation, functionality could not be determined. A surface of limestone chips in an earth matrix (context 12054) may have been installed south of the building at this time, since it abutted walls 12006 and 12015.

Following the construction of these walls, the space between the Seleucid building and wall 12007 was filled in with rubble (context 12076). The door in the northwest wall of the Seleucid building was also blocked with rubble at this time, and the interior of the building was filled with rubble.<sup>210</sup> In the upper levels of the rubble the excavators found a deposit of mixed rubble and debris that included roof tiles and several sections of broken mosaic pavement, including one fragment with the name of a patron or mosaicist (Plate 95).<sup>211</sup> All of this was sealed by a compact earthen floor (context 12026) that abutted the pier-and-panel wall to the east (wall 12006). The pottery in the deposits under the floor was residual, with nothing obviously later than the first century A.D., but a coin from context 12016 (C134) dates to Marcus Aurelius, and, according to Dunbabin, the mosaic fragments are of a style consistent with those found in situ in houses destroyed in the Sasanian sack. The make-up deposit for the new floor in the building appears to consist of debris from the clean up of a nearby house destroyed in A.D. 253. In general, the make-up deposits suggest that the renewed building in this area belongs at some point after the middle of the third century A.D.

In the northwest corner of the trench, the excavators found another pier-and-panel wall (12008) that abutted wall 12007.<sup>212</sup> A stone-lined water channel (12073/12074) ran through the lower part of the wall. On the east side of the wall the channel released water into a basin carved from an ashlar block, whose foundations cut into surface 12075 (Plates 94E, 95A). The block was .75×.50×.50 m, and a hole on the east face may have been an overflow device. Walls 12007 and 12008 may have been enclosure walls, and the basin may have functioned as a water trough for animals. In the northeast corner of the trench, the excavators found two walls of unfaced rubble (walls 12038 and 12043). These abutted walls 12007 and 12006 and seemed to form a small room. Outside the room to the south, the excavators found a compacted earthen surface (12040) abutting wall 12038 and covering over a terracotta drain (12039), but datable material was not recovered for these contexts.<sup>213</sup> In the absence of datable material, the physical connections that the features on the east and west sides of the trench share with the post-A.D. 235 changes to the building in the middle of the trench suggest that all of this renewed activity belongs to the Late Imperial phase.

#### DESTRUCTION AND ABANDONMENT

There is evidence for destruction in the east part of the trench, where the Late Imperial walls were covered over by a burnt layer with tile, rubble, and bone (contexts 12012 and 12011). Pottery from these contexts belongs to the sev-

enth century A.D. on the basis of the latest forms in African and Phocaean Red Slip Ware.<sup>214</sup> The eight coins collected from these contexts, however, all date to the sixth century A.D. and may represent a dispersed hoard (C226–233). Context 12011 contained a terracotta figurine (TC9) and a glass bracelet (GIII). Colluvial deposits sealed the area after abandonment.<sup>215</sup>

#### CONCLUSIONS

Like Trench 5, Trench 12 demonstrates that in Roman times some parts of the city were not consumed by high-density housing of the type discovered in Trenches 2 and 9. Still, the dumped mosaics show that residential architecture was probably located close by. The Late Imperial phase appears to have involved the refashioning of part of a Seleucid building into an enclosure with an open water supply, perhaps for animals. Indications of an adjacent residence appear on the east side of the trench, but the evidence for this is not clear. Most compelling is the seventh-century destruction deposit in this area that shows that Zeugma had risen from the destruction of A.D. 252/253 and reestablished itself as a place for settlement. A house in Trench 12 may have belonged to a group of Late Imperial properties that include the Late Imperial Peristyle House in Trench 7. These buildings, in connection with evidence for Late Imperial building found in University of Nantes excavations in Chantier 9 to the north, suggest a focus of Late Imperial occupation in the western part of the city.

#### Trench 7

Trench 7 lies immediately south of University of Nantes excavations in Chantier 9, where evidence came to light for occupation from Hellenistic through Islamic times.<sup>216</sup> Trench 7 revealed occupation from Seleucid times through the Early Imperial phase, as well as good evidence for activity during the Late Imperial phase. Evidence for the Middle Imperial phase and the Sasanian sack was scarce. A few fragments of Ummayyad pottery were found, but not in construction or inhabitation deposits.

Buildings here occupied terraces about 6.5 m wide, oriented east to west (Plates 96–104). The excavators divided the trench into three areas: Trench 7A, Trench 7B, and Trench 7C. Trench 7A contained a building dating to the Seleucid through the Early Imperial phase. Trench 7B had a courtyard house of the Late Imperial phase. In Trench 7C the excavators found a street and part of another building of the Late Imperial phase.

#### Trench 7A

##### SELEUCID PHASE

A foundation trench for wall 7017 at the very north of the trench contained Hellenistic fine ware (context 7067).<sup>217</sup> The wall was of solid ashlar construction, with blocks measuring .70–1.16 m long, .45–.56 m wide, and .60 m tall. Similar to wall 12045 in Trench 12, the blocks were all laid as

headers that were only trimmed and finished on one side of the wall, in this case the north side (Plate 101C). The south side of the wall had an ashlar pierced with a vertical hole, and a terracotta pipe (7075) nearby ran roughly parallel to the wall.<sup>218</sup> Another ashlar wall (7071) abutted the wall's northwestern end. These ashlar walls appear to have been connected to a building equipped with a water system, but beyond this, deposits were not informative.

A multiroom structure with walls of rough ashlar bonded with earth was located to the south (Plates 97, 101). Wall 7011/7014 formed the northern terminus and was bonded to wall 7010, which divided the building into Rooms 7A and 7B.<sup>219</sup> The building's south and west walls had the same construction technique (walls 7038 and 7009), but the east wall appears to have been completely robbed. Other walls indicate that the building may have continued to the west, but these were not fully excavated or drawn. Rooms 7A and 7B were connected by a broad doorway in wall 7010. Floors contemporary with these walls were not discovered.

An alley between the multiroom structure and wall 7017 preserved two paved surfaces. The upper surface (context 7049) had compacted earth mixed with limestone chips. This covered over the lower mortared surface (context 7166), which was poorly preserved but rested on a loose, ashy layer (context 7029) deposited directly on the rock-cut terrace, with indeterminate Hellenistic pottery and a Seleucid coin from the late second to early first century B.C. (C5).

#### COMMAGENIAN PHASE

The building underwent several stages of remodeling, including a new rubble wall (7008) against the inside of the north wall in Room 7A, perhaps as a buttress, and a clay surface (7216) in the room over a leveling layer (contexts 7353 and 7103).<sup>220</sup> Room 7B appears to have been partitioned into at least three spaces with the addition of walls 7138 and 7167.<sup>221</sup> A loose fill in the northwest room created by the new partition (context 7118) contained pottery of late Augustan or Tiberian date.<sup>222</sup> This served as a leveling layer for a mortar floor (context 7117) on which the excavators found a thin occupation deposit with scanty pottery of Augustan date (context 7116).

#### EARLY IMPERIAL PHASE

A later phase of remodeling in Room 7A involved the addition of a new south wall (7013) built on top of the clay surface. A layer of occupation debris (context 7007) on the clay surface abutted all four walls of the room.<sup>223</sup> This included a lamp (L9), an iron arrowhead (IR29), a glass stirring rod, and an intaglio.<sup>224</sup> The pottery associated with this context was Flavian.<sup>225</sup> A new wall (7137) was added to the east side of Room 7B, constructed of reused ashlar blocks set in clay mortar (Plate 101F). On the west side of the wall the excavators found a mortared floor (7115) that sealed Augustan-period occupation debris beneath it (context 7116) as well as wall 7138; finds from this surface dated to the

Flavian period. Shortly thereafter, the room was resurfaced with another mortared floor, (7021) over a leveling layer (context 7023) rich in pottery of the Flavian period.<sup>226</sup>

#### DESTRUCTION

Several layers of collapse buried both rooms of this modest structure. Evidence for charcoal and ash suggests violent destruction, but the deposits were devoid of finds helpful for dating.<sup>227</sup>

#### CONCLUSIONS

The building in Trench 7A probably belongs to the second century B.C. and was renovated several times before it went out of use in the late first century A.D. Noteworthy is the absence of the Sasanian-sack layer pervasive in other parts of the city. The absence of physical connections between the buildings in Trench 7A and deposits in Chantier 9 and Trenches 7B and 7C prevent meaningful comment on functionality.

#### *Trench 7B*

Trench 7B revealed impressive remains of a house built in the late fourth century and destroyed in the seventh century, here named the Late Imperial Peristyle House (Plates 97–100, 102–104). A complete plan of the house was not recovered, but enough was excavated to show that it had a courtyard surrounded by corridors on three sides and ancillary rooms to the north and south. A stairway suggests the presence of a second floor over the rooms to the south.

#### LATE IMPERIAL PHASE I

A sondage in Room 7D revealed two rocky layers (contexts 7145 and 7144) that served as a construction make-up for the house (Plate 98B). On these layers rested the foundations for the room's south wall (7194), made of well-finished ashlar blocks (23 × 16 × 23 cm) that were carefully coursed and interspersed with green schist fragments. Walls abutting the north side of wall 7194 defined three rooms (7C, 7D, 7E) that opened onto the south corridor of the peristyle (Plates 97, 98C). All three rooms had windows on the south wall that probably opened onto an open-air space bound on the west side by wall 7195, on the other side of which a street oriented north to south defined the western limit of the house. The earliest layer identified south of wall 7194 was a deposit of brown, silty clay with small limestone inclusions and pottery dated no later than the second half of the fifth century (context 7064).<sup>228</sup>

**ROOM 7C:** Room 7C measured 3.4 × 2.0 m in size. The west wall (7196) had pier-and-panel construction with limestone rubble panels bonded with earth, and was inferior in quality to the room's south wall. The room's north wall was also pier-and-panel style, with a well-built doorway with piers for doorjambs. Several limestone slabs formed the threshold; a rectangular socket in the east slab would have held a wooden doorpost. The room's east wall (7193)

was constructed of roughly rectangular limestone blocks in an earthen mortar. The window on the south wall had a windowsill of limestone blocks but without cuttings for a frame or grating.

The excavators found three early deposits in this room: a layer of limestone rubble (context 7287), a silty layer above it (context 7092), and a leveling layer (context 7141) for a floor (context 7063) (Plate 98A). The leveling layer abutted the room's south wall (7194) but was cut by the foundation trench for the room's west wall (7196). Finds from the leveling layer include a sherd of a Late Imperial Syrian painted amphora and a coin (C207) of Jovian (A.D. 363–364). The floor above it was rather patchy but traceable throughout the room; it covered the foundation trench for the south wall and abutted the wall.

**ROOM 7D:** The largest of the three rooms south of the peristyle measured 3.4 × 3.0 m (Plates 98B, 102A). The doorway in the north wall had a limestone threshold block like the one in Room 7C. The east wall (7190) was of fairly flimsy construction. The window in the south wall was like the window in Room 7C. The room had a clay floor (context 7074), and in each corner the excavators found rough rings of stones, perhaps for the support of storage vessels.<sup>229</sup> All four wall faces were coated in a yellowish clay plaster.

**ROOM 7E:** This room measured 3.4 × 1.8 m in size (Plates 102B–D). The east wall (7187) was made of pier-and-panel masonry. The south wall had two small windows and the north wall had a doorway leading into the south corridor of the peristyle (Plates 98C, 102C). The threshold was built of a single limestone block with a pivot hole and a square socket for a doorpost.<sup>230</sup> A second doorway, presumably leading to the outside, was located at the south end of the room's east wall (Plate 102D). Two leveling layers were found in this room (contexts 7250 and 7150), neither of which yielded datable material. Nor did the compact floor that covered them (context 7272). Remains of an earlier structure came to light under Room 7E, but little can be said about its date and function.<sup>231</sup>

**COURTYARD:** The open-air courtyard had a peristyle and corridors on three sides (Plates 97, 103). The west wall of the west corridor appears to have separated the interior space from a street outside. The east wall of the east corridor appears to have had a doorway that gave access from the south corridor to an uninvestigated space to the east. In its initial phase, the courtyard measured 5 m square and consisted of a central paved court surrounded on the west and south by columns and on the east by pillars. The original arrangement on the north was obscured by later modifications. Plinths with a squared bottom and rounded top supported the columns. A stone curb ran between the plinths and the pillars on the east side of the court. The earliest surface of the court (context 7257) was a compacted limestone chip deposit over a make-up layer (context 7258). Above this a

flagstone pavement (context 7242) rested on top of another make-up layer. The paved surface extended as far as pillar 7246 in the north and abutted the curb wall surrounding the court.

**CORRIDORS:** Deposits in the south corridor were investigated by means of a sondage in front of Room 7D (Plates 99A–B). A make-up layer (context 7301) extended across the entire width of the corridor, and a limestone step set into this layer facilitated access to the room. The leveling layer supported a floor (context 7300) that abutted the step as well as the curb, lying about 10 cm below the top of the curb. The west corridor gave access to a staircase that probably led up to a second story over the suite of rooms on the south side of the courtyard (Plates 103, 104B). The remains included seven limestone risers (1.30 × .40 × .20 m) built on rubble packing.

**AREA NORTH OF THE COURT:** This part of the trench was only partially excavated; phasing is confused by several stages of rebuilding. A corridor or portico probably limited the courtyard on its north side, but evidence for this is not clear. The excavators found a floor (context 7135) resting on a make-up layer (context 7136). The floor was mortared and may have been contemporary with the flagstone surface of the adjacent court.

#### LATE IMPERIAL PHASE 2

In subsequent phases the floors in the corridors were renewed several times; structural changes to the corridors did not accompany these renovations. Finds were not associated with these floors or leveling layers beneath, but renovations took place after the construction of the house in the later fourth century and before the extension of the courtyard in the early sixth century (see below).<sup>232</sup> In the area north of the courtyard, a new floor (context 7359) was installed over a make-up layer (context 7129) deposited on top of the previous floor (context 7135).

#### LATE IMPERIAL PHASE 3

In the first half of the sixth century the colonnade on the west side of the court was shifted west and extended north. An extra column was added to the southwest corner of the peristyle (Plate 103B). The westward shift narrowed the west corridor. The resulting gap between the old flagstone floor of the courtyard and the new colonnade was filled with more flagstones. As was the case with the earlier colonnade, the new west colonnade consisted of columns on plinths built into a curb.<sup>233</sup> The new colonnade had four columns to the previous colonnade's three, and it extended several meters north of the old courtyard. To balance the arrangement on the west, a fourth pillar was added on the north end of the three pillars on the east. Within the new northern extension of the courtyard a new drain was cut into the old floor (context 7359). This stone-lined drain (7211) ran west through the curb for the west colonnade before

turning to the northwest. A make-up layer (context 7128) and a compact earthen floor (context 7127) rested on top of the drain, the floor serving as a repair and extension of the old flagged surface. The pottery from the make-up layer included three sherds of Phocaeian Red Slip Ware, one of which was a rim of Hayes Form 3F, datable to the first half of the sixth century; these finds provide the date for these renovations.<sup>234</sup>

By the time of the extension of the courtyard, a layer of occupation debris (context 7079) had accumulated on the floor in the west corridor (context 7080). The occupation debris and the floor below it were cut by the insertion of the west colonnade and the drain (7211). As a consequence, a new floor was installed in the corridor (context 7078); pottery associated with this floor include fragments of Late Imperial Syrian painted amphorae.

