

The background of the book cover is a photograph of the interior of the Domus Aurea in Rome. It shows a large, circular room with a high, vaulted ceiling made of reddish-brown brick. The walls are made of lighter-colored stone or concrete, showing signs of age and wear. In the center of the room is a large, arched doorway leading to another part of the structure. To the left of the doorway, there is a wall covered in golden mosaics. The floor is a reddish-brown color, matching the ceiling. The overall atmosphere is one of ancient grandeur and historical significance.

THE DOMUS AUREA
AND THE ROMAN
ARCHITECTURAL
REVOLUTION

LARRY F. BALL

THE DOMUS AUREA AND THE ROMAN ARCHITECTURAL REVOLUTION

Nero's palace, the Domus Aurea (Golden House), is the most influential known building in the history of Roman architecture. It has been incompletely studied and poorly understood since its most important sections were excavated in the 1930s. In this book, Larry F. Ball provides systematic investigation of the Domus Aurea, including a comprehensive analysis of the preserved masonry, the design, and the abundant ancient literary evidence. Highlighting the revolutionary innovations of the Domus Aurea, Ball also outlines their wide-ranging implications for the later development of Roman concrete architecture.

Larry F. Ball is Professor of Art History at the University of Wisconsin – Stevens Point. A Fellow of the American Academy in Rome and a Regular Member of the American School of Classical Studies in Athens, he is a scholar of Greek and Roman architecture. He has contributed to the *Journal of Roman Archaeology* and the *American Journal of Archaeology*.

THE DOMUS AUREA
AND THE ROMAN
ARCHITECTURAL
REVOLUTION

LARRY F. BALL

*University of Wisconsin
Stevens Point*



CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

<http://www.cambridge.org>

© Larry F. Ball 2003

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2003

Printed in the United Kingdom at the University Press, Cambridge

Typeface Bembo 10.5/14 pt. and Trajan *System* L^AT_EX 2_ε [TB]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data

Ball, Larry F., 1956–

The Domus Aurea and the Roman architectural revolution / Larry F. Ball.

p. cm.

Includes bibliographical references and index.

ISBN 0-521-82251-3 (hb)

1. Domus Aurea Neronis (Rome, Italy) 2. Architecture, Roman.
3. Rome (Italy) – Buildings, structures, etc. I. Title.

NA320 .B35 2003

728.8'2'09376 – dc21 2002041687

ISBN 0 521 82251 3 hardback

CONTENTS



The Table of Contents has been deliberately made very detailed to serve as a primary reference system for all key rooms, suites, phases and masonry types. Details of a lesser nature are in the index. Given the complexity of the masonry and its chronology in the Esquiline Wing, specific features, phases and masonry types must be cited repeatedly throughout the text, but overall the text is organized so that each major topic has one primary location where its main discussion is concentrated, while the myriad other references to it are ancillary to other topics. Accordingly, the Table of Contents has a specific entry for each one of these primary discussion locations, which accounts for its complexity. Throughout the text, then, the names of all masonry types, rooms, suites and larger named portions of the building are capitalized, which indicates that that feature has at least one of these primary discussion locations that is specifically cited in the Table of Contents.

<i>Illustrations</i>	<i>page ix</i>
<i>Acknowledgements</i>	<i>xiii</i>

ONE ■ An Introduction to the Esquiline Wing of Nero's Domus Aurea	I
1. A Historical and Topographical Overview of the Domus Aurea	I
2. The Key Features of the Esquiline Wing	8

3. The Main Masonry Types in the Esquiline Wing	15
4. A Survey of the Decoration in the Esquiline Wing	19
5. Roman Concrete and the Design of the Esquiline Wing	24
TWO ■ Distantly Pre-Neronian Phases	28
1. The West End Group (Rooms 8–17) and the North Corridor Group (Rooms 18–19)	28
The Type A Phase in the West End Group (Rooms 8–17)	28
The Type A Phase in the North Corridor Group	31
The Second Pre-Neronian Phase in Corridor 19	32
2. The Type D Phase and Associated Pre-Neronian Remains	35
3. Type D North of the Pentagonal Court	37
4. Other Distantly Pre-Neronian Walls Apparently Related to Type D	41
THREE ■ The Pentagonal Court	44
1. Pre-Neronian Type X and Related Masonry (Rooms 65–80)	44
Rooms 65–68 and 71–80	48
Rooms 69 and 70	52
2. The South Party Wall	54
3. Pre-Neronian Type C	62
Type C as It Relates to Type X in Room 65A	66
Type C as It Relates to Types X and E in Room 52	68
Type C as It Relates to the South Party Wall and the Neronian Nymphaeum Suite	69
Type C as It Relates to Neronian Phase 1 in Room 36	71
Type C as It Relates to Corridors 92, 93, 141 and 142	74
Corridor 92, phase 1	75
Corridor 92, phase 2	76
Corridor 92, phase 3	77
Type C as It Relates to Neronian Phase 2 in Room 91, Corridor 96 and Rooms 116–119	79
4. The Neronian Phase of the Pentagonal Court	86
Neronian Masonry in the Northeast Group (Rooms 87–91)	88
Neronian Masonry in the North Group (Rooms 80–83)	92
Late Revisions in the Pentagonal Court	94

FOUR ■ The West Block in Neronian Phases 1 and 2	95
1. Overview of the Neronian West Block and the West Court	95
The West Court in Neronian Phase 1	98
The West Court Colonnade and the Transition to Neronian Phase 2	98
2. The West Suite (Rooms 22–36)	108
The Masonry Evidence	113
Corridor 22	116
Group 1 (Rooms 23, 23A and 24) and Group 7 (Rooms 35 and 36)	118
Group 2 (Rooms 25 and 26) and Group 6 (Rooms 33 and 34)	120
Group 3 (Rooms 27–28), Group 4 (Rooms 29–30) and Group 5 (Rooms 31–32)	122
3. The Nymphaeum Suite (Rooms 37–55) and the Neronian South Party Wall	133
Room 38, the Grand Staircase	139
Rooms 39–43	143
The South Nymphaeum Suite (Rooms 37, 47–50 and 53–55)	146
A Chronological Overview of Rooms 44, 45 and 51	150
Room 44: Neronian Phase 1 Type E	153
Room 44: Neronian Phase 2 Type F	157
Room 44: Phase 3 (Type L) and Phase 4 (Type M)	166
Overview of Rooms 45, 46, 51 and 52	170
Room 46	171
Room 45	172
Room 51	183
The Pre-Neronian Remnants in Room 51	185
Room 51 in Neronian Phase 1	187
Room 51 in Neronian Phase 2	195
Room 51: Later Modifications	198
Room 52	199
 FIVE ■ The East Block in Neronian Phase 2	 200
1. Neronian Phase 2 Masonry in Rooms 93–144	200
The Northwest Quarter (Rooms 93–95 and 97–101)	201

The Northeast Quarter (Rooms 103–115)	202
The Southeast Quarter (Rooms 129–134)	203
The East Façade (Rooms 133–144)	205
The Octagon Suite (Rooms 121–128)	207
SIX ■ Synthesis: Three Interpretive Essays	219
1. Masonry Implications for the Design of the Octagon Suite	219
2. The Octagon Suite Groin Vaults and the Genesis of the Imperial Bath Type	229
The Early Rotunda at Baia	230
The Baths of Agrippa	232
The Baths of Nero	238
The Baths of Titus	249
Later Imperial Baths in Rome: The Baths of Trajan, Caracalla and Diocletian	254
3. The Personae of Severus and Celer and the History of Roman Concrete Design	258
<i>Notes</i>	277
<i>Bibliography</i>	303
<i>Index</i>	309

ILLUSTRATIONS



All photos and drawings are by the author. The photos were taken in 1985–6, and show the condition of the Esquiline Wing before the recent campaign of cleaning, restoration and climate control measures. The drawings are based on field studies and a number of published sources cited in the captions. The plans and drawings correctly illustrate the relationships between walls, rooms and other details, but they are not measured precisely. Readers interested in precise room proportions, wall thicknesses, and the like are referred to the superb 1:50 plans prepared by the *Soprintendenza Archeologica di Roma*, published by Fabbrini.

1. Rome: Schematic map in Neronian times.	5
2. Esquiline Wing: State plan with foundations of surrounding buildings.	7
3. Esquiline Wing: Plan with the blocks, groups and suites labeled.	9
4. Esquiline Wing: Schematic plan with symmetrical groups, axial vistas, etc.	10
5. Esquiline Wing: Perspectival reconstruction.	11
6. Esquiline Wing: Plan of distantly pre-Neronian phases: Types A, B, D and Y.	29
7. Room 39: Overview of the west side.	35
8. Corridor 79: View of the eastern straight section, looking east.	39
9. Corridor 92A: Looking west from the west end of Corridor 92.	40
10. Room 85: Overview to the southwest.	41
11. Plan of immediately pre-Neronian phases: Types C and X.	45
12. Pentagonal Court: State Plan.	45

13. Room 67: The southeast end, viewed from inside the room.	49
14. Room 76: Overview to the north, with pre-Neronian skylight.	51
15. Room 80: Overview to the north.	53
16. South Party Wall: Schematic plan of the four main masonry phases.	55
17. South Party Wall: Schematic perspective view at the south end of Corridor 50.	57
18. Room 54: Overview to the south, showing all four phases in Figure 16.	59
19. Room 54: Detail of the southeast corner, corresponding to Figure 17.5.	60
20. East Suite: State plan with pre-Neronian Type C highlighted.	61
21. Room 64: Overview to the east.	65
22. Room 65A: Overview to the south (cf. Fig. 20).	67
23. Room 36: The north half of the east side.	72
24. Room 36: The south half of the east side.	73
25. Corridor 92: The south side of the west end, looking southeast.	77
26. Room 119: Overview to the north.	80
27. Room 116: Overview from southeast to northwest.	81
28. Room 91: Schematic elevation of the south side.	83
29. Plan of the West Block in Neronian phase 1.	97
30. Plan of the West Block in Neronian phase 2.	99
31. Room 23: The small phase 2 north skylight and the lintel below it.	100
32. Elevation of Room 23, north end, viewed from Court 20, in three phases.	101
33. Room 27: The north end skylight, from the interior (south).	103
34. Room 44: 4 phase elevations of the west end, viewed from the West Court (Court 20).	104
35. Room 45A: Type L wall between Rooms 44 and 45A, schematic elevation.	105
36. The so-called Imperial Villa of Oplontis: Schematic plan.	111
37. The Neronian phase 2 window between Room 12 and Corridor 22.	116
38. The south façade of the West Block in the area of Corridor 22 and Room 24.	117
39. Room 25: Southwest corner (south jamb of the door to Room 23A).	121
40. Room 32: Overview to the north.	125
41. Room 27A: Overview to the south.	129
42. Nymphaeum Suite: State plan.	133
43. Villa of the Mysteries, Pompeii: Schematic plan as originally designed, after Maiuri.	137
44. Staircase 38: Schematic elevation drawing reconstructing the four ramps and landings.	141
45. Staircase 38: North side, next to the bottom landing.	143
46. Room 40: The small skylight in the south end lunette.	145
47. Room 47: The small skylight cut through the north lunette.	151