At a later stage, a foundation trench for a new wall at the north end of the newly extended courtyard (7158) cut through the three floors described above. The wall was of pier-and-panel construction and is preserved to about 3.5 m long. The west end of the wall was robbed out. The preserved section had a doorway between two pillars. A stone shelf had been built on the east side of the east doorjamb. The doorway connected the courtyard to a room to the north that was not investigated. A sondage in the northwest corner of the trench revealed several features that may relate to this room. Noteworthy is a drain (context 7081) that perhaps functioned in tandem with the drain under the west corridor (7211), and a pithos set into floor 7181.

#### DESTRUCTION

Throughout the Late Imperial Peristyle House there was ample evidence of destruction by fire, followed by the collapse of the building (Plate 102E). Pottery finds show that the cataclysm took place in the mid-seventh century, perhaps due to Arab invasions following the battle of Yarmuk. Particularly rich were finds in the southern suite of rooms, where the excavators found vessels and other objects in sealed deposits on floors. On the floor of Room 7C, an ash-filled destruction deposit (context 7062) contained several complete or nearly complete vessels: amphorae (AM334–336), a small, handle-less jar (PT550), a nearly complete amphora lid (PT539) and another fragmentary one (PT538), two lamps (L149, L194), and a coin of Justinian (C225). This was covered by another stratum of the same destruction deposit (context 7286) laden with ash and roof tiles.

A thin occupation layer (context 7073) on the floor in Room 7D contained the base of a Syrian painted amphora of Late Imperial date and an illegible coin (C265). The layer above this (context 7036) had another intact handle-less jar (PT581), a complete conical lid (PT544), an almost intact amphora lid (PT558), a large part of a painted jug (PT572), a cooking pot (PT584), and a reused base for a large storage vessel (PT594). Other finds from this context include a

stone spindle whorl (SW59), a lamp (L145), and half a glass vessel (G59). All of this was sealed by a collapse deposit (context 7004) with many amphora fragments (AM270–276).

Room 7E had an extensive floor deposit of the seventh century (context 7065/7006). Context 7065 contained four complete vessels: a handle-less jar (PT582), two amphora lids (PT538, PT579), and a three-handled cup (PT576), as well as other ceramics, including two amphorae: AM285 and AM349. In context 7006, the excavators found a rim of Hayes Form 10C in Phocaean Red Slip Ware attributable to the first half of the seventh century. Also from these contexts were two lamps (L8, L151) and a bone handle (B23).

The destruction debris overlying the corridors around the courtyard contained more finds of note. A complete jug (PT547) and a large part of a globular corrugated spouted cook pot with a kettle inside (PT591) were found resting on the floor just outside the doorway to Room 7E. Deposits surrounding these vessels (context 7076) contained two intact amphora lids (PT486, PT558) and a small iron strap.<sup>235</sup> In the layer of collapse that sealed these finds (context 7026), the excavators recovered a complete painted amphora of the seventh century (AM295) and a rim of Hayes Form 10C in Phocaean Red Slip Ware (PT527) of the first half of the seventh century. Another painted jug (PT573) was found on the floor in the south corridor (context 7203), along with two fragments of fine ware: one Hellenistic, and one of the fifth century or later. A seal stone (SF 622) and an iron strip (SF 624) were retrieved from a collapse deposit (context 7186) between pillars on the west side of the courtyard (pillars 7281 and 7268), and a complete three-handled buff-ware basin (PT578), a bone bead (SF 742), and rims of Hayes Form 10A and 10C in Phocaean Red Slip Ware were found on the floor next to the east end of the wall added to the north side of the courtyard (context 7066). The excavators thought that the basin might have fallen from the stone shelf on the south face of this wall (7158).

On the flagstone floor of the courtyard itself, fragments of Syrian painted amphorae and smaller painted jugs, two spindle whorls (SW26–27), a disc made from antler (B15), a glass bracelet (G112), and an iron blade (IR151) were found in a destruction layer filled with ash and collapsed architectural debris from the peristyle's columns, pillars, and mud-brick walling (context 7201) (Plate 102E). A deposit overlying the drain on the northwest side of the courtyard contained fragments of Hayes Form 10A and 10B in Phocaean Red Slip Ware dated to the seventh century (context 7214).<sup>236</sup>

The excavators found a deep layer of destruction debris dating to the seventh century (context 7005) on the south side of the house, overlying the surface outside the house (context 7064) and running up against the south face of wall 7194. This shows that much of the upper story of the house had collapsed to the south. The deposit contained a substantial part of a Hayes Form 10C dish in Phocaean Red

Slip Ware (PT525) and amphora fragments of the seventh century (AM277–278, AM280).

From mixed debris that sealed the collapse deposits across much of the house, the excavators recovered small finds and pottery (context 7060). Noteworthy finds include nearly complete vessels: a painted jug (SF 499), an amphora (AM324), a dish of Hayes Form 10B in Phocaean Red Slip Ware (late sixth century), and a fragment of glazed ware, possibly Islamic. The deposit also contained part of an Umayyad corrugated casserole. Other finds include several lamps (L147, L158–160), a stone bowl fragment (SV2), a quern (Q15), a spindle whorl (SW60), six column bases (A38–A43), and seven column drums (A44–A50).

#### CONCLUSIONS

The Late Imperial Peristyle House in Trench 7B was constructed in the second half of the fourth century and destroyed in the first half of the seventh century. The courtyard was surrounded by corridors on three sides and expanded to the west and north during occupation of the house. At least one of the three adjacent rooms to the south may have been used for storage, and rooms above these, suggested by the stairway, may have served as the private living quarters. The view to the north from the upper story, across the courtyard below and down into the river valley, must have been pleasurable. Drainage from the courtyard flowed to the north, following the lay of the land. The house was not completely excavated, but even in its incomplete state of investigation it is noteworthy as a “pure” late antique peristyle house, built on virgin territory, rather than adapted from an earlier house.<sup>237</sup> Unlike many late antique houses, the Late Imperial Peristyle House does not appear to have suffered subdivision. On the contrary, the only major adaptation seen in the house was an enhancement — the expansion of the courtyard and broadening of the peristyle. The widening of the courtyard on the north, in conjunction with a new room on the north side of the courtyard, may have amounted to a new focus on a decorated room for dining and entertainment.<sup>238</sup>

#### *Trench 7C*

##### LATE IMPERIAL PERIOD

Trench 7C revealed a street oriented north to south and flanked on the east by a boundary wall for the space, presumably open-air, behind the Late Imperial Peristyle House in Trench 7B, and on the west by a smaller building, probably domestic in nature. The few finds recovered from this area indicate occupation during the Late Imperial period.

Wall 7195 was made of pier-and-panel construction with much reused material, including an inscription (Plate 99c).<sup>239</sup> The street to the west had a shallow drainage gully (context 7342) limited on the west by a stone curb (context 7346) (Plate 101B). At some point the street was repaved with a hard surface (contexts 7314 and 7316). Although it observed the earlier drainage gully, the new sur-



face involved the installation of new curb (context 7343) on the west side of the gully. Pottery recovered from the fill of the gully was Late Imperial in date.<sup>240</sup>

A poorly preserved structure with at least two rooms was discovered on the west side of the street. The walls of the south room (7312/7313, 7317 and 7318) incorporated much reused material, including a column drum in wall 7317. The east wall had a doorway leading out into the street. A long, rough step, abutting the eastern face of wall 7317 and lying on the street, marked the path between the room and the outside. On the floor of this room the excavators found a leveling layer (context 7322), although not sealed by a floor, with pottery from the fifth century.<sup>241</sup>

North of this room, the excavators found a small space enclosed by walls on the north (7315), south (7313), and east (7320). The west wall may have been just outside the limit of excavation. A doorway in the east wall was marked by a threshold; beyond this, on the east side of the wall, a surface (context 7324) was found at the same elevation as the street. A leveling layer (context 7329) under this surface contained pottery of the Late Imperial period.<sup>242</sup> Later modification to the north room involved the insertion of a leveling layer (context 7330) east of the doorway. This supported a new wall (7319), only partly preserved, that may have blocked the doorway. A drain (context 7333) constructed of reused tile fragments with a limestone capping was built over the south end of the doorway, from which it ran north along the east face of the threshold. Excavations in Trench 7C did not produce evidence for destruction, but the structure appears to have suffered abandonment, collapse, and burial by colluviation.

#### CONCLUSIONS

The wall flanking the street on the east was in position by the fifth century; the building across the street appears to belong to the same period. The north-to-south orientation of this street followed the orientation of earlier streets at Zeugma, like those identified next to properties in Trenches 2 and 11. Buildings in Trench 7C, along with discoveries in Chantier 9 to the north and Trench 7B, show that this part of the city was heavily occupied during the Late Imperial period.

#### Trench 18

Trench 18 was a long narrow excavation area that revealed several features: a series of early pits, a house constructed in the mid-second century B.C. (the Mud-brick House), a poorly preserved ashlar structure of the Seleucid or possibly Commagenian period, and a house constructed in the first century A.D. (the House of the Plastered Floor). The houses were destroyed in the mid-third century A.D., and there is no evidence for later reoccupation of the area (Plates 105–115).

#### SELEUCID PHASE 1

**PITS:** Excavation in the south part of the trench uncovered several rock-cut pits that predate the trench's earliest building, the Mud-brick House. North of the later Mud-brick House, a circular rock-cut pit (18144) was surrounded by a rough, limestone rubble wall (18170).<sup>243</sup> Five more rock-cut pits were found to the south of the later Mud-brick House (Plates 106, 111C). Excavation of the largest pit (18116) revealed loose pale sandy soil with local Hellenistic fine ware (context 18115) covered over by a burnt layer (context 18117).<sup>244</sup> Pit 18112 was surrounded by a low limestone and mud-brick wall, and it was filled with burnt material and pottery consistent with a Hellenistic date (context 18114) and sealed by a layer of stones.<sup>245</sup> To the east, three contiguous circular pits (18099, 18100, and 18101) were surrounded by a low wall on the west side of each, just like the wall around pit 18112. The fill of these three pits, excavated as a single context, contained pottery from the first century B.C. to the first century A.D.<sup>246</sup>

#### SELEUCID PHASE 2

**THE MUD-BRICK HOUSE:** Over pit 18144 and to the north of it, the excavators found a broad construction fill deposited on bedrock (contexts 18145, 18143, 18128) (Plate 110A). The presence of two sherds of Eastern Sigillata A in context 18143 dates the fill to the mid-second century B.C. and provides a terminus post quem for the Mud-brick House built on top of it. The Mud-brick House, named for the mud-brick walls of its initial phase, had at least two rooms. The west room, Room 18A, was only partly excavated, for it continued into the western limit of excavation (Plate 111E). The walls were mud-brick laid on bedrock foundations, as seen in the room's east wall, where a raised stone foundation supported a mud-brick wall above (18132). The room's south wall (18129) was also constructed of mud-brick built around a high-standing section of bedrock on its east end. A rock-cut trench is the only vestige of the room's north wall, which was presumably also mud-brick. The trench truncated the wall around pit 18144, showing that Room 18A came later, and suggesting that the pit may have gone out of use by this time. A compact earth floor covered over the bedrock in Room 18A (contexts 18125 and 18138). At the same time, the mud-brick walls were covered with rendering and painted plaster with panels in relief in masonry-style painted stucco.

Room 18A communicated with Room 18B through a doorway in its east wall marked by a limestone threshold (context 18158) (Plates 112A–B). Excavation only took place in the west part of Room 18B. The west wall of mud-brick and bedrock is discussed above. The south end of the room's west wall and all of its south wall were built on raised rock-cut ledges. The original north wall of the room does not survive, but it was probably contiguous with the north wall of Room 18A. It was later replaced by wall 18075 (see p. 105). A leveling layer inside the room (context 18097) contained a sherd of Eastern Sigillata A, and

this provides a *terminus post quem* for Room 18B of the mid-second century B.C. Above the leveling layer was an earth floor (context 18072) that contained two copper alloy objects: a small bell (BR103) and a cosmetic tool (BR47). It is conceivable that these objects belong to the destruction layer that covered the floor.

At the north side of Trench 18, a stone water channel (18020/18021) was constructed on bedrock (Plates 109A, 112E). Only a small section was available for investigation—later walls covered its north side, and its southern reaches were damaged by mechanical excavation used for the initial clearing of the area. A silty gray deposit was found inside the channel. Although the excavators found nothing to help date the construction of the channel, it is clear that it was in place before the creation of the House of the Plastered Floor. It may have been installed in conjunction with the Mud-brick House, since the orientation of the drain matches the house.

#### LATER SELEUCID OR COMMAGENIAN PHASE

**ASHLAR WALLS:** Several walls of well-cut ashlar blocks measuring about 1.00 × .50 m in size and bonded with earth were built north of the Mud-brick House. One of these was constructed on a foundation wall of roughly coursed limestone rubble (wall 18207), and its east end rested on the water channel described above (Plate 112E). A doorway was marked by a threshold made of two long limestone slabs; two large pivot holes show that the doorway was double (Plate 115A). A small notch in the middle of the south threshold block probably accommodated a locking mechanism. The doorway gave access to the house from an alley. Two walls of the same construction abutted the south face of wall 18207, and these defined Room 18D: wall 18192 on the east side and wall 18026 on the west (Plate 112D).<sup>247</sup> The latter continued south to form the west wall of Room 18F, where a doorway at the south end of the wall was marked by a threshold block. Room 18D was flanked by Rooms 18C and 18E. Evidence for dating these walls is scarce; surfaces connected to the initial construction or use were not discovered. They appear to fall between the construction of the Mud-brick House and the House of the Plastered Floor, which incorporated these walls into its design.

#### EARLY IMPERIAL PHASE

**THE HOUSE OF THE PLASTERED FLOOR:** This house used preexisting walls in the north side of the trench in its plan, which had at least six rooms (Plates 106, 113–114). A remnant of plastered floor in Room 18G provides the name for the house: the House of the Plastered Floor. The phasing for this building is marred by several robbing trenches at the northwestern and southwestern sides of the trench, and by mechanized excavation that removed deposits from the middle of Rooms 18F and 18G. The eastern and western limits of the house lay outside the zone of excavation, but the south was limited by the Mud-brick House and the north by an alley. The excavators found a leveling

layer (context 18064/18052) inside Room 18D consisting of loose stones and tile in sandy soil, and it clearly abutted the ashlar walls and covered over the Seleucid-period water channel, but datable finds were not recovered.

**ROOMS 18C AND 18D:** Room 18D was limited on the north and east by late Seleucid-era walls. A new wall defined the room's southern limit (18018 and 18022); this wall had been robbed and was only preserved at the eastern limit of excavation, and at the west, where it abutted the foundations for wall 18026. It was installed at the same time as the room's leveling layer mentioned above (context 18064). The excavators found a series of fills in the room (contexts 18067 and 18066), covered by a thick make-up layer (context 18065) for a highly compacted floor (contexts 18063 and 18009) (Plate 108B).<sup>248</sup> The floor also covered over the exposed foundations of wall 18026 and continued west into Room 18C, where deposits are tricky because of proximity to the limit of excavation and stone robbing from adjacent walls. Nevertheless, it appears that the ashlar superstructure of wall 18026 was no longer in place or was intentionally removed to accommodate the new floor.<sup>249</sup> The floor contained scraps of pottery, including a fragment of Eastern Sigillata A of the first century A.D.

**ROOM 18F:** A doorway may have connected this room to Room 18D, but robbing obscures the original appearance of this room's north wall. The late Seleucid ashlar wall (18026) formed the room's western limit. The southwest corner of the room had doorways leading to the west into Room 18H and to the south into Room 18G. The room's south wall was a pier-and-panel wall with a single panel between two large piers (wall 18037; piers 18035 and 18038) (Plates 109B, 113B–D). A large gap in the wall marked a missing section of the panel of rubble bonded with clay, only preserved at its very lowest level.<sup>250</sup> The excavators reported tile paneling on the east side of the wall, and so the panel infill may have used brickwork, similar to walls in Trenches 11 and 13.

As mentioned above, a leveling layer had been deposited prior to construction of the house (context 18064). In Room 18F, this layer served as a make-up layer for a mortared floor (contexts 18062 and 18011) (Plate 108B). The pottery associated with this floor dated to the first century A.D., thus making it contemporary with the floor in Room 18D.<sup>251</sup> Traces of wall painting in two areas suggest that Room 18F had been well decorated. The room's west wall had been picked to receive plaster rendering, and painted plaster was preserved on top of this (Plates 109C, 114B). Pier 18035 had traces of wall painting on three sides (Plates 113B–C).<sup>252</sup>

**ROOM 18G:** Part of this room's west wall (18090) was robbed (Plate 113A). Remains show that it was of pier-and-panel construction, with the panels of limestone rubble bonded with earth. Its foundations cut into the Seleucid-period construction fill (Plate 110A). The surviving pier (18041) also served as a doorjamb for the doorway between

Rooms 18G and 18I. The room's south wall was also of pier-and-panel construction. This replaced the north wall of the Mud-brick House and served as a party wall between the two structures. The Mud-brick House may have been absorbed into the House of the Plastered Floor, although the poor condition of wall 18075 makes it difficult to know if there was a door between Rooms 18G and 18B.<sup>253</sup>

On top of the Seleucid construction fill, builders installed a mortared floor in Room 18G (context 18068) that abutted the walls of the room (Plate 110A). The excavators found traces of plaster (context 18069) covering the floor at the base of the room's three known walls (Plate 114E). Painted plaster also covered the north wall of the room.<sup>254</sup>

ROOMS 18H AND 18I: Only small parts of these two rooms were excavated. A doorway connected Room 18H and Room 18F (Plate 114C). The earliest floor identified in the former room was a cobbled surface whose northern reaches were disturbed by robbing (context 18045) (Plate 114D). The cobbles abutted wall 18026 but sat at a higher level than the old threshold in the adjacent doorway; this necessitated installation of a small stone step to help negotiate entry into the paved room. On the west, the cobbles abutted what appears to have been a stone curb exposed at the limit of excavation. At some point the cobbles were covered with a layer of white sand and silt (context 18046).

The east wall of Room 18I was made of pier-and-panel construction (18090) with a doorway that communicated with Room 18G. The south wall of the room replaced the older northern wall of Room 18A in the Mud-brick House. Room 18I was built over the old Seleucid-period construction fill. A column base was found at the western limit of excavation. The plinth (18147) abutted the paved surface in Room 18H to the north (Plate 114D). Rooms 18H and 18I appear to have belonged to a paved courtyard surrounded by columns. Rooms to the east (18F and 18G) probably functioned as ancillary rooms, similar to rooms arranged around courtyards in houses found in Trenches 2, 7, and 11. Mosaic pavements were not found here, but painted plaster adorned the east wall of Room 18I.<sup>255</sup>

THE MUD-BRICK HOUSE: The Mud-brick House was modified in this phase, including the addition of new north and south walls. As mentioned above, pier-and-panel wall 18075 replaced the northern wall of Room 18B, originally of mud-brick. The new south wall (18073) was constructed on top of the Seleucid-period floor and up against the rock-cut ledge that had supported the original mud-brick south wall of the room. Although the wall is poorly preserved, it appears to have been of pier-and-panel construction, with the panels constructed of limestone bonded with earth. No surface was associated with these walls, but the excavators were convinced that the two new walls belonged to the same phase.

Walls near the pits in the south of the trench also belong to this phase. A wall east of the three contiguous pits was

founded on bedrock and hastily built of limestone rubble bonded with earth (18074) (Plate 111C). Beyond a narrow gap, perhaps a doorway, the wall continued to the south (18151), where it was joined to a small fragment of a wall on its west side (18149). All three walls were in the same style of construction, and they may have served as an enclosure wall for the pits, which may have continued in use at this time (pit 18116 contained ceramics dating up to the first century A.D.).

WALL 18017 AND THE ALLEY: During this phase a wall was built across from the House of the Plastered Floor (18017), thereby creating an alley between the two structures. It was only exposed in the north limit of excavation for the trench, and only the south face was visible (Plate 115). The wall was made in pier-and-panel construction, with panels of rubble and mortar and piers of limestone blocks, all resting on foundations of rough limestone construction. Fill containing pottery of the first century A.D. (context 18105) abutted this foundation wall and suggests a terminus ante quem for the construction of wall 18017 (Plates 110B–C).<sup>256</sup>

#### MIDDLE IMPERIAL PHASE

There is no evidence for building activity in the House of the Painted Plaster or in the Mud-brick House during this phase, but modifications were made to the alley. A make-up layer (context 18085) in the alley abutted both walls to north and south (Plate 110C). It contained pottery of mid-third-century date, as well as a faience bead (G104) and a copper alloy fishhook (BR160).<sup>257</sup> A drain of terracotta pipes (18086), cut into this layer and ran west for several meters before turning southwest. At the same time, a pier in wall 18017 was cut to receive a terracotta downspout (18188), presumably to connect plumbing on the roof or on a second story down into the alley (Plate 115C–D).<sup>258</sup> The bottom of the drain had a pipe joint with a 90-degree angle in order to connect to the drain in the alley.

A mud-brick or clay surface (context 18078) abutted both walls of the alley and covered the make-up layer and the drain (Plates 110C–115C). This surface stood 10 cm below the threshold in the alley's south wall, and probably functioned in conjunction with the House of the Plastered Floor. At some point the alley was resurfaced with two rubble layers (contexts 18077 and 18076), the latter containing pottery of the mid-third century.<sup>259</sup> Another surface made of limestone fragments in a silty matrix (context 18082) rested flush with the threshold between the alley and the House of the Plastered Floor. The surface also abutted the north wall of the alley but at some point was disturbed by what appeared to be a construction trench, perhaps for repairs to the north wall (18104). Pottery was not recovered from the fill of the construction trench. The alley was sealed by destruction debris of the mid-third century A.D. (context 18054).<sup>260</sup>

## DESTRUCTION

**THE MUD-BRICK HOUSE:** Although constructed during the Seleucid period, this house did not meet its demise until the Sasanian attack of the mid-third century, when both rooms were buried in deep deposits of burnt destruction debris. A destruction deposit on the floor of Room 18B (18070) contained three coins, all dating to the first half of the third century A.D. (C36, C45, C146). This layer was unusually rich in finds, including items of a military nature: four iron knives (IR154, IR159, IR170, IR173), and an iron sword (IR34), as well as possible iron armor strips (IR8, IR9). Luxury items from this layer included copper alloy furniture fittings (BR145, BR147), a copper alloy strainer spoon (BR159), one bone hairpin (B3) and another with a gold-plated head (B1), a glass finger ring (G118), a glass stopper (G51), and a gold fitting.<sup>261</sup> The layer also contained fragments of two bone figurines (B32, B34), as well as a copper alloy statuette of Venus Anadyomene (BR154). A soil sample from this context proved to be rich in organic material, yielding the carbonized remains of 11 whole almonds, 80 whole grapes and many pips, and 15 pistachio nuts.<sup>262</sup>

A similar destruction layer covered Room 18A (context 18108) (Plate 108A). The pottery here was typical of other mid-third-century destruction levels found at Zeugma, and the single coin found in this context came from the reign of Gordian III (C58).<sup>263</sup> More objects relating to the military came from this context: a shield boss (IR5), two fragments of armor (IR10, IR11), two *pila* (IR26, IR27), and a *gladius* (IR35), as well as domestic objects, including part of a copper alloy plate (BR13), an iron vessel (IR124), several iron saw fragments (IR47, IR48), a complete cooking pot (PT429) (Plate 112C), and two stone spindle whorls (SW52, SW53). Two figurines, one of bone (B33) and the other of terracotta (TC1), were also collected.

**THE HOUSE OF THE PLASTERED FLOOR:** This house was destroyed at the same time. The south rooms were covered with a particularly deep destruction deposit. A debris-filled layer (context 18083) containing roof tiles, architectural blocks, limestone and mud-brick rubble, charcoal, and a coin of Trebonianus Gallus (CI94) buried the floor of Room 18G. The pottery in this context appeared to be mid-Roman. Likewise, Rooms 18H and 18I were covered in several layers of similar destruction debris that contained charcoal, roof tiles, and pottery of mid-Roman date.<sup>264</sup> The same type of destruction debris (context 18008) buried Rooms 18C and 18D. In Room 18F, the excavators found a thin and compact lens (context 18061) lying directly on floor 18062, which contained Hellenistic fine ware mixed with much mid-Roman material. More of the same lens on the east side of the room (context 18015) had a coin of Trajan Decius (CI06).

## CONCLUSIONS

Trench 18 provides good evidence for occupation of this part of the city in Seleucid times, first in the construction of bedrock pits, and later in the creation of the Mud-brick House. At some point an ashlar structure was built in the north part of the trench. In the first century A.D., certain walls of this structure were incorporated into the House of the Plastered Floor, which may have annexed the Mud-brick House. Although poorly preserved and not fully excavated, this house appears to have been a courtyard house of a type seen elsewhere at Zeugma, especially in Trenches 2 and 11. The wall across the alley to the north may represent a separate but contemporary property. It is interesting to note that the alley north of the House of the Plastered Floor differed from others at Zeugma in that its walls were not parallel. This may be a sign that the House of the Plastered Floor conformed to the grid system of the Seleucid times and the house to the north to an early Imperial grid system.

The only evidence for building in the Middle Imperial phase in this trench comes from the alley, where a water system was installed and two pavings were added shortly before the destruction of the adjacent houses in A.D. 252/253. The destruction deposits overlying the Mud-brick House show that the house was occupied at the time of the Sasanian attack. Judging from the militaristic nature of some of the finds, the occupants of the house may have had connections to the Roman army. Meanwhile, the presence of hairpins, jewelry, and other luxury items reflect a female presence. In contrast to the numerous objects recovered in the destruction debris of the Mud-brick House, few objects were recovered from the House of the Plastered Floor. This could indicate that the house had been abandoned before the mid-third-century attack on the city, but mechanized excavation of this area reported by the excavators must also be taken into account.

## Trench 13

In this trench the excavators found parts of at least two houses arranged on terraces oriented north to south (Plates 116–128). Rooms on the lower terrace are assigned to a single house, the House of the Tunnel, named for a rock-cut passageway that joined several of its rooms (Plates 124C–E, 125A). The use of fired brick in some of the walls suggests a construction date in the Early Imperial phase. During the Middle Imperial phase, many of the rooms in the House of the Tunnel received mosaic floors and painted walls. The house was destroyed in the third century A.D. and was never reoccupied. Documentation of the area in 2001 enhanced the overall picture of the house, since several architectural features were exposed by wave action after the site was flooded after the rescue excavations of 2000. In October 2002, a temporary drop in the water level of the Birecik reservoir exposed parts of four additional rooms with mosaic pavements that belonged to

the House of the Tunnel. Rooms 13G, 13H, 13I and 13J were exposed at this time, and the mosaic pavement in Room 13H was lifted by CCA. Time did not permit detailed archaeological investigation, and so these rooms are not described in detail and are only sketched on the plans for Trench 13.

*The House of the Tunnel on the Lower Terrace*

The House of the Tunnel consisted of at least seven interconnected rooms. Two of these rooms were fairly well preserved, but five rooms on the eastern side of the terrace were badly eroded (Plates 117, 120–126).

EARLY IMPERIAL PHASE

**ROOM 13A:** Room 13A measured 4.2 × 3.4 m. The entire lower part of the room was hewn from bedrock, with the west and south walls entirely carved into the side of the bedrock terrace. The north and east walls had raised rock-cut foundations, with superstructures in pier-and-panel construction that had panels of fired brick and mortar, with an occasional leveling course in small limestone blocks.<sup>265</sup> The north wall (13052) had two windows, each about 1 m wide, on either side of a central pier (Plates 122B–C). Small limestone blocks set in mortar formed sills approximately 2 m above floor level. The actual height of the windows is not known. They did not open to the outside, but rather into Room 13C to the north.

Two round pits were cut into the bedrock floor of the room in the northeast corner.<sup>266</sup> Rising water in the Birecik reservoir prevented excavation of the pits, but they may have predated the construction of the house, because they were covered by a layer of brick and mortar (context 13063). Trench 18, close by to the south, had several rock-cut pits of the same size dated to Hellenistic times, so it is possible that the pits in Trench 13 belong to the same period.

A wooden ceiling covered Room 13A, as shown by a row of eight square sockets for wooden joists that were cut into the top of the room's west wall.<sup>267</sup> A single socket with the same dimensions was located on the south wall, about 15 cm from the corner and slightly lower than the cuttings on the west wall (Plate 122D); this would have held a beam running crossways under the joists.<sup>268</sup>

**ROOM 13B:** Room 13B had a southern wall made of limestone blocks. The room's other walls were carved from bedrock. The north wall had cuttings similar to the joist sockets in Room 13A. This room was not fully excavated and its relationship to the House of the Tunnel is uncertain.