48. Room 44: Section and perspective drawing reconstructing Neronian phase 1.	155
49. Room 44: Section and perspective drawing reconstructing Neronian phase 2.	158
50. Room 44: North side: View to the north through the doorway into Room 40.	159
51. Room 44: South half (Room 44B on Fig. 42): Overview to the east.	169
52. Room 45: Overview to the east.	173
53. Room 45: North-south sections showing the three phases.	174
54. Room 45: Elevations of the south side, viewed from Room 51.	175
55. Room 45: Perspective drawing of the windows and relieving arches in the south side.	175
56. Room 45: The lunette of the east end (detail of Fig. 52).	177
57. Room 45: The north side.	181
58. Room 51: East side, north half.	184
59. Room 51: East side, south half.	185
60. Room 51: Schematic elevation of the east side (cf. Figs. 58 and 59).	186
61. Room 51: Schematic elevation of the west side reconstructing Neronian phase 1.	187
62. Room 51: Schematic elevation of the west side (cf. Figs. 63 and 64).	189
63. Room 51: West side, south half.	190
64. Room 51: West side, north half.	191
65. Room 51: Detail of the west edge of the apse (cf. Fig. 62).	192
66. Room 51: The remains of the Neronian phase 1 skylights on the west side.	193
67. Room 51: Plan view of the conch.	196
68. Room 51: Overview to the south.	197
69. East Block: State plan with Neronian phase 2 Type F highlighted.	201
70. East Block: Reconstructed schematic plan of the <i>piano nobile</i> , after Fabbrini.	205
71. Octagon Suite: Sequence of plans indicating the solid masonry at different levels.	210
72. Octagon Suite: Transverse section and elevation, looking north.	210
73. Room 125: Section through the crown of the vault and half of the dome of Room 128.	211
74. Rooms 128 and 126: Overview looking north.	212
75. Room 123: Overview to the southeast, with view out the vault haunch clerestory.	213
76. Room 123: Overview to the northeast, with full elevation of the northeast side.	214
77. Room 128: Overview to the north.	215
78. Room 128: Overview of the dome (looking west).	217

79. Room 128: Detail of the dome, with formwork impressions and mosaic remnants.	217
80. The early rotunda at Baia (so-called Temple of Mercury): Schematic plan.	231
81. Baths of Agrippa, Rome: Plans reconstructed by Peruzzi, Palladio and the author.	233
82. Baths of Nero, Rome: The author's reconstruction, based on Palladio and Ghini.	241
83. Scheme for converting the traditional republican bath into an imperial type bath.	247
84. Baths of Titus, Rome: The author's reconstruction, based on Palladio.	251
85. Schematic plans of the Baths of Trajan, Baths of Caracalla and Baths of Diocletian.	255
86. Baths of Diocletian, Rome: Schematic elevation of one <i>frigidarium</i> bay.	257

ACKNOWLEDGEMENTS



This monograph is the result of nearly 20 years of continuous development, in the course of which I have been assisted in myriad ways by many kindly people. It is my pleasure to thank them, with due apologies to anyone I have inadvertently overlooked and with the clear understanding that any errors or lapses remain entirely my fault.

I am particularly grateful to Prof. Adriano la Regina, the archaeological Soprintendente of Rome, for the original permission to conduct my studies and for subsequent support and encouragement.

The initial main phase of this project was my dissertation (1987) for the University of Virginia that comprises the basic field work upon which this monograph is based. During that phase I was supported financially by the McIntire Department of Art at the University of Virginia, the Samuel H. Kress Foundation and my sister, Sarah A. B. Teslik, esq., and her family – all of whom I thank. I thank Prof.ssa Laura Fabbrini for her generosity in sharing her ideas concerning the Esquiline Wing with me on site. While my conclusions differ from hers, it has certainly been stimulating to hear her alternative interpretations as I was conducting my own studies. I also thank Prof. John J. Dobbins of the University of Virginia for his detailed critiques, timely advice and helpful suggestions at all phases of the dissertation project.

The second phase of this project was the development of a detailed interpretation of the masonry described in the dissertation, as well as the wider application of the improved understanding of the Esquiline Wing to the rest of the field of Roman

concrete architecture. This phase initially culminated in the long article on the Esquiline Wing in the *Journal of Roman Archaeology* in 1994. Financial support for the second phase was provided by the American Academy in Rome, the Andrew W. Mellon Foundation, the University of Wisconsin–Stevens Point and the Pompeii Forum Project (John J. Dobbins, director) – all of whom I thank. I especially thank my friends and colleagues at the American Academy, who offered advice, critiques and patience as I endlessly tested my interpretations on them. In particular, I thank Charles Babcock, Professor-in-Charge at the American Academy for 1988–89 for advice and assistance bordering on hard labor, as well as our little legion of archaeological fellows, Joanne Spurza, Anna Moore and Jim Higginbotham. Admittedly being named in these acknowledgements is scant compensation for the endless instances when someone forced the topic of Roman bricks onto dinnertime conversation, but I do hope all understand how grateful I am for their *aperçus*. I also thank Marina Lella for innumerable instances of logistical assistance.

The final phase of this project is the current monograph, supported in the first instance by sabbatical leave from the University of Wisconsin–Stevens Point, which made possible the actual writing of the monograph text.

I am also particularly grateful to my scholarly colleagues who have made numerous invaluable contributions during the final preparation of the monograph, most notably, Lynn Lancaster, Yves Perrin and Eric Moorman, fellow scholars in contemporary *Domus Aurea* studies, who have very generously provided me with off-prints, copies or, in the case of Lancaster's dissertation, a floppy disk of their work. Since many of these publications are difficult or impossible to obtain in central Wisconsin, their generosity has aided my work tremendously. Perhaps even more remarkable, and as the reader of this book will soon understand, it was extremely courageous of all three to aid me in my labors because all three knew how strenuously I argue against their own interpretations. I do hope, and trust, that these fine colleagues understand that my continued disagreement has to do exclusively with data and interpretation, and is in no way personal. I am very grateful for their cooperation and cherish their kindness.

In the final stages of the monograph project, I was assisted inestimably by Eric Varner and Penelope Davies, who gave the original manuscript careful, detailed appraisal and critique. Their scholarly, editorial, rhetorical and diplomatic advice have all been invaluable to me, and have considerably improved the submission draft and, no doubt, eased the labor of Cambridge University Press's anonymous scholarly reviewers. Although I do not know who the latter are, I thank them, too, for their useful contributions. I also thank Beatrice Rehl, senior editor, than whom there is none finer, and the anonymous copy editor who contributed much more than mere punctuation and grammar.