**ROOM 13C:** The north and most of the east walls of this room do not survive, but its south and west walls are well-preserved and made of pier-and-panel construction with brick panels, just like walls in Room 13A (Plates 120, 122A). Room 13C communicated with Room 13A via windows on its south wall, but the floor level was about 1.20 m higher than that in Room 13A. Rising water in the Birecik reser-

voir washed away archaeological deposits in the room before they could be excavated.

*Rooms of the Upper Terrace*

Three rooms stood on the terrace above and to the west of the House of the Tunnel. Room 13D was completely carved from bedrock, including parts of the ceiling, which had partially collapsed into the room. The nearly square room (3.25 × 3.47 m) had no visible entrances and was probably entered via a hole in the ceiling. The walls had traces of plaster. Room 13E was a small rock-cut room only partially exposed but apparently isolated from adjacent spaces in the manner of Room 13D. Only a small section of its east wall survives, without a trace of decoration.

Although only partially excavated, the most interesting of the rooms of the upper terrace was Room 13F (Plate 127). Above a bedrock floor a layer of concrete and pebbles may have been a make-up layer for a mosaic that was never installed or had been robbed away. The excavation exposed only the north and east walls of the room, both built of irregularly shaped limestone blocks bonded with gray mortar.

MIDDLE IMPERIAL PHASE

In this phase mosaics and wall paintings were added to many rooms of the House of the Tunnel. Room 13C received the fine geometric mosaic M26 (Plate 120). Painted plaster depicting architectural features—panels between columns painted in imitation masonry—decorated the walls of Room 13A (Plates 119, 123).<sup>269</sup> The walls of Room 13F on the upper terrace received similar decoration in this phase, but these walls were enhanced by the addition of human figures (Plates 127B, 128).<sup>270</sup>

In addition, three geometric pavements in rooms to the east (Rooms 13G, 13H and 13I) were probably added to the house in this phase. These rooms were not exposed at the time of excavation in 2000, but rather came to light in 2002 when the water level in the reservoir was temporarily lowered. A doorway in the east wall of Room 13A led to a room with a geometric mosaic pavement (Room 13G). The walls were built of ashlar construction, but the entire east side of the room had collapsed into the reservoir (Plates 117, 125). Room 13A also connected to another room by means of a rock-cut tunnel with a dogleg turn (Plates 124C–125A). The tunnel, for which the house was named, measured approximately 3 m long and 2 m high. A niche, carved in the bedrock at the point where the tunnel changed direction, may have held a lamp or lantern to illuminate this dark passage. The room to which it connected, Room 13H, had a geometric mosaic pavement that was lifted by CCA and is now in the Gaziantep Museum (Plate 126).<sup>271</sup> The north side of the room had a wall composed of ashlar and a low curb at its base, similar to the configuration of mosaic and curb in the courtyard of the House of the Bull in Trench 2. To the east, another room (Room 13I) had a geometric pavement, but only the very west side of this was visible

at the water's edge (Plates 117, 125B). To the south, Room 13J may have been a kitchen, since it was equipped with a food storage area and drainage system (Plate 125C).<sup>272</sup> On the east side of the room, a small mosaic of plain white tesserae was enclosed by a curb.

#### DESTRUCTION

In Room 13A of the House of the Tunnel, the excavators encountered a thin, silty deposit lying directly on bedrock floor but devoid of datable finds. This possible occupation deposit was sealed by a destruction deposit of collapsed mud-brick (contexts 13040 and 13064) across the entire room. Pottery was scarce, but the deposit did contain a fragment of an iron window frame (IR285), probably from one of the windows in the room's north wall.<sup>273</sup> Above this was a loose layer of burning and collapse (context 13036) in which the excavators found two fragments of bone figurines (B31 and B35), a clay sealing (ZB8), and a Tuscan-style capital (A68). There was much pottery from this context, similar to that from Sasanian destruction levels in Trenches 2, 9, and 11, as well as several iron objects.<sup>274</sup> Above this, the excavators found lenses of burning (contexts 13034 and 13033). Samples from these contexts were rich in barley, wheat, and lentils, and they could represent the charred remains of food stores.<sup>275</sup> Room 13A may have functioned as a granary in its final days.

Fire destroyed Room 13F. A layer of destruction debris (context 13065) containing roof tiles and burnt timber filled the room (Plate 127C). Collapsed mud-brick (context 13007) sealed the destruction level. The pottery from these layers was similar to that from Sasanian destruction levels found elsewhere at Zeugma. Finds from the mud-brick layer included a basalt hand quern (Q9), a stone spindle whorl (SW44), and an iron window bar (IR284).

#### CONCLUSIONS

The construction of the House of the Tunnel probably occurred no earlier than the beginning of the second century A.D. This date is suggested by the presence of pier-and-panel type walls with brick infill panels in Room 13A. This type of walling is also present in Trench 11, where it belongs no later than the early second century A.D.<sup>276</sup> Although the house was not completely excavated, the complexity of the surviving plan and the high-quality decoration in most of the rooms shows that the inhabitants were on a par with neighbors in decorated houses in Trench 2. Like the houses in Trench 2, the House of the Tunnel may have undergone alterations in the years leading up to the Sasanian attack, for Room 13A appears to have been converted to a store-room for grain.

#### Trench 1

Trench 1 is located near the western edge of the city, on a west-facing slope of a limestone headland, overlooking the small tributary of the Euphrates called the Bahçe

Dere. University of Nantes excavations nearby in 1998, in Chantier 10, uncovered an industrial quarter dated from Late Imperial times (sixth to seventh century A.D.) to the Early Islamic period (ninth to tenth century A.D.).<sup>277</sup> In Trench 1 there were two major phases of activity: a building of Late Imperial date with evidence for minor renovation, and another structure of Early Islamic date (Plates 129–131). Evidence points to collapse and rebuilding during the Late Imperial phase and resettlement in Early Islamic times.<sup>278</sup>

#### LATE IMPERIAL PHASE

A poorly preserved structure located in the northern section of the trench can be associated with this phase. Its sketchy plan consists of three parallel rooms, each with a doorway leading to the south. In the easternmost room, wall 1019 was fairly well built, with evenly cut limestone blocks, some reused from previous contexts (Plates 131C–D). Other walls for this room had rather hasty construction. The excavators did not isolate a surface in the east room, but in the central room they found a surface (context 1031) covered by a collapse deposit (context 1047). Pottery was not recovered from context 1031, but the ceramics in context 1047 were of mixed date, including Eastern Sigillata A, Phocaeen Red Slip Ware, and Islamic material.

On the northeast side of the three-room structure, walls 1029 and 1020 formed a transverse corridor. The latter wall rested partially on bedrock and partially on a leveling deposit (context 1025), and it contained reused masonry. A surface between walls 1020 and 1029 contained one fragment of Roman brittle ware, datable to any time from the second century A.D. onward (context 1028). An undated surface was uncovered north of wall 1020 (context 1021).

North of the west room of the three-room structure, two floors were found on the southwest side of the corner formed by walls 1039 and 1043 — a lower one (context 1052) covered by an upper one (context 1051). A collapse layer (context 1053) fallen from wall 1039 was found over the upper surface. Inside the west room of the three-room structure, floor 1050 extended to the north over the top of the collapse layer and continued to wall 1043. The three-room structure therefore appears to have suffered at least one destruction event and rebuilding. Unfortunately, no surface or make-up layer contained material to secure a date of construction. The evidence of wall construction and material in overlying deposits suggests a date in the Late Imperial period.

#### EARLY ISLAMIC PHASE

A separate structure in the southeast part of the trench had at least five rooms. Its walls were rough, consisting of limestone rubble with the occasional reused block in an earthen matrix. All wall corners were bonded, showing that this was a single-phase construction. A surface of Islamic date (context 1036) was found to the east of wall 1012 in the southeastern room.<sup>279</sup> To the west of wall 1012, in a room

limited on the south by wall 1003, the excavators identified patches of an undatable surface (context 1036).

To the north, wall 1007/1040 had a doorway framed by upright ashlar piers (Plate 131A). The southern pier had been reused, and the excavators noted two carved rosettes on its east side. An earthen floor (context 1034) containing ceramics of Islamic date abutted the southwest side of walls 1040 and 1027.<sup>280</sup> Another floor (also identified by the excavators as context 1034) appeared to the north of wall 1027, where it abutted wall 1020, covering both wall 1055 and surface 1028 in the corridor of the Late Imperial building. Whereas some parts of the Late Imperial building were put out of use by the early Islamic building, wall 1020 was apparently still in use during the early Islamic phase.

#### COLLAPSE AND ABANDONMENT

Several layers of collapse lay across Trench 1. The most pervasive (context 1024) covered the walls and surfaces on the eastern side of the trench; the excavators found a similar layer to the west (context 1056).<sup>281</sup> These layers contained several well-cut ashlar, probably fallen from the slopes above the trench, as well as ceramics of mixed date, with the latest datable material from the Islamic period.<sup>282</sup> From on top of these layers and in some places from directly on surfaces 1036 and 1034, the excavators removed tumble layer 1010, with latest datable material also from Islamic times. This layer accounts for most of the material in Kenrick's Group G.<sup>283</sup> In addition to pottery, many finds belong to this context: a stone spindle whorl (SW1), three fragments of worked bone (two stylus fragments or broken pins and a possible bone handle: B37-39), a stone bead (SF 1042), two glass beads (SF 1012, SF 1063), an unidentifiable glass fragment (SF 1009), and fragments of painted plaster (SF 1044). Many bronze objects were also recovered, including a possible set of jewelry comprised of a ring (BR128), earrings (BR38-40), and bracelet (BR35), as well as four coins: C63 (Gordian III), C199 (A.D. 324-330), C281 (illegible), and C234 (Abassid). C234 was pierced for suspension and thus could have served as a pendant to complement the copper jewelry set.<sup>284</sup>

#### CONCLUSIONS

Too little survives to indicate the function of the buildings found in Trench 1. However, the two phases of construction, belonging to the Late Imperial and Early Islamic periods, match the phases of occupation found in Chantier 10 to the west.

## SUMMARY AND CONCLUSION

The results of the rescue excavations of 2000 offer vivid evidence for occupation and destruction at Zeugma. Trenches 1 and 10 show no signs of Hellenistic occupation, and this suggests that these were peripheral to the core of the early city. Some Hellenistic-period structures were rather insubstantial, such as the two-room structure in Trench 7A and the Mud-brick House in Trench 18. But most Hellenistic buildings were constructed of ashlar blocks laid on bedrock foundations. Ashlar blocks from these walls also survive as fragments built into later houses. The House of the Fountain in Trench 11 is perhaps the best example of a Hellenistic or Commagenian house to come to light in the PHI rescue excavations. This had a central court with a colonnade to one side, as well as an advanced water and drainage system. The same may have been true of the Hellenistic house under the House of the Helmets in Trench 2. All of these buildings share an orientation that is more or less identical, with the direction of rooms and streets guided by the slope down to the river. Building in later periods seems to have conformed to this system.

In the first part of the Early Imperial phase, especially the Flavian through Trajanic periods, settlement at Zeugma burgeoned. New building incorporated Hellenistic predecessors and expanded the size of houses. Outlying trenches like Trenches 1 and 10 show little indication of building at this time, and so the core of the city appears to have remained the same. The flurry of building activity was probably engendered by the arrival of *legio IIII Scythica*.<sup>285</sup> The predominant construction technique in this phase was pier-and-panel masonry. Piers were built of ashlar blocks robbed from Hellenistic structures. Panels, while chiefly limestone rubble bonded with earth, occasionally used fired brick. In general, house plans followed on the heels of Hellenistic predecessors and retained a central court surrounded by rooms, one or more of which was separated from the court by a colonnade. Like houses elsewhere in the Roman Near East, accommodations for water storage were essential, and cisterns were often located in or near courtyards.

Between the late second and mid-third century, many houses received lavish decoration, including mosaic floors and wall paintings. A few houses, such as the House of the Fountain and the House of the Bull, also acquired luxurious amenities like latrines and fountains. These enhancements may reflect a new optimism among of the inhabitants of Zeugma, perhaps engendered by conquests of the Severan dynasty in the East. They may also indicate a desire by the householders to create domestic environments in keeping with fine homes of cosmopolitan centers of culture like Antioch.

The florescence did not last long. Following the citywide phase of renovation, the good fortune of Zeugma ebbed as the Sasanian threat increased. Houses were subdivided, doors blocked, and spaces between columns closed off.

Latrines in Trenches 10 and 11 went out of use, as did the fountain in Trench 11, and this hints at the possibility of a disruption in Zeugma's water supply. Painted plaster walls were defaced by graffiti, and some of the most decorated rooms were given over to food storage and food processing. All of this seems consistent with a city under threat of an attack.

The Sasanian sack clearly engulfed parts of the city in flames and reduced them to ash and rubble. The rich destruction debris speaks eloquently of the last days of Zeugma and of its final inhabitants. Military equipment was recovered from the House of the Helmets, the House of the Bull, and from the House of the Fountain and the House of the Plastered Floor—a trend also noted in excavations by the Gaziantep Museum and the University of Nantes. This, along with the subdivision of houses, suggests that the resident population of Zeugma had been bolstered by soldiers, who billeted in the once-fine villas on the west bank of the Euphrates.

Following the sack, Zeugma stirred to life again, but the revival was not immediate. Only slight evidence for habitation in the fourth century was detected in Trenches 9 and 10. By the fifth century A.D., houses reappear, some of rather high quality (Trenches 1, 5 and 7). But Zeugma never regained the population or importance enjoyed before the Sasanian destruction. The city was sacked again in the mid-seventh century. The Late Imperial Peristyle House in Trench 7B and the Northeastern House in Trench 5 were destroyed, probably by Arab incursions. Building in Trench 1 provides some evidence for the Islamic occupation of Zeugma, but in general the city was not an important part of the Ummayyad world.

## NOTES

1. This study of the domestic architecture would not have been possible without the efforts of Prof. William Aylward, who, in addition to discussing issues of stratigraphy and architecture with me, also worked tirelessly to provide me with the data necessary to complete this project. I am grateful to Katherine Dunbabin for discussion about the houses and the mosaics. I thank Philip Kenrick for reading and commenting on a preliminary draft of this chapter, and for providing identifications and dates for pottery mentioned in the notes to this chapter. Andy Mayes was a great help to me for sorting out issues of stratigraphy. Conservation of many of the features presented here was carried out in 2000 by the Centro di Conservazione Archeologica-Roma (CCA).
2. Another public building discovered in Trench 15 is discussed by William Aylward in this volume.
3. For previous excavations at Zeugma by the University of Western Australia and the Gaziantep Museum, see Kennedy 1998. For work by the University of Nantes, see annual reports by Abadie-Reynal et al. in *Anatolia Antiqua*. During the rescue excavations of 2000, the Gaziantep Museum managed excavation in Trenches 3 and 8 (summarized in Early 2003, 15–7, 51–5), the University of Nantes undertook work in Trenches 6, 14, 16–7, and in the northern part of Trench 7, and the Zeugma Initiative Group (ZIG), led by the late Ümit Serdaroglu, led work in unnumbered trenches in the vicinity of Trench 10. Publication of activity and finds during the rescue campaign of 2000 falls to their respective excavators.
4. For the logistics, participants, and timeline of the 2000 rescue excavations, see the first chapter by Aylward in this volume. All photographs in the plates for this chapter were produced by the excavators. All drawings were prepared by the excavators and corrected and revised for publication by William Aylward.
5. The alphabetic prefix refers to material class (PT = pottery, AM = amphora, C = coin, BR = bronze, G = glass, etc.). Numbers with the prefix “SF” refer to objects designated small finds by the excavators, and not deemed worthy of publication in catalogues prepared by the authors of the chapters in this volume. Existence of these finds is documented in an unpublished interim report of the rescue excavations for the Packard Humanities Institute (Oxford Archaeology, April 2001), hereafter referred to as Unpublished Interim Report, and in an unpublished computerized database of finds created by the excavators. Observations on the site following the impoundment of the Birecik reservoir were recorded in a separate report, here referred to as Unpublished Shoreline Survey (Oxford Archaeology, January 2002), which is presented in a chapter by Aylward in this volume. Finds from all activities were deposited in the Gaziantep Museum.
6. Unpublished Interim Report, pages 158–201, 204. Thousands of fragments of broken and/or unidentifiable objects were uninventoryed but retained as bulk finds, classified by material.
7. University of Nantes excavations in Chantier 9 revealed two walls of limestone headers at the corner of a large public building on a terrace dated to the first century B.C. (Abadie-Reynal et al. 1999, 317–9). In Chantier 12 they found walls in this construction technique, especially wall M6, on foundations dated to the first century B.C. (Abadie-Reynal et al. 2001, 244–5).
8. In general, fired brick begins in the East in the late first or early second century A.D., with an early example near Antioch at Daphne in repairs to the aqueduct dated to Trajan or Hadrian; cf. Deichmann 1979, 479.
9. Hoepfner and Schwander 1994, 293–7.
10. For general discussions of Roman houses in the East, see Balty 1989; 1984, 482–90; Hales 2003, 207–247. For Antioch, see Stillwell (1961), Lassus (1984), and Dobbins (2000). In Hanghaus 2 at Ephesos, the arrangement of rooms around peristyle court SR 22 bears some resemblance to the House of the Helmets: see Vettors 1972–5, 331–79.
11. For a discussion of this type of house see Ellis 1997; 1988.
12. The bath (unpublished) was excavated by the Zeugma Initiative Group (ZIG) in 2000, under the direction of the late Professor Ümit Serdaroglu. Cf. Early 2003, 55–6.
13. Surface contexts 10060 and 10011, respectively. The excavators suggested that a street ran northwest to southeast in front of the bath building.
14. The Unpublished Shoreline Survey mentions a series of thin surfaces in this region exposed through erosion. These may represent a sequence of resurfacings for a street.
15. Jansen (1997, 126) estimates that the typical latrine allotted approximately 50 cm per person.
16. Latrine walls belonging to the Middle Imperial phase are numbers 10068 (southwest), 10042 (northeast) and 10017 (southeast). The steps are context 10022.
17. The tile floor is context 10023, made up of half-tiles (27×18 cm) and complete tiles (56×38 cm). Some tiles had an incised X pattern etched from corner to corner, while others had curved marks created by fingers drawn over the wet clay. The stone ledge is context 10024.
18. The tiles measured 40×40 cm and were incised with an X pattern.



19. Tiles measured 34 × 33 × 5 cm.
20. The remnant of walling labeled 10076 was probably also added at this time; the waterproof cement on its northern face suggests a hydraulic function related to the latrine (Plate 4).
21. A robber trench over 15 m long ran alongside wall 10010 (context 10007), with fill (context 10006) containing a coin of Gordian and Abgar (C73). The excavators had reason to believe that the robbing belonged to modern mosaic hunters (Plate 4).
22. The stone basin is WS 85; the drain at the east corner is context 10040; the robbing trench east of wall 10017 is context 10091.
23. Silty fill is context 10015/10041. The tiles measured 28–52 × 54 × 4 cm.
24. For a general discussion of public latrines and hygiene see Scobie (1986, 404–30), Hodge (1992, 270–2), Jansen (2000), Koloski-Ostrow (2000), and Merletto (2000). The most complete treatment of “luxury” latrines can be found in Neudecker (1994) who discusses latrines in Rome, Ostia, Corinth, Ephesos, Timgad, and Cuicul.
25. Merletto 2000, 301.
26. Although it is well known that Romans had no qualms about sharing toilet facilities, it is nevertheless clear that not being observed from the outside was an important aspect of latrine design. See Scobie (1986, 429–30) and Jansen (1997, 123).
27. Citing examples in North Africa, Wilson (2000, 309) argues that the runnel was not constructed to accommodate spillage, since the runnel in a latrine at Thugga has a raised border to keep spillage from entering the channel. He suggests that the runnel was used expressly for the washing of sponge sticks.
28. Basins are unusual in Pompeii, but seem to be a common feature in North African *foricae*. Our basin had two small holes on its two exposed walls, which were probably plugged but could have been opened to allow water to spill out in order to clean the floor.
29. A latrine at Pompeii located near the large theater held only six patrons (Koloski-Ostrow 2000, 290–1).
30. Early 2003, 55.
31. Early 2003, 43. Unpublished Shoreline Survey, 16, fig. 2.2. The latrine is context 27053.
32. According to the excavator, context 2128 was a deposit both under M1 and on the west (exposed) side of M1. The context is dated after A.D. 10 by two rims of Eastern Sigillata A (PT125, PT140).
33. The channel was 24 cm wide and 42 cm deep. The fill inside the drain (context 2002) contained numerous coins (C4, C51, C53, C79, C81, C156, C159, C176, C178, C180, C181, C216, C221, C256, C269, C283–286), many of which were illegible. The dated pieces ranged from the early third century A.D. to the mid-sixth century A.D. Other finds include a copper alloy ring (BR134), a stone spindle whorl (SW9), and a lamp (L76). The deposit does not represent the fill of the drain, however, but subsequent colluvium that had accumulated in the drain over time.
34. Fresco 2206, 2207, 2208.
35. Floor: context 2186. Leveling layers: contexts 2528 and 2529.
36. Kenrick’s Group C.
37. Context 2494, found between bedrock and floor level.
38. The wall painting is described in the chapter by Bergmann.
39. Foundations for wall 2020 were cut into a rubble layer (context 2036) with a single sherd of Eastern Sigillata A and a coin of Gordian III (C84). Wall 2022, built in the pier-and-panel technique, was cut into the same layer. Foundations for neither wall were investigated in full, and the late material in context 2036 can be explained by later building in this area, including the installation of new mosaics as late as the first half of the third century.
40. The doorways (contexts 2318 and 2322) were identified by the excavator, but they are not mentioned by Early (2003, 36), who suggests that Room 2F was only accessible from the southeast.
41. Contexts 2316 and 2325.
42. Early (2003, 40) called this doorway a later addition to the wall, but the excavators considered it original. It was blocked during a later refurbishment.
43. The wall painting is described in the chapter by Bergmann.
44. Tanks, basins, and troughs for decanting rainwater were standard in peristyle courts; cf. Adam 1994, 236, fig. 548.
45. Cf. Early 2003, 35.
46. The wall’s foundations (context 2537) were cut into rubble layer 2036, the same layer into which the foundations for ashlar wall 2020 had been cut.
47. Separate floors were identified on the northeast side of wall 2022 (floor 2104) and to the east of wall 2339 (floor 2106), but neither floor nor packing layer beneath contained datable finds. Charcoal in context 2512 contained both pine and tamarisk: see the chapter by Gale in volume 3.
48. The pottery is included in Kenrick’s Group C. Other finds included part of a jar (SF 2298), a small copper alloy bell (BR104), and several iron objects (IR83, IR109, IR149, IR454, IR582).
49. It is possible that there were terracotta pipes in the conduit, although they are not mentioned in the excavation notebooks. Plate 32c shows pipe fragments near the conduit.
50. The east part of the drain was cut into floor 2464, which covered make-up layers 2463 and 2490. Also at the east, floor 2152 covered over part of the eastern end of the drain. The fill in the conduit (context 2491) included a sherd of African Red Slip Ware of the mid-third century or later, as well as fragments of bone, glass, charcoal and tesserae. The excavators considered the fill contaminated in the absence of a sealed deposit. The debris within is consistent with destruction deposits in the adjacent houses.
51. See the chapter by Dunbabin, this volume, catalogue numbers M4–6.
52. The excavators attribute the identification of the stone to Dr. J. Delaine.
53. Kenrick’s Group D. Part of a “Dura-Europos” lamp (L79) attributable to the same period was also found in this context.
54. The excavators assigned holes cut into ashlar on the walls of Room 2F (walls 2076 and 2078) to this period (Plate 22f). Likewise, Early (2003, 40) considered them fixtures for tethering animals in a room that had been transformed into a stable. However, similar holes are found on ashlar elsewhere at Zeugma, and they probably functioned as lifting and setting devices for builders of the walls. In support of the manger idea, Early erroneously cites a trough in the northeast corner of Room 2G, but the trough in question belongs to the peristyle court.
55. Contexts 2080, 2012, 2045, 2046, 2039, 2242, 2238, 2197. Finds from Room 2E (context 2080): a marble foot from an under life-size statue (SS4), a glass bead (SF 2170), a glass ring bezel (G116), and parts of two glass vessels (G22, G26), a lamp (L66), an unfinished column drum (A22), and several iron objects (IR168, IR272, IR273, IR379, IR425, IR542, IR549, 43 nails). Finds from Room 2F: (context 2045) a large fragment of a cypress roof beam and, associated with it, a burnt lens with traces of pine (see the chapter by Gale in volume 3 for the identifications); (context 2046) an object of worked stone (SF 2171), a drain fragment (SF 2151), three lamp fragments (L122, L123, SF 2188), a complete pot stand (SF 2149), a base molding (A29), and iron objects (IR54, IR61, IR148, IR357, 64 nails). Finds from Room 2G: (context 2242) iron objects (IR127, IR222, IR333, IR383, IR579, 12 nails) and copper alloy objects, including parts of a jug, and oil lamp and suspension loop (BR4–6, BR21, BR164); (context 2238) iron objects (IR56, IR438, 12 nails), and two pieces of a copper alloy handle (BR5–6).

56. Coins from Room 2E: (context 2080) C29, C52, C133, C236. Coins from Room 2F: (on floor 2130) C21, C33, C50; (context 2046) C24; (context 2039) C16, C28, C30, C38, C40, C48. This last group of coins may be a dispersed hoard: see the chapter by Butcher in volume 3. The pottery is not as easily datable as the coins, owing to an almost total absence of contemporary fine wares. General characteristics of the pottery (including contexts 2012, 2039, and 2080) are presented in Kenrick's Group D.
57. Textile fragments are described in the chapter by Cole in volume 3: TX7, TX20 (bast fiber), TX24–25 (cordage), TX26–27 (shoe soles).
58. Pithos: PT452 (Kenrick's Group D). Amphora: AM148 (regional type).
59. Sample 2063 in the chapter by Challinor and de Moulins in volume 3.
60. Context 2007. The textiles (TX4–6) are classified as bast fibers in the chapter by Cole in volume 3. An iron knife was also found in this context (IR168).
61. The excavators record a bag-shaped jar (SF 2093, context 2027), similar to Reynolds Form 3D but with only one handle, a complete jug resting against wall 2020 (context 2028), and two fine-ware vessels (one containing seeds). None of these was available for study in 2002, and they are therefore not catalogued in this volume. The quern is not mentioned in the excavation notebook, but it appears on excavator sketch 2012.
62. The vessels were allotted their own context numbers: body sherds of a pithos (context 2109) and a complete amphora of Reynolds Form 13D (context 2086, AM202). The excavators mention a spearhead next to the amphora.
63. Context 2075 overlay the mosaic in the eastern corridor and contained a spearhead (IR16), an awl (IR55), and a knife (IR134). A punch (IR37), a candlestick fragment (IR89), a rotary hand quern (Q23), and a stone spindle whorl (SW18) belong to context 2129 in the western corridor. On the mosaic in the southeast corner of the peristyle court, context 2251 contained a copper alloy pendant (BR28), an iron leather punch (IR59), and parts of iron window grilles (IR263). In the upper layer of collapse across the entire room (context 2035), the excavators found another textile fragment (TX8–11, bast fibers), part of a column base (A16), and several coins dated between A.D. 222 and 249 (C20, C23, C32, C69).
64. PT311–320 in Kenrick's Group D. The excavators record the traces of "food" on the vessels. A layer of burnt collapse (context 2141) containing numerous iron objects was also on the floor near the doorway: a vessel foot (IR133), a knife (IR157), and two padlocks (IR320, IR337).
65. Early (2003, 40) mentions a blocked doorway in wall 2398 (incorrectly marked on fig. 23), but the material in question is similar to the rough construction technique used throughout the wall. Blockage is present at the far north end of the wall, adjacent to pier 2396.
66. Early (2003, 38) suggests that the entire southeastern wall might have been occupied by a wide, arched doorway. This is based on a block on the southwestern wall of the room (wall 2396) with a curve on its northern face, suggesting the spring of an arch. This reconstruction has some appeal, since the proposed arch in the east wall would have mirrored the arch in the west wall that led into the vaulted room. If an arch in the east wall existed, then it was later partially blocked, and a new doorway was built.
67. On the notion that a lower floor level indicates a deliberate re-fashioning of the interior, Early (2003, 40) argues that Rooms 2K and 2L were later additions to the house, but there is no evidence to suggest that these rooms were not contemporaries of their neighbors, and thus part of the house's original plan.
68. Context 2092, inside robbing trench 2112 for the northeast wall, contained indeterminate coarse ware, large fragments of mosaic, pieces of painted plaster (SF 2356), some iron objects (IR66, IR427, IR427, 4 nails), and a basalt mortar (SM9). In context 2353, inside robbing trench 2354 for the southeast wall, the excavators found only two sherds of (possibly Hellenistic) fine ware.
69. Both doorways are original to the first construction phase; contra Early 2003, 42.
70. After investigation, the cistern was partially filled with debris from the excavations of Trench 2.
71. Plans of Trench 2 in the Unpublished Interim Report (fig. 6.2) and in Early 2003 (fig. 23) transposed the numbers for Rooms 2O and 2P given in the excavation notebooks, where one can find the correct identifiers.
72. The sections of pipe were joined with white mortar. Each section of pipe measured about 32 cm long and 20 cm in diameter.
73. The block measured 31 × 30 × 50 cm.
74. The junction block measured 42 cm square. Pipe 2363 connected to the south side. Pipe 2364 connected to the east side and ran northward, perhaps intersecting another pipe in this area (2506).
75. Early (2003, 39) estimated a minimum length of 7.88 m for the room and postulated that it may have been the house's principal reception room: an appealing suggestion with little evidence to confirm it.
76. Fresco 2280, 2392, 2426, and 2492.
77. The earlier layer is fresco 2264; the later layer is fresco 2405.
78. The earlier layer is fresco 2416, 2489, and 2487; the later layer is fresco 2486 and 2488.
79. Fresco 2418.
80. Bricks: 23 × 23 × 4 cm.
81. Most latrines at Pompeii were flushed in such a manner: cf. Jansen 1997, 131.
82. Fresco 2288, 2502, and 2498.
83. Koloski-Ostrow 1994, 81.
84. A sketch in the excavation notebook shows the mosaic at the same level as the bottom of the robbing trench.
85. The graffiti are described in the chapter by Benefiel and Coleman, this volume. Fragments of fallen painted plaster with graffiti were also found in destruction debris in Room 2L.
86. Not recorded in the excavation notebook, but mentioned on excavation drawing number 2056.
87. The excavators thought that mosaic M8 abutted fresco 2390; unfortunately, the room was not completely excavated, with walls across the entire southwestern half never exposed.
88. Fresco 2493, 2306, 2406, and 2401.
89. Contexts 2312 and 2379. Other finds: IR116, IR335, IR464–466, BR73.
90. Contexts 2275 and 2294. Other finds: IR17, IR46, IR97, IR117, IR118, IR176, IR305, IR459–461, IR512, BR80, BR143.
91. Contexts 2295 and 2376. Other finds: IR225, IR387–390, IR404, IR463–464, IR512, BR60, BR62, BR85–86, BR89.
92. Room 2M was filled with burnt destruction debris (context 2095) covered by two levels of mud-brick collapse (contexts 2262 and 2256). A window bar (IR274) was found in the upper level.
93. IR281–284.
94. BR172 also belongs to context 2269.
95. See the chapter in volume 3 by Parton for Q4 and Q6.
96. Scott catalogue number IR28, with comparanda.
97. Kennedy 1998, 83–5, figs. 5.3–5.6.
98. Abadie-Reynal 2003, 84, fig. 4 (room E253), fig. 8.
99. Kennedy 1988, 87, fig. 5.3.
100. Seen in the House of the Consoles at Syrian Apamea (Balby, 1984, 34, fig. 1) and in the townhouse in sector MMS at Sardis (Rautman 1995, 62).