THE DOMUS AUREA AND THE ROMAN
ARCHITECTURAL REVOLUTION

ONE



AN INTRODUCTION TO THE ESQUILINE WING OF NERO'S DOMUS AUREA



1. A HISTORICAL AND TOPOGRAPHICAL OVERVIEW OF THE DOMUS AUREA

Whatever else can be said of Nero's reign, it must have been interesting. Never before nor since has an autocrat been so wholly devoted to the arts, regardless of cost and generally to the exclusion of all else. This phenomenon is well documented, both in ancient literary sources and in the artistic record, not only in terms of Nero's effusive patronage of the arts in all media, but also in terms of the high quality and often audaciously experimental nature of the works executed under his auspices.¹ As was commonly the fate of emperors whose damnation was important to the subsequent dynasty, much Neronian art was systematically destroyed or reworked, leaving only a specter of its original grandeur for modern scholars. This is as true for Nero's architecture as for any art form – a tragedy in the face of a substantial literary record specifically focused on his building projects. In any case, and not surprisingly, the ancient literary tradition focuses especially on Nero's most personal building project – his palace, the Domus Aurea. That Nero would construct a building suitable for his grandiose notion of himself is perhaps predictable and, as far as we can tell, it was a project to which he was devoted from the earliest possible moment in his reign.

The earliest phases of the project, including the actual date and circumstances of its commencement, are mysterious. Presumably it began ca. A.D. 60, that is, shortly

after the murder of Agrippina the year before. The practical need for a new palace was apparently nil, because Nero had inherited a splendid residence, the so-called Domus Tiberiana, built mostly by Tiberius and Caligula, covering at least the western half of the Palatine and looking down into both the Roman Forum and the Circus Maximus. Few details are known of the Domus Tiberiana, however.

The name for Nero's palace, Domus Aurea ("golden house"), is of ancient origin, the most famous reference being Suetonius: "There was nothing however in which [Nero] was more ruinously prodigal than in building. He made a palace extending all the way from the Palatine to the Esquiline, which at first he called the House of Passage [Domus Transitoria], but when it was burned shortly after its completion and rebuilt, the Golden House [Domus Aurea]."² These names are problematic both chronologically and topographically. Nero was working on a palace project throughout most of his reign. He never intended that there would be two specific phases or that one design should replace another, and he probably never intended to stop working on and improving the building. Throughout his reign, Nero did whatever was possible, within whatever limitations he faced at any given stage. It is the nature of those limitations that changed over time, most dramatically as a result of the great fire of A.D. 64. Chronologically the distinction between Domus Transitoria and Domus Aurea is as simple as Suetonius's text indicates: the Domus Transitoria was the first project, from its inception in ca. A.D. 60 until the fire. After the fire came the Domus Aurea, from A.D. 64 to the end of Nero's reign in A.D. 68. All ancient literary sources that name both buildings maintain this chronological distinction.

The topographical and aesthetic distinctions are more problematic, not least because the Domus Transitoria is poorly represented both in archaeological remains and in the literary record. We do know a few key facts about the Domus Transitoria, however. Although it was certainly an ambitious project, it was also much more limited than the Domus Aurea, constrained by the standing architecture in the commercial district in the valley between the Velia and the Caelian and Esquiline hills.³ Nero's plan was simple. He already owned the grand Domus Tiberiana on the Palatine, and he already owned the gardens of Maecenas, a substantial holding covering much of the crown of the Esquiline hill a mile or two away.⁴ The Domus Transitoria, then, was a series of relatively minor constructions inserted between these larger holdings so that Nero could travel back and forth between them in palatial comfort, rarely leaving his own property. Most of the design of the Domus Transitoria is unknown, both because no feature is mentioned in the literary sources and because it was largely swept away, first by the great fire and then by the Domus Aurea. The Domus Transitoria appears to have been more than just a series

of narrow corridors and colonnades inserted opportunistically between existing buildings, however. Instead, Nero apparently obtained and razed large commercial properties, through fair means or foul, so that he could construct a sequence of fairly substantial palatial units to link the Palatine and the Esquiline. The evidence from the Esquiline Wing of the Domus Aurea, the subject of this monograph, confirms this, but also Suetonius says so explicitly: “while some granaries [*horrea*] near the Golden House, whose room he particularly desired, were demolished by engines of war and then set on fire, because their walls were of stone.”⁵ In this passage Suetonius is actually describing events under the rubric of the great fire and the abuses associated with building the Domus Aurea in its aftermath, specifically trying to damn Nero for avaricious seizure of the areas damaged by the fire. I think he is mistaken, however, in that the reference to siege engines is much more likely to concern the Domus Transitoria project. In particular, in the aftermath of the fire this was not a contemptible activity at all; it would make perfect sense to use siege engines to help raze and clear the ruins. Doing so would not have been remarkable, and certainly not an exploitative act as Suetonius intends. For the use of siege engines to be an outrageous activity Nero would have had to direct them against intact buildings belonging to someone else – the situation that existed during the Domus Transitoria phase and not the Domus Aurea. In that case, then, it would make perfect sense for a Neronian period chronicler to record that Nero had done an awful deed, which, when read decades later by Suetonius, would transfer easily, if erroneously, into his catalogue of abuses after the great fire. Equally important, from the literary record it is by no means certain that any of the pre-Neronian buildings in the area would have been reused by Nero as part of his Domus Transitoria project, but the archaeological evidence from the Esquiline Wing demonstrates that this, too, was part of Nero's *modus operandi*. We know little else about the Domus Transitoria, especially in the Esquiline area.