101. Duval (1984, 470), however, has interpreted the closure of the colonnades in two peristyle houses at Syrian Apamea (the House of the Consoles and the House of the Pilasters) as part of a conversion of the peristyles of the houses into long entrance halls. For a general discussion of late antique subdivision, see Ellis 1988, 566–9; Ellis 1997, 46–7.
102. Ellis 1988, 568.
103. For a discussion of soldiers billeted at Dura-Europos during the same period, see Welles 1951, 256–60; Downey 2000, 164, 170–1.
104. Abadie-Reynal et al. 2001, 289, fig. 2.39.
105. Nardi and Önal 2003, 72.
106. The excavators suggested the mortar had been intended to even out imperfections on the rock-cut ledge. Sherds in mortar were used to help adhere marble revetment to walls, but revetment was not found here; cf. Ball 2002.
107. The excavators claim that drum 4014 in the northeast corner of the building was in situ. The lower diameter of drum 4026 matched the upper diameter of drum 4014: 54 cm. The excavators suggested that drum 4027, with a diameter of 52 cm, belonged to a different building.
108. Early (2003, 51) suggested a nymphaeum, but there is no evidence for hydraulic installations.
109. The excavators noted exuberant cleaning in this area, and this may be responsible for the apparent cuttings in the pavement.
110. The pottery from these three layers is included in Kenrick's Group E. Other finds include a spindle whorl (SW22) and lamp (L182) from context 4008, an illegible coin (C241) from context 4004, and a ceramic pedestal base (PT502) from context 4011.
111. Abadie-Reynal and Darmon 2003, 83, fig. 4; Abadie-Reynal et al. 2001, 271–2. The Trench 6 structure was located northeast of the House of the Synaristosai; a 20-m-wide public space separated it from the house. Although it was not fully investigated, the excavators thought it had been a public structure, perhaps pertaining to a sanctuary to Aphrodite.
112. Three bullae came from topsoil (ZB1–3), another came from the destruction debris in Room 9G (ZB5), and another one from the collapse overlying the fourth-century A.D. floor in the same room (ZB4). See the chapter by Herbert, volume 2.
113. This area was located east of Room 9E but was never fully investigated. The southern and western walls were cut from bedrock, with no surviving evidence for interior decoration or access to other rooms. The floor of the room was cut from bedrock and left very uneven. It was the opinion of the excavators that this was a quarry.
114. Early (2003, 47) says that the drain “seems to have fed a bottle-shaped cistern to the east.” A large round area on his plan (fig. 38) is marked as a cistern. Photographs of this area show nothing but solid bedrock in this location (Plate 60B). Nor are there records for a cistern in the excavation notebook.
115. Contexts 9068, 9069, 9095.
116. Some of the walls of this room had a gray plaster coating (contexts 9172 and 9173).
117. Wall 9030 is assigned two numbers in the Unpublished Interim Report: 9114 and 9030. Early assigns 9114 (2003, fig. 38).
118. Make-up layer: context 9083. Floor: context 9007.
119. The render is contexts 9066 and 9067; the painted plaster is fresco 9123, 9125 and 9126.
120. The pottery includes Eastern Sigillata A of the Flavian period (Hayes Form 67: PT254) and some corrugated cooking ware, which first appears at the same time (cf. Kenrick's Group C).
121. Context 9102. Diameter 49 cm.
122. There is some question about the location of this context (9207). A note added to the excavation records sometime after excavation suggested that context 9207 was equivalent to make-up layer 9083, and that both were located in Room 9D. The sketch in the excavation notebook for context 9207 does not clearly indicate the position of the context, although the excavators mention a rock-cut chamber. The only rock-cut chamber is in Room 9B. The matrix in the excavation notebook associates the layer with 9066 and 9067, plaster covering the southeast corner of Room 9D, thus it is possible that context 9207 could represent the later fill under the bowl and abutting the plaster.
123. The use of this space is uncertain, partly because the elevation of the surface was not recorded. The excavator identified context 9196 as an occupation surface. Several coins came from this context, two illegible (C287, C288), one possibly of Septimius Severus (C173), and one of Constantius II (C201). The late Roman coin is probably an intrusion, since much of the northern edge of the floor had eroded away and was covered by a later collapse (context 9190), which may have come from the upper terrace. Within this collapse was a Vandalic coin (C218).
124. The amphora is SF 790.
125. The spindle whorls are SW29, SW30, SW65, SW62, all from contexts 9073 and 9076. These are perhaps indicative of a weaving workshop: see the chapter by Parton, volume 3.
126. Context 9076: C25, C34, C37, C66, C86, C124, C161, C255. Context 9073: C22, C101, C121, C129, C188.
127. IR370 and IR371.
128. C59, C61, C87, C88, C97, C99, C118, C122, C136, C177, C182.
129. The make-up layer stood 13 cm above the preserved height of ashlar wall 9341, indicating that the upper levels of the wall had been removed at some time after the depositing of the make-up layer and its overlying mosaic. The western face of the make-up layer had a mortar render, which was also found on the western edge of wall 9336. The excavator suggested that the render on the wall indicated a doorway, but could not explain the render on the western edge of the make-up layer. I would suggest that the ashlar wall had been initially rendered. When the upper blocks were removed, the render appears to have remained, fused to the edge of the make-up layer for the mosaic, as well as to the western edge of wall 9336. It is likely that the gap in wall 9336 does not represent a doorway, but a place from which an ashlar had been removed.
130. Early (2003, 47) identified a niche in the eastern wall of the room, but sketches and plans by the excavators show that no such gap existed.
131. Fresco 9280, 9281, and 9310. The graffiti are described in the chapter by Benefiel and Coleman, this volume.
132. Although the excavators described the floor as 10 cm thick, the only pottery associated with it was an intact pot stand (D. 23 cm, H. 8.7 cm; see Kenrick's Group D), which may have been resting on the floor. A coin (C92) dated to the reign of Gordian III (A.D. 238–244) was also recovered from this floor. Although these objects may date the construction of the room to around the middle of the third century A.D., it is more likely that they were objects within the room at the time of destruction.
133. By the time of this phase of construction, the Seleucid wall (recognized through cuttings in the bedrock) had been removed. It is not clear whether the ashlar wall had been taken down at this time, or whether it had been removed sometime earlier. In any case, the position of the new north wall was approximately 1 m north of the line of the old Seleucid-phase wall.
134. The ceramics include a coarse-ware pot stand and fragments of a brazier. Coins: C105, C109, C116, C126–127, C137–138. Kevin Butcher has suggested that some of the coins might have strayed from other hoards found in the building. The excavators thought this context might belong to an earlier destruction, claiming that parts of it were sealed by an earthen floor identified in Room 9I (context 9227) and on the west side of Room 9H (context 9256). However, a parsimonious explanation allows for

- mixing of finds above and below the alleged surface in salvage and robbing activity after the Sasanian attack.
135. The render is contexts 9116, 9117, 9315; the painted plaster is fresco 9317, 9318, and 9319.
  136. Although the single coin found in this context (C128) was from the reign of Trajan, the pottery of 9175 comprised coarse wares typical of mid-third-century deposits, together with a rare instance of African Red Slip Ware: a bowl of Hayes Form 45 (from ca. A.D. 230). A sherd joining this bowl belongs to context 9176 in Room 9F. The upper burnt layer of Room 9G (context 9137) yielded another fragment of Hayes Form 45 in African Red Slip Ware, possibly from the same vessel. Context 9175 was particularly rich in metal finds, with 32 iron fragments (in addition to 120 iron nails) and 4 copper alloy objects. Many of the iron objects had to do with lock boxes, since keys, padlocks, and padlock cases, as well as hinges (perhaps from boxes) were recovered. The copper alloy objects included fragments of two vessels and a pedestal for a statue. Three spindle whorls were also found in this context (SW32–34).
  137. Recorded in an unpublished preliminary report on the glass by Dr. Jennifer Price, who also suggested that the lime dump may in fact be melted glass (personal communication). Context 9195 preserved the lower half of a female figure carved from bone (B29). Iron vessel fragments (IR128, IR129) were collected from the overlying layer of mud-brick collapse (context 9194).
  138. See the chapter by Butcher, volume 3, for recycling as a possible motive for the collection of Hoard 1.
  139. Hoard 1 in the chapter by Butcher.
  140. Hoards 3 and 4 in the chapter by Butcher.
  141. The collapse layer (context 9176) yielded both Middle and Late Imperial pottery, the latter represented by a large part of a Syrian painted amphora.
  142. The date of this wall is unknown. The excavation notebook shows it founded on destruction debris 9175 and abutted by mud-brick collapse 9137, implying it was created after the mid-third-century Sasanian attack and before the collapse of the room. Early (2003, 49) mentions the wall but does not illustrate it (fig. 38). A surface associated with this wall was not apparent, nor were finds postdating the mid-third century from contexts 9175 and 9137.
  143. Three sherds of African Red Slip Ware, including one Hayes Form 61 or similar (from ca. A.D. 325) and two Hayes Form 67 (A.D. 360–470). This context also yielded a bone pin (B8).
  144. A foundation trench (context 9255) was cut through destruction contexts 9231 and 9252 along the south face wall 9250. Unfortunately, the fill of the trench (contexts 9254 and 9253) yielded no datable finds. The new east wall (9251) appears to have been built up against the room's previous east wall.
  145. Inscription: Crowther catalogue number IN3. Block with cross motif: A52.
  146. Contexts 9238, 9239, and 9240. It is unfortunate that none of these contexts yielded finds to help date these events.
  147. Evidence for the laying of mosaic pavements interrupted by the Sasanian attack includes a pile of unused tesserae in the northeast corner of room C in Chantier 9 in excavations by the University of Nantes (Abadie-Reynal et al. 2000, 321). The room was buried by destruction debris dating to the mid-third century.
  148. Wall designations: north wall 5079, west wall 5144, and east wall 5136.
  149. The doorway is context 5148, the marble block is context 5149. The north side of the doorway was covered by wall 5025. The door opened into the room, as indicated by a pivot hole on the south end of the lower step. A bolt hole in the center of the block shows that the door was double. Early (2003, 34) suggested the possibility that the doorway opened onto a street oriented north to south, but no trace of a street came to light from deposits of any phase on the west side of the trench.
  150. Only a small section of this channel was excavated. It measured 35 cm wide and was covered with rough, flat stones.
  151. The pottery from context 5150 cannot be defined more closely than Late Imperial (from the presence of Syrian painted amphora fragments and an amphora lid). Context 5078, however, is attributable to the early sixth century by the presence of Hayes Form 3F in Phocaeen Red Slip Ware (PT473), together with a rim and a base of Hayes Form 2 in Cypriot Red Slip Ware (PT475–476). Context 5078 is included in Kenrick's Group E. Colluvium layer 5150 was disturbed by some sort of cut, possibly a robbing trench. Its fill (context 5140) yielded a copper alloy figurine of Aphrodite of the Anadyomene type (BR153).
  152. Ceramics were not discovered within the fills of the construction cuts of these walls, but a copper alloy boss with an iron nail (BR99) was found in context 5080, the fill of the construction cut for wall 5015.
  153. Floor surface for Room 5A: context 5044. Exterior surface west of Room 5A: context 5041. East of Room 5C, the exterior surface is context 5004. The excavators found an unidentified iron object (IR585) and a copper alloy fitting (SF 83) on the floor of Room 5C (context 5021).
  154. The pit measured 42 × 55 cm. The slab measured 56 × 41 × 6 cm. The hole was 10 cm in diameter.
  155. Contexts 5123 included a tiny fragment of Hayes Form 50 in African Red Slip Ware (similar to Kenrick's PT327: second quarter of the third century) and a fragment of a corrugated closed vessel in buff ware, perhaps a small handle-less jar (similar to Kenrick's PT581–582: possibly sixth century A.D.). Context 5124 had a rim of a Late Imperial Syrian painted amphora.
  156. To context 5048 also belongs a copper alloy fitting in the shape of a tragic mask (BR149), perhaps a foot for a metal vessel.
  157. Although wall 5040 was built over the drain, both seem to have been constructed at nearly the same time, since both rest on the same colluvium and are covered by the same leveling layer (5113).
  158. Charcoal collected from the hearth has been provisionally identified as olive wood: see the chapter by Gale.
  159. A coin of Probus (C196), probably residual, was discovered within floor 5035.
  160. Floor: context 5034. Amphora: AM264.
  161. Robbing trenches 5129 and 5010, respectively. The fill found in robbing trench 5010 (fill 5011) contained 3 fragments of Hayes Form 3F in Phocaeen Red Slip Ware. The excavators suggested that the finds had been dredged up from the wall's foundations.
  162. This context contained residual pottery, extending to the early sixth century (Hayes Form 3F in Phocaeen Red Slip Ware). There is, however, a "grenade" in buff ware that may be Umayyad. Context 5000 yielded a second "grenade" as well as a buff sherd with incised decoration that is Umayyad. Other finds from context 5003 include two copper alloy nails (BR92–93), a trough (A35), and a hand-held stone tool (ST2).
  163. Context 5001: several amphorae from the seventh century, including AM262–263; SF 65 and 66, the former a non-Roman form, possibly also Umayyad.
  164. IR201–203 (door straps), IR556 (door nail). These were assigned to the upper context (colluvium 5000), but the excavators associated them with the broken vessels.
  165. Ellis 1988, 565.
  166. Abadie-Reynal et al. 2001, 275–92.
  167. A gap in the north wall (11018) could be a vestige of a doorway, but an ashlar block found on the north side of the wall appears to have been dislodged from this space.
  168. The Unpublished Interim Report calls this room 11068, but the excavation notebook calls it room 11058.
  169. Early (2003, fig. 20) restores a western terminus for the courtyard aligned with the west side of Room 11D.