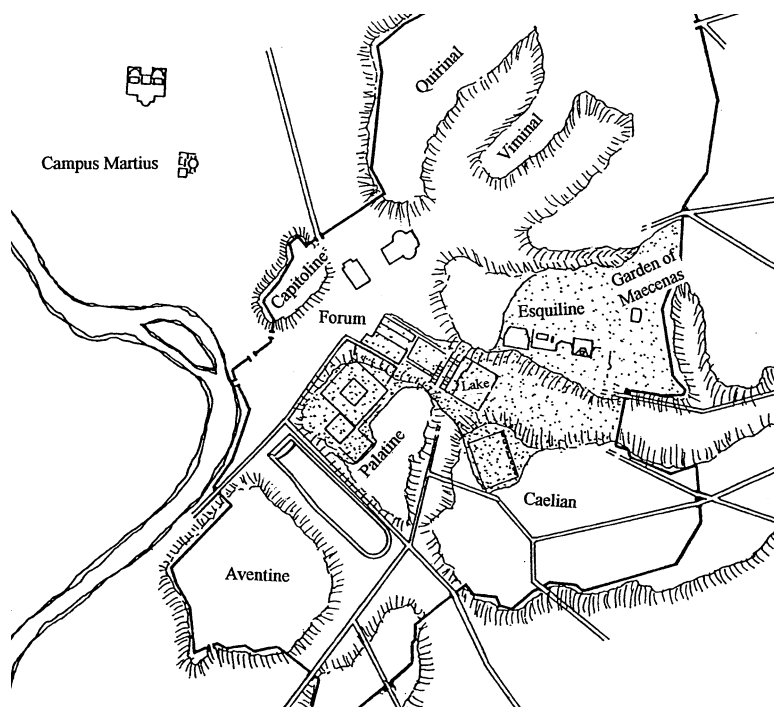
The great fire completely changed the project, however. From Nero's point of view there were two main factors. First, the Domus Transitoria project was damaged in the fire, so that it had to be repaired – and possibly improved in the process. The literary sources and the remains of the Esquiline Wing agree on this. Given the widely spread-out nature of the Domus Transitoria, the degree of destruction probably varied considerably from one part to the next, depending on where the fire was most severe; the Esquiline area was certainly affected by the fire, the Palatine less certainly so. Second, and much more important, the vast acreage of smoking rubble left by the fire gave Nero and his architects a free hand to build a much grander design, unconstrained by any earlier architecture. The Domus Aurea, therefore, would be not only much larger than the Domus Transitoria,

but also, most likely, much fancier and more complex. At this point Nero was completely unconstrained; parts of the Domus Transitoria that no longer pleased him could be modified or replaced.

As ancient literary sources make clear, the Domus Aurea was not just the imperial residence on the Palatine, but also a huge artificial parkland covering the Caelian and Esquiline hills and the valley between them, the area now occupied by the Colosseum (Fig. 1).⁶ Apparently, and predictably, the largest architectural component was on the Palatine, where the Julio-Claudian dynasty had lived for decades, convenient to the forum. In addition, there was an artificial lake in the valley, unknown construction in the area of the Caelian and a rural luxury villa set into the parklands on the south slopes of the Esquiline. This villa is the Esquiline Wing, the only well-preserved fragment of the Domus Aurea and the principal subject of this monograph. There was also a fine vestibule near the Velia, including a notorious statue of Nero more than 100 feet tall.⁷ There were also various lesser structures terraced into the sides of the Palatine and Esquiline facing into the central parkland,⁸ and garden follies in the parklands and around the artificial lake to improve the vista from the major buildings around the perimeter.⁹

Figure 1 is my estimation of the perimeter of the whole Domus Aurea, based on Van Essen,¹⁰ who defines the perimeter generously, and Warden, who defines a more limited park.¹¹ Because the size of the gardens of Maecenas is not known, this is the area of greatest controversy, but the position of the Esquiline Wing on the Oppian ridge of the Esquiline hill and its small size compared with the whole park are certain. Panella clarifies much of the center of the complex in the area of Nero's *stagnum* southwest of the Esquiline Wing.¹² Fabbrini's excavations¹³ demonstrate that the Esquiline Wing had an upper story (*piano nobile*) and that it faced not only to the parklands to the south, but faced also to the north. The latter indicates that the Domus Aurea extended farther to the north than the Esquiline Wing's terrace retaining wall, most likely up to the crest of the Esquiline hill. The Domus Aurea perimeter defined in Figure 1 consists of everything that I know had to be accommodated, plus a few features that are likely but unproven (e.g., the entire terrace for the sanctuary of the deified Claudius on the Caelian¹⁴), but excluding anything that is merely possible but not demonstrated (the southeast half of the Palatine, beyond the known remains of the Domus Transitoria there, and the southwest slope of the Palatine down to the Circus Maximus). With further excavation the perimeter of the Domus Aurea may extend beyond Figure 1, but not by much.

Undoubtedly the Palatine remained the core of the Domus Aurea, the area where Nero attended to his official duties and spent most of his time. The Palatine



1. Rome: Schematic map in Neronian times, with the Domus Aurea area stippled.

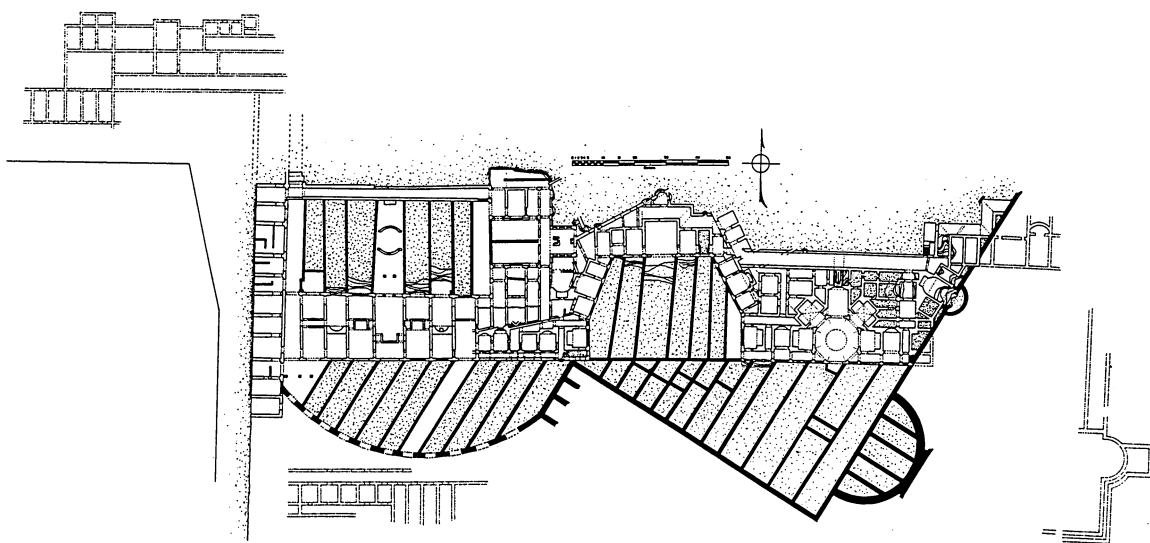
portion of the Domus Aurea is not the subject of this monograph, but what little evidence can be derived from it might have some value for interpreting the Esquiline Wing. It is unclear whether the Domus Aurea reused elements from either the Domus Tiberiana or the Domus Transitoria in this area. A detailed study of the pre-Flavian Palatine might be useful, but the remains in the northwest half of the Palatine, under the Farnese gardens, are likely to be problematic. Our knowledge of those remains is not modern, but comes from the eighteenth and nineteenth centuries, with little published since Lanciani's *Formam Urbis Romae* (FUR) of 1871. More important, because the walls on Lanciani's FUR correspond exactly with what is visible today, we can be confident that Lanciani was reasonably accurate. More troubling, because Lanciani's walls consist exclusively of substructures and *cryptoportici*, it appears that the actual design was destroyed down to foundation level. Two facts are worth emphasizing. First, the remains do have a suggestive design. They vaguely bespeak a Hellenistic palace, resembling the great Macedonian palace at Vergina with a large, square central courtyard, probably colonnaded, and all the surrounding rooms opening into it. The evidence for this design is minimal, however. The features that bespeak a Hellenistic palace consist exclusively of

the square shape of the large platform with a smaller, more-or-less square shape in the center defined on just three sides by *cryptoportici* below platform level. No preserved walls exist in between these two squares at the main floor level of the platform. So, on the one hand, the evidence for a Hellenistic palace motif on the Palatine is extremely tenuous, while, on the other hand, what little evidence there is resembles no other kind of ancient building. More important, the Hellenistic palace motif would be appropriate here, for any phase from Tiberius on, because this was the governmental seat and the urban residence of the Julio-Claudian emperors. Given their unique status in Rome, the Hellenistic palace was the only extant Greco-Roman building type suitable for them. So, regardless of who built the platform and *cryptoportici*, a familiarly palatial motif makes good sense here. It is reasonable to presume that Nero thought in those terms too.

Second, the actual remains appear to be Neronian, not earlier. This does not include much, just the *cryptoporticus* northwest of the Domus Flavia and the barrel vaulted substructures under the southwest edge of the terrace, behind the temple of Cybele.¹⁵ So, tentatively, the Hellenistic motif, if such it is, appears to have been Nero's own intention, apparently completely replacing whatever the Domus Tiberiana, and perhaps the Domus Transitoria, had had in this location.

Relative to the Palatine, the Esquiline Wing is in a fairly peripheral location, and Nero probably perceived it that way. Later I argue that the Esquiline Wing was designed as a suburban villa rather than an urban house, a fact obvious from both the architectural design and the extravagant lengths to which Nero went to provide an artificial rustic setting for it. It is also important to note the contrast between this design and the (putative) Hellenistic palace on the Palatine. Both aesthetically and physically the parklands were closely related to the Esquiline Wing, whereas the Palatine was in an urban setting between the forum and the densely built-up valley around the Circus Maximus, well separated from the park. This contrast suggests that Nero treated the Palatine as his town house, as it had always been, whereas the Esquiline Wing and its parklands were his villa, used in the same way all Roman patricians used their villas. As Tacitus specifies, architecturally the Domus Aurea was not necessarily superior to the villas of the other great aristocrats, in either scale or decoration.¹⁶ Where Nero beat them all was in convenience.

Most ancient sources speak only in general terms about the Domus Aurea, specifying few individual features and neither identifying their locations nor describing them in detail. The Esquiline Wing is not specifically mentioned at all, at least not that we can recognize. From the Latin commentators' point of view, this cursory level of detail was entirely adequate,¹⁷ but my work is much more detailed, necessarily focused on the Esquiline Wing because that is the only good architectural



2. Esquiline Wing: State plan with Trajanic foundations and related walls outside the accessible areas (after de Romanis, Fabbrini and MacDonald).

sample we have. Obviously considerable caution is appropriate here, but not despair; the Esquiline Wing in isolation is also extremely interesting and informative, telling us a lot about Neronian architectural tastes and the history of Roman architecture, even if its relationship to ancient literature is tenuous. More important, although ancient literary sources tell us nothing specific about the Esquiline Wing, they do give us a solid sense of the pre-Neronian architectural chronology of this whole area, plus the major phases of Nero's palace projects and at least some later activity related to the Domus Aurea. In addition, the Esquiline Wing is a large sample, retaining some 150 rooms for study, buried in the substructures of Trajan's Baths on the Esquiline (Fig. 2).¹⁸ In a remnant this significant, we might well expect to find evidence for the overall chronology of Nero's palace projects, including what came before and after. In the event, this is exactly what we find.