170. A fragment of an unfluted column shaft was found in destruction debris toppled from base 11078.
171. The lower levels of room 11A were only excavated in a small sondage in the room's southeast corner. A drain was not found here but was observed on the east side of wall 11013.
172. The excavators attributed the angle of the wall to a disturbance in this area and considered its original position aligned with other walls of the house.
173. Fresco 11102 and 11098.
174. The bricks were rectangular, measuring 30 × 20 × 5 cm, and were bonded with white mortar in beds as tall as the bricks. The excavators did not record whether the infill panels were solid brick or brick-faced mortared rubble.
175. Due to the presence of corrugated cooking ware.
176. Pithos: SF 6.
177. Evidence for the operation of the door includes a doorpost socket and pivot hole cut into the threshold.
178. The infill layers were investigated in a 1-m-square sondage in the southeast corner of the room. Materials from these layers are mislabeled in the excavation notebooks. Pottery from the lowest layer (context 11057) dates to the fifth century A.D. or later. Since no other material from this trench is that late in date it seems likely that this lot of pottery was incorrectly tagged and probably came from elsewhere on the site. Pottery was absent from the overlying deposit (context 11056). The excavation notebook shows a list of small finds added to the record for this context some four months after excavation. The list of finds include a stone gaming piece (SF 11), a terracotta stopper (SF 18), a copper alloy cauldron or bucket (BR9), and a coin of a Severan ruler (CI60). But the excavation notebook shows that the bronze vessel came from destruction debris overlying the room to the northwest with the cistern (context 11097), and the vessel has been identified as a bucket for drawing water, making its association with the cistern convincing. Indeed, the discovery of so many small finds in a 1-m-square section of a make-up layer seems unlikely. Finds from this deposit appear to have been assigned to this room in error, and probably belong to context 11097. Because we cannot securely associate these finds with context 11056, the date of the context is in question. Since the floor of Room 11A appears contemporaneous with the floor of Room 11B, they both seem at home in the Middle Imperial phase.
179. The excavators noted that the fountain was built on top of the mosaic, but the floor of the basin was sunk deep below the level of the mosaic.
180. The pottery, exclusively buff and cooking wares, is typical of that presented in Kenrick's Group D.
181. The excavators thought the room had been transformed into a corridor with a new doorway into Room 11A, but there is no evidence for a doorway here.
182. A complete bone pin (B2) was also found in context 11092.
183. The pottery is meager, but it matches Kenrick's Group D. The pithos is SF 235. The amphora is a Reynolds Form 13.
184. These may have belonged to a section of pipe found behind the pithos against the room's south wall (11017). This same arrangement appears in wall 18017 in Trench 18. Downspouts are normally arranged with narrow flanges oriented down and wide cuffs oriented up, but the arrangement of the pipes as found on the floor of Room 11C suggests that this rule may not have been followed here; cf. Adam 1994, 262–3, figs. 608–10.
185. The excavators noted that the make-up of 11027 was very similar to that of 11034, the destruction layer in Room 11D to the west, with ceramics in accord with Kenrick's Group D.
186. Pottery from contexts 11040, 11039, 11038, 11036 (one sherd), 11034, and 11031 matches the character of Kenrick's Group D.
187. IR233, IR258, IR489, IR534, IR596 and six nails. Stone gaming piece: SF 234.
188. Contexts 11037, 11036 (initially interpreted by the excavators as a floor but later as collapse), 11035, 11034, 11033, 11032 (also initially interpreted as a floor but reinterpreted as collapse), and 11031.
189. The contexts are 11140, 11121, 11081, and 11080.
190. The Unpublished Interim Report assigns this object to context 11056, but it is clear from the excavation notebook that the object belongs to context 11097.
191. These features are mentioned in the excavation notebook, but they were not recorded with photography or drawing. They were removed by excavation. Another wall (11029) probably belonged to this phase too.
192. The relationship this deposit and the overlying deposit (context 11065) had to wall 11009 has been obscured by the insertion of a drain (see below).
193. Stone drain: context 11128. Silt: contexts 11134, 11133, and 11132.
194. Contexts 11103, 11104, 11075, 11074, and 11066.
195. For comparanda, especially at Pompeii and Herculaneum, see Jansen 1991; 1997; 2000a; 2000b; cf. Scobie 1986.
196. Jansen (1997, 126) allots 50 cm per individual in a latrine.
197. Jansen 1997, 130–1.
198. Jansen 1991, 155–60.
199. For public latrines, see discussion of Trench 10.
200. Merletto 2000, 303; Neudecker 1994, 14.
201. Zeugma: in Trench 8 and in houses from Area A (Early 2003, fig. 43; Abadie-Reynal 2001, fig. 3), in courtyard P9 in Chantier 12 (Abadie-Reynal et al. 2001, fig. 1.1), and in courtyard room P4 of the House of the Synaristosai Mosaic (Abadie-Reynal and Darmon 2003, fig. 4; Abadie-Reynal et al. 2001, 264, fig. 2.2). Antioch: Stillwell 1961, 48, who calls them "well-nigh invariable"; Lassus 1984; Dobbins 2000.
202. Only the top of the wall was excavated. The north section of the same wall was numbered 19004. The excavators describe the material as limestone; the location was recorded, but a state plan was not prepared.
203. Kenrick's Group A. Half of a copper alloy bracelet (BR36) and a loom weight (LW11) were also found in this deposit.
204. The vessel was not resting on a surface but was dumped in with the rubble fill. For context 19012, excavation drawings and photos document a basin or amphora with a diameter of ca. 50 cm. The only vessel associated with context 19012 among the finds retained by the excavators for study was a kantharos with a diameter of about 20 cm in the black-slipped predecessor of Eastern Sigillata A. The shape is that of Hayes (1985) Form 15A in Eastern Sigillata A, attributable approximately to the first half of the first century B.C., or a little earlier. The black-slipped version perhaps belongs to the later second or early first century.
205. Two sherds of Eastern Sigillata A indicate the date.
206. The excavators noted that some of the finds from this context were mixed with the finds from 19008. The pottery labeled context 19006 included much Hellenistic fine ware and several sherds of late Hellenistic forms in Eastern Sigillata A. The latest readily datable piece was a sherd of the latter half of the first century A.D.; there were, however, some tiny fragments of corrugated cooking ware, which are first attested in the Flavian period (see Kenrick's Group C). These may be relevant or may be intrusions from context 19001 above. Many small finds were found here: a loom weight (LW16), a clay handle (SF 3416), a bone spatula (B20), a terracotta disc (SF 4318), and a terracotta figurine (TC8).
207. The pottery included late Hellenistic and early Roman fine ware, a few sherds of corrugated cooking ware (Flavian or later), a Late Imperial amphora lid, and some scraps of green-glazed ware, which are probably Islamic. Several small finds came from this deposit: a stone mold (SF 3413) and a lamp dating to the first century B.C. (L38).

208. A gap at the east end of the southeast wall (12015) may also have been a doorway, but adjacent blocks appear chiseled away, and the gap may be the result of robbing.
209. Contrary to the opinion of the excavators, walls 12007 and 12042 (the narrower part of the wall at the eastern limit of excavation) were part of the same structure, made of the same pier-and-panel construction, with spolia present. The block with the incised cross is A61.
210. Contexts 12037, 12036, 12035, 12034, 12033, and 12032.
211. Contexts 12031, 12019, and 12016. The mosaic fragments are M25 in Dunbabin's catalogue.
212. The excavators placed 12007 and 12008 in the same phase of construction.
213. The sections of pipe measured 27 cm long with an interior diameter of 11 cm, and they were bonded with white mortar.
214. Kenrick's Group F, especially PT513–515, PT528.
215. Contexts 12010, 12002, 12023, 12024, and 12022. The excavators called 12022 a surface, but it was very thin and only recognized in the profile.
216. Abadie-Reynal et al. 2001, 249–56; 2000, 319, 323; 1999, 311–23; 1998, 388–93.
217. Wall 7017 was never drawn on the plan of the trench, but its features can be ascertained from excavation photographs and notebook drawings.
218. The individual pipe joints are bonded together with white mortar and measure 41 cm long, with a diameter of 15 cm.
219. Some parts of the excavation record call this wall 7016 or 7205.
220. The pottery in the upper deposit included one sherd of mid-Roman date that is probably intrusive.
221. A number of smaller walls were discovered between walls 7038 and 7167, but the date and purpose of these are unknown. Likewise, other walls south of wall 7038 could not be dated, nor could function be determined.
222. This context is included in Kenrick's Group B. The latest securely datable sherd from 7118 is a fragment of a plate in Eastern Sigillata A (PT242) with a stepped underside, a feature that first appears in the Augustan period.
223. The excavators identified context 7007 as a rough surface. But it was 30 cm deep and filled with small finds and pottery, so occupation debris is preferable. The precise relationship between wall 7013 and the occupation debris was destroyed by a robbing trench.
224. Glass stirring rod: SF 488. Intaglio: SF 487.
225. Kenrick's Group C.
226. Finds included 99 sherds and a distaff made of antler (B13). A number of joins among the sherds suggest that this material, while surely redeposited, is less mixed and rather more coherent than material in other make-up levels.
227. In Room 7A, habitation level 7070 was covered by overburden (context 7002) primarily removed by machine. The surface in Room 7B (context 7021) was buried in a rubble layer with residual pottery (context 7020).
228. Kenrick's Group F.
229. Below the floor the room was filled with rubble (context 7143), and a make-up layer (context 7142, like context 7141 discussed above) that included a Late Imperial Syrian painted amphora.
230. Several nails, perhaps from the doorframe, were found in the socket.
231. The excavators were undecided about the date of these walls (7390, 7391, 7275); a date no earlier than the Early Imperial phase is within the bounds of probability.
232. The excavators identified floors in the corridors around the courtyard in small sondages, but their relationships are uncertain because elevations were not recorded. In the southern corridor a make-up layer (context 7299) and its mortared floor (context 7298) covered the earlier floor (context 7300) that extended into the southern half of the western corridor at the height of the curb surrounding the courtyard (Plate 99A). In the west corridor this floor was covered by another floor (context 7293), which was in turn covered by a thin ash-filled layer (context 7292), perhaps indicating that the building had suffered damage by fire. Context 7292 was covered by yet another floor (context 7080).
233. One of these plinths supported a reused marble column base (7284).
234. Similar to Kenrick's PT517.
235. The iron strap (SF 666) is a binding or strap with a circular expansion to receive a nail.
236. Kenrick's Group F.
237. At Ephesos and elsewhere, most late antique houses were adapted from preexisting buildings; Ellis 1997, 38–42.
238. On a more magnificent scale this can be seen in the Palace of the Dux at Apollonia, where the peristyle widens on the approach to a triclinium to the north; Ellis 1985; 1997, 43.
239. Crowther catalogue number IN13.
240. Context 7326 included a fragment of Phocaeen Red Slip and a few late amphora sherds.
241. The layer above context 7322 was apparently removed by machine. The pottery from this context included a sherd of Phocaeen Red Slip Ware (PT471) of the third quarter of the fifth century A.D., plus a rim of a Gaza amphora and another ribbed amphora sherd.
242. The context yielded sherds of Syrian painted amphorae and an associated amphora lid.
243. Only the southern section of the pit was excavated. Its diameter was 1.30 m and its depth 32 cm.
244. The exposed portion of the pit was 1.60 m long and 60 cm deep. The pottery seems to belong between the second century B.C. and the first century A.D.; see Kenrick's Groups A–C.
245. This pit was only partially excavated, but was probably circular, measuring ca. 1 m in diameter and 65 cm deep.
246. The largest and northernmost was 18099 (diameter 1.30 m, depth 80 cm), which abutted 18100 (diameter 80 cm, depth 60 cm), which in turn abutted pit 18101 (diameter 78 cm, depth 50 cm). The excavators note that the pottery was possibly mixed with context 18083.
247. The north end of wall 18026 seems to have been removed in two phases, first intentionally in the first century A.D., and then later through robbing. The removal of the ashlar exposed more of a foundation wall beneath it (contexts 18176 and 18089). Early (2003, 19, fig. 8) calls context 18176 a doorway between walls 18026 and 18089. The excavation notebook, however, makes it clear that 18176 was part of the foundation wall for 18026. Another small section of walling (unnumbered) at the northern end of wall 18026 was oriented east to west and bonded with the foundations of wall 18206.
248. The make-up layer included local Hellenistic fine ware and two rather heavy rims in red cookware that are possibly Hellenistic.
249. Contexts 18095 and 18096 are probably connected to this expansion: two stacks of brick and mortar, with bricks measuring 30 cm square, abut the southern face of wall 18207 and sit atop the northern end of wall 18089. These may have served as the lower supports for a brick archway (whose other side has been disrupted by the robber's trench) leading into Room 18C.
250. The excavators interpreted the gap as a doorway. The panel may have been destroyed by mechanized excavation of this area.
251. Context 18062 can be dated by a fragment of Eastern Sigillata A of the first century A.D. A sherd of a Syrian painted amphora of Late Imperial date from this context is intrusive.
252. Painted plaster on pier: fresco 18029, 18030 and 18031. Painted plaster on west wall: fresco 18024 and 18025. See Bergmann, this volume, for descriptions of the wall painting.

253. The excavators considered two stones on the floor of Room 18B against the foundations of wall 18075 a threshold.
254. Fresco 18033, 18034, 18042 and 18043.
255. Pier 18028 preserved plain render. Pier 18041 had render and plaster: contexts 18040 and 18039.
256. Dated from two sherds of Eastern Sigillata A.
257. The pottery consisted of buff and cooking wares like those in Kenrick's Group D, together with a few scraps of red-slipped fine ware that may be a regional imitation of African Red Slip Ware of the mid-third century A.D.
258. Once the pipe was inserted into the groove in the pier it was sealed with plaster (18189); Adam (1994, 261, fig. 608) associates such drains with upper-story latrines.
259. The pottery from this layer is similar to that from context 18085 below it.
260. The pottery from this layer is indistinguishable in date from that in levels beneath, and consistent with that in Kenrick's Group D.
261. The gold fitting is GD3.
262. Sample 18014 in the chapter by Challinor and de Moulins in volume 3.
263. Fineware and cookware from this context are catalogued in Kenrick's Group D. The amphorae are Reynolds AM238–260.
264. Contexts 18071, 18087, 18088, 18102, 18167, 18172, 18174, and 18175 (Plate 108A).
265. Bricks: 20–30 × 15–20 × 3 cm.
266. Diameter of pit 13044: 80 cm. Pit 13045: 70 cm.
267. The sockets were 20 × 20 cm square, 10 cm deep, and spaced 30 cm apart.
268. Cf. Adam 1994, 196–200.
269. Fresco 13024, 13025, 13026, and 13039. The bedrock walls were picked to better receive the rendering applied beneath the painted plaster.
270. Fresco 13005 and 13010.
271. Described under "Appendix" following M26 in the chapter by Dunbabin, this volume.
272. So identified by Mehmet Önal.
273. The pottery was meager: two sherds of corrugated cooking ware consistent with a mid-Roman date.
274. IR101–104, IR131, IR343, IR491, 36 nails. For the pottery, see Kenrick's Group D.
275. See the chapter by Challinor and de Moulins in volume 3.
276. It is not clear from excavation photographs or notebooks whether the brickwork was solid brick or facing over cement (*opus testaceum*). The former was a standard Roman building technique, but not common to Asia, except in Cilicia. Elsewhere, solid brick masonry was the norm when brickwork was involved; Dodge 1987, 107–8; Deichmann 1979, 479–83.
277. Abadie-Reynal et al. 1999, 323–31.
278. In general, the documentation for this trench is meager: descriptions survive for only 14 of the 58 contexts excavated.
279. Dated by a coarse-ware fragment of a large closed vessel with incised decoration (similar to PT640), which is probably Islamic.
280. A glazed sherd and a fragment of buff ware with incised lattice decoration.
281. According to the excavators, there was no clear demarcation between contexts 1024 and 1056.
282. Context 1024 yielded much glazed tableware, as well as Islamic buff and cooking wares (see Kenrick catalogue numbers PT627, PT630, PT633, PT648, PT656, PT661), alongside residual Early and Late Imperial pottery. It also contained a coin (C197, probably Valerian or Gallienus), a fragment of a bone pin (B4), fragmentary lamps (SF 1001, SF 1010), a glass bead (SF 1033), and a copper alloy strip (SF 1049). Finds from context 1056 were scanty: a fragment of a small terracotta mask (TC15) and a blue-glazed sherd that may be Islamic, but could also be Parthian and therefore much earlier.

283. The pottery was not fully quantified, but there is a substantial element of residual late Hellenistic and Early Imperial tableware, alongside Islamic material, which may extend into the ninth century.
284. A small strip (SF 1003) and a stud (SF 1030) were also found in this context. Nearby, context 1018 had two more residual coins: C96 (Gordian III) and C108 (Caracalla or Elagabalus).
285. See the chapters by Elton and by Hartmann and Speidel in volume 3.

## BIBLIOGRAPHY

- Abadie-Reynal, C. 2000. "Works at Zeugma in 1999." *Kazı Sonuçları Toplantısı* 22.2:221–32.
- . 2001. "2000 Zeugma Works." *Kazı Sonuçları Toplantısı* 23.1:449–61.
- Abadie-Reynal, C., and J.-P. Darmon. 2003. "La maison et la mosaïque des Synaristosai (Les Femmes au déjeuner de Ménandre)." In *Zeugma: Interim Reports*, edited by J.H. Humphrey, 79–96. *JRA Suppl.* 51. Portsmouth: Journal of Roman Archaeology.
- Abadie-Reynal, C., and R. Ergeç. 1998. "The Zeugma and Apameia Works 1997." *Kazı Sonuçları Toplantısı* 20.2:403–23.
- . 1999. "1998 Zeugma kurtarma kazısı." *Kazı Sonuçları Toplantısı* 21.2:221–32.
- Abadie-Reynal, C., et al. 1996. "Mission archéologique de Zeugma: Rapport sur la campagne de prospection 1995." *Anatolia Antiqua* 4:311–24.
- . 1997. "Mission de Zeugma-moyenne vallée de l'Euphrate." *Anatolia Antiqua* 5:349–70.
- . 1999. "Zeugma-moyenne vallée de l'Euphrate: Rapport préliminaire de la campagne de fouilles de 1998." *Anatolia Antiqua* 7:312–66.
- . 2000. "Zeugma-moyenne vallée de l'Euphrate: Rapport préliminaire de la campagne de fouilles de 1999." *Anatolia Antiqua* 8:274–337.
- . 2001. "Zeugma: Rapport préliminaire de la campagne de fouilles de 2000." *Anatolia Antiqua* 9:244–305.
- Adam, J.P. 1994. *Roman Building: Materials and Techniques*. Indianapolis: Routledge.
- Allison, P. 1997. "Roman Households: An Archaeological Perspective." In *Roman Urbanism: Beyond the Consumer City*, edited by H.M. Parkins, 112–46. New York: Routledge.
- Ball, L.F. 2002. "How Did the Romans Install Revetment?" *AJA* 106:551–74.
- Balty, J. 1984. "La maison aux consoles." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 19–57. Brussels: Centre belge de recherches archéologiques.
- Balty, J. Ch. 1984. "Notes sur l'habitat Romain, Byzantin et Arabe d'Apamée: Rapport de synthèse." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 471–506. Brussels: Centre belge de recherches archéologiques.
- . 1989. "La maison urbaine en Syrie." In *Archéologie et histoire de la Syrie II: La Syrie de l'époque achéménide à l'avènement de l'Islam*, edited by J.M. Dentzer and W. Orthmann, 407–22. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Bek, L. 1983. "Questiones convivales: The Idea of the Triclinium and the Staging of Convivial Ceremony from Rome to Byzantium." *AnalRom* 12:81–108.
- Butcher, K. 2003. *Roman Syria and the Near East*. Los Angeles: Getty Publications.
- Clarke, J.R. 1991. *The Houses of Roman Italy 100 B.C.–A.D. 250: Ritual, Space and Decoration*. Berkeley: University of California Press.

- Deichmann, F.W. 1979. "Westliche Bautechnik in römischen und römischen Osten." *RM* 86:473–527.
- Dobbins, J.J. 2000. "The Houses at Antioch." In *Antioch, the Lost Ancient City*, edited by C. Kondoleon, 51–62. Princeton: Princeton University Press.
- Dodge, H. 1987. "Brick Construction in Roman Greece and Asia Minor." In *Roman Architecture in the Greek World*, edited by S. Macready and F.H. Thompson, 106–16. London: Thames and Hudson.
- Downey, S.B. 2000. "The Transformation of Seleucid Dura-Europos." In *Romanization and the City: Creation, Transformations and Failures. Proceedings of a Conference Held at the American Academy in Rome to Celebrate the 50<sup>th</sup> Anniversary of the Excavations at Cosa, 14–16 May, 1998*, edited by E. Fentress, 154–72. Portsmouth: Journal of Roman Archaeology.
- Duval, N. 1984. "Les maisons d'Apamée et l'architecture 'palatiale' de l'antiquité tardive." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 447–70. Brussels: Centre belge de recherches archéologiques.
- Early, R., et al. 2003. "Rescue Work of the Packard Humanities Institute: Interim Report." In *Zeugma: Interim Reports*, edited by J.H. Humphrey, 9–56. *JRA* Suppl. 51. Portsmouth: Journal of Roman Archaeology.
- Ellis, S.P. 1985. "The Palace of the Dux at Apollonia and Related Houses." In *Cyrenaica in Antiquity*, edited by G. Barker, J. Lloyd, and J. Reynolds, 15–25. *BAR-IS* 236. Oxford: British Archaeological Reports.
- . 1988. "The End of the Roman House." *AJA* 92:565–76.
- . 1997. "Late Antique Houses in Asia Minor." In *Patron and Pavements in Late Antiquity*, edited by S. Isager and B. Poulsen, 38–50. Odense: Odense University Press.
- . 2000. *Roman Housing*. London: Duckworth.
- Ergeç, R. 1998. "Belkis/Zeugma 1997–1998 kutarma kazılarları." *Kazi Sonuçları Toplantısı* 21.2.
- Ergeç, R., M. Önal, and J. Wagner. 2000. "Seleukeia am Euphrat/ Zeugma: Archäologische Forschungen in einer Garnisons- und Handelstadt am Euphrat." In *Gottkönige am Euphrat: Neue Ausgrabungen und Forschungen in Kommagene*, edited by J. Wagner, 104–13. Mainz am Rhein: Philipp von Zabern.
- Gisler, J.-R., and M. Huwiler. 1984. "La maison aux pilasters." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 79–106. Brussels: Centre belge de recherches archéologiques.
- Hales, S. 2003. *Roman House and Social Identity*. Cambridge: Cambridge University Press.
- Hanoune, R. 1984. "La maison romaine: Nouveautés." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 431–46. Brussels: Centre belge de recherches archéologiques.
- Hodge, A.T. 1992. *Roman Aqueducts and Water Supply*. London: Duckworth.
- Hoepfner, W. and E.-L. Schwandner. 1994. *Haus und Stadt in klassischen Griechenland*. Munich: Deutscher Kunstverlag.
- Jansen, G.C.M. 1991. "Water Systems and Sanitation in the Houses of Herculaneum." *Meded* 50:145–63.
- . 1997. "Private Toilets at Pompeii: Appearance and Operation." in *Sequence and Space in Pompeii*, edited by S.E. Bon and R. Jones, 121–34. Oxford: Oxbow.
- . 2000a. "Studying Roman Hygiene: The Battle between the 'Optimists' and the 'Pessimists.'" In *Cura Aquarum in Sicilia: Proceedings of the Tenth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Syracuse, May 16–22, 1998*, edited by G. Jansen, 275–79. *BABesch* Suppl. 5. Leiden: Bulletin Antieke Beschaving.
- . 2000b. "Systems for the Disposal of Waste and Excrete in Roman Cities: The Situation in Pompeii, Herculaneum and Ostia." In *Sordes urbis: La eliminacion de residuos en la ciudad romana: actas de la reunión de Roma. 15–16 de Noviembre 1996*, edited by X. Dupré Raventós and J.-A. Remolà, 37–49. Bibliotheca Italica, Monografías de la Escuela Española de Historia y Arqueología en Roma 24. Rome: "LERMA" di Bretschneider.
- Kennedy, D.L., ed. 1998. *The Twin Towns of Zeugma on the Euphrates: Rescue Work and Historical Studies*. *JRA* Suppl. 27. Portsmouth: Journal of Roman Archaeology.
- Koloski-Ostrow, A.O. 1996. "Finding Social Meaning in the Public Latrines of Pompeii." In *Cura Aquarum in Campania: Proceedings of the Ninth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region*, edited by N. de Haan and G. Jansen, 79–86. *BABesch* Suppl. 4. Leiden: Bulletin Antieke Beschaving.
- . 2000. "Cacator cave malum: The Subject and Object of Roman Public Latrines in Italy during the First Centuries B.C. and A.D." In *Cura Aquarum in Sicilia: Proceedings of the Tenth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Syracuse, May 16–22, 1998*, edited by G. Jansen, 289–95. *BABesch* Suppl. 5. Leiden: Bulletin Antieke Beschaving.
- Lassus, J. 1984. "Sur les maisons d'Antioche." In *Apamée de Syrie: Bilan des recherches archéologique 1973–1979. Aspects de l'architecture domestique d'Apamée*, edited by J. Balty, 361–75. Brussels: Centre belge de recherches archéologiques.
- Merletto, A. 2000. "Public Toilets in the Roman World: Peculiarities and Diffusion." In *Cura Aquarum in Sicilia: Proceedings of the Tenth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Syracuse, May 16–22, 1998*, edited by G. Jansen, 297–305. *BABesch* Suppl. 5. Leiden: Bulletin Antieke Beschaving.
- Nardi, R. and M. Önal. 2003. "The Bronze Statue of Mars: Interim Report." In *Zeugma: Interim Reports*, edited by J.H. Humphrey, 69–78. *JRA* Suppl. 51. Portsmouth: Journal of Roman Archaeology.
- Neudecker, R. 1994. *Die Pracht der Latrine*. Munich: Verlag Dr. Friedrich Pfeil.
- Rautman, M.I. 1995. "A Late Roman Townhouse at Sardis." In *Forschungen in Lydien*, 49–66. *Asia Minor Studien* 17. Bonn: Rudolf Habelt.
- Scobie, A. 1986. "Slums, Sanitation and Mortality in the Roman World." *Klio* 68:399–433.
- Stillwell, R. 1961. "Houses of Antioch." *DOP* 15:47–57.
- Vetters, H. 1972–5. "Die Hanghäuser an der Kuretenstrasse." *ÖJh* 50:331–79.
- Wallace-Hadrill, A. 1988. "The Social Structure of the Roman House." *PBSR* 56:43–97.
- . 1994. *Houses and Society in Pompeii and Herculaneum*. Princeton: Princeton University Press.
- Ward-Perkins, J.B. 1981. *Roman Imperial Architecture*. New Haven: Yale University Press.
- Welles, C.B. 1951. "The Population of Roman Dura." In *Studies in Roman Economic and Social History in Honor of Allan Chester Johnson*, edited by P.R. Coleman-Norton, 251–74. Princeton: Princeton University Press.
- Wilson, A.I. 2000. "Incurring the Wrath of Mars: Sanitation and Hygiene in Roman North Africa." In *Cura Aquarum in Sicilia: Proceedings of the Tenth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Syracuse, May 16–22, 1998*, edited by G. Jansen, 307–12. *BABesch* Suppl. 5. Leiden: Bulletin Antieke Beschaving.