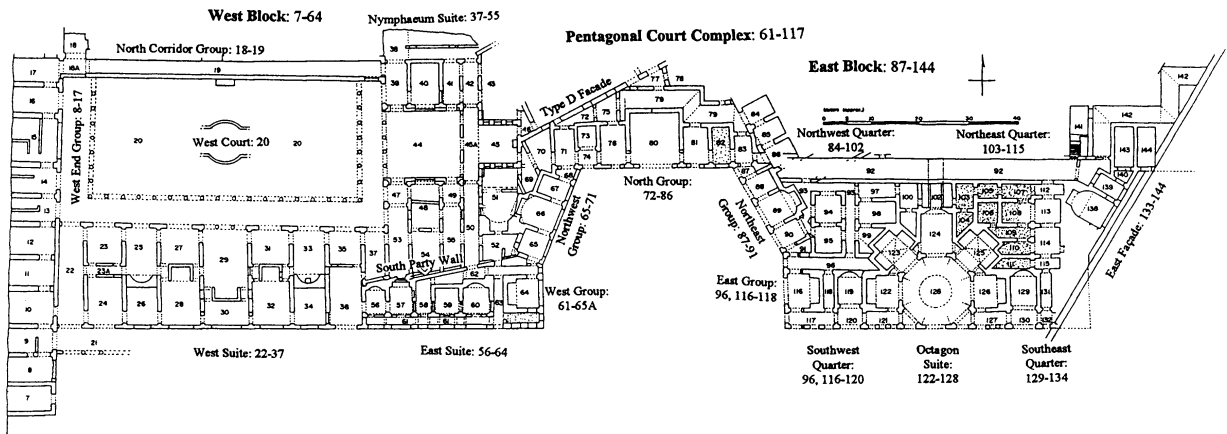
The ancient literary sources are just as vague about Nero's architects. Tacitus names them for us: Severus and Celer.¹⁹ His ambiguous wording can be interpreted as suggesting a division of labor between the two, one being the architect (designer) and the other the engineer, or else both could have served both functions. It has become conventional to refer to Severus as the designer of the Esquiline Wing, but in fact this is speculative. Study of the masonry in the Esquiline Wing adds no new information that would help us sort out this issue, with just one exception: there is only one 'persona' involved in the design and construction of

the Esquiline Wing, consistently expressed in all Neronian parts of the building in both Neronian phases. The complexities in the masonry are not the result of two separate designers working on different tasks or independently designing separate areas. Indeed, detailed study of the masonry sheds some light on issues of architectural creativity, or revolution, and especially on the steps by which Nero's architects arrived at their novel ideas. The evidence for this is voluminous, as indicated in Chapters 2–5 and its implications are discussed in Chapter 6.3. For now, the point is that it is fruitless to try to distinguish between the contributions of Severus and Celer, whether their duties were separate, as designer and engineer, or they were a flawlessly blended team. I therefore treat the architects in as neutral a manner as possible, citing both, or simply “Nero's architects”, when I need to discuss issues of architectural design, vision, creativity or fantasy.

2. THE KEY FEATURES OF THE ESQUILINE WING

The importance of the Esquiline Wing for the history of Roman architecture is clearly established. Its architectural design has been carefully studied and its key features widely recognized.²⁰ The following description is illustrated by Figures 3–5.²¹

The Esquiline Wing was terraced into the crown of the Oppian Ridge, whose flanks descended steeply in this area. The south façade of the Esquiline Wing opened to the valley to the south (Figs. 1, 3 and 5), which would have given a fine view over the roofs of the city below when the project was started in the Domus Transitoria phase and then a view across the parklands in the Domus Aurea phase. The north side was sunk into the terrace cutting, with the room vaults crowning at the ground level of the Oppian Ridge behind them. The northern edges and the far west end are terrace retaining walls (the north sides of Corridors 19, 92, 79 and 142 and Staircase 38. See also Figure 4, where the whole retaining wall is highlighted). The Esquiline hill was heavily built up before Nero, so in fact to the north of these terrace retaining walls there are earlier architectural remnants filled in with soil and rubble rather than the soil of the Esquiline itself.²² The wall forming the north sides of Rooms 70, 72, 75, 77, and 78; the back walls of Rooms 84–86; and the north and west sides of Room 141 are all remnants of earlier structures that originally had other rooms behind them. The fact that these areas all became terrace retaining walls in the Neronian project is emphasized by the fact that they are all essentially *cryptoportici*, which not only serve obvious practical functions, but also isolate the rest of the rooms from the dank environment adjacent to the terrace fill.



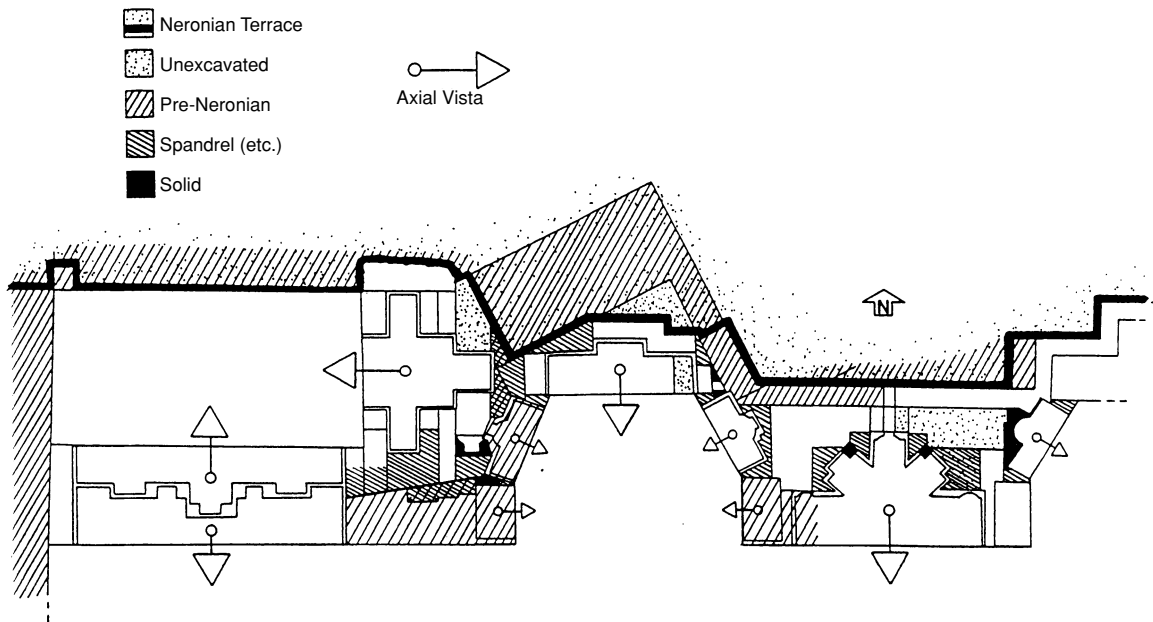
3. Esquiline Wing: Plan with the blocks, groups and suites labeled.

On the other hand, these retaining walls introduce, for the first time, a key design practice of Severus and Celer; they were extremely efficient. That is, the architects never built anything they did not have to, never replacing anything that already existed in a satisfactory form. Reusing earlier terrace retaining walls, or earlier buildings filled in to serve the same function, is an obvious thing to do, but Severus and Celer also reused earlier remnants much more creatively, as I discuss later.

Panella's recent excavations in the area of the Arch of Constantine have demonstrated that there had been a complex pre-Neronian urban setting in the area in front of the Esquiline Wing, including numerous buildings and at least five major roadways.²³ When these were swept away by the great fire the whole valley was filled in with rubble up to four meters deep. Panella confirms that the artificial lake noted by Suetonius was in the area of the Colosseum, albeit smaller than the amphitheatre and of strangely formal design. There are also remnants of the Neronian garden follies surrounding the lake, providing the Esquiline Wing with a vista to the south and southwest. The Esquiline Wing did not face the lake directly, however.

After Nero, the Esquiline Wing was buried within the substructures of the Baths of Trajan following another great fire in A.D. 104. The walls and vaults of the Esquiline Wing were reused by Trajan's engineers to supplement their own foundations. Wherever the Esquiline Wing had a large, open space, Trajanic foundations subdivided it into long, parallel rooms, easily vaulted to make a sturdy platform (compare Figs. 2 and 3).

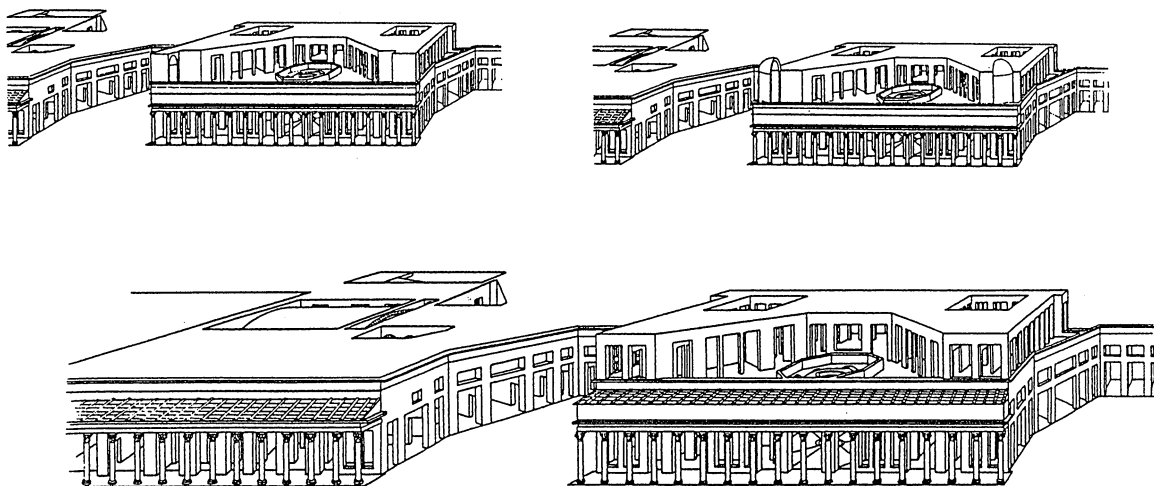
The Trajanic subdivision of the major spaces distorts one of the most important aesthetic features of the Esquiline Wing, the fact that it consists mostly of



4. Esquiline Wing: Schematic plan highlighting symmetrical groups with their axial vistas, the spandrels between them, large areas of solid masonry and the terrace retaining wall.

symmetrical suites of rooms with their axes of symmetry pointing towards grand, spacious vistas. The most important of these vistas are marked in Figure 4. In most instances the central room of each suite is larger and fancier than the flanking rooms, commonly with a colonnade or several large windows and doorways at the end of the room with the vista (e.g., Rooms 29 and 44 with colonnades and Rooms 80 and 128 with large doorways). The Trajanic foundations divide all of these vistas into long, thin tubes of space, turning the original bright, airy Neronian design into a dark and claustrophobic experience. A visitor to the Esquiline Wing must therefore exercise considerable imagination to get any sense of the original aesthetics, but Severus and Celer's intentions are easy to see in plan (Fig. 4). In addition to the parklands to the south, there were also vistas across both axes of a great rectangular courtyard in the west (20), which provided the visual focal point for the major rooms of the West Block (Rooms 29 and 44).

The largest-scale features of the Esquiline Wing are the West Block and East Block, separated by the Pentagonal Court in the middle (Fig. 3). The West Block had an upper story at least at its east end, accessible via a grand staircase (Room 38), although the upper story has never been excavated. The *piano nobile* of the East Block was excavated by Fabbrini (Fig. 5).²⁴ This was lightly constructed, probably



5. Esquiline Wing: Perspectival reconstruction, based on Fabbrini's discoveries in the *piano nobile*. The main view is based on the presumption that the intrusive curved wall in the southwest corner (Fig. 70) is not original. If the curved wall is original, then it could be the basis for apsidal elements of the sort reconstructed in the two smaller versions above.

trabeated, with a triangular open veranda surrounding the octagonal Room 128 below. The whole *piano nobile* ensemble is obviously a belvedere, with colonnades and large windows opening in all directions. This includes a colonnade across the entire north side, next to an ornate, long, thin pool that was also the water source for a cascading fountain in Corridor 92 and Room 102 below. The extent of the northern vista cannot be reconstructed, but because the *piano nobile* clearly faced towards something to the north, we know that the terrace retaining wall for the East Block is not the northernmost extent of the Domus Aurea.²⁵ Access to the upper story of the East Block was via a staircase in Room 141, but this was so small and tortuous, and probably dark, that one presumes it was more suitable for the service staff. The staircase in Room 38 was much grander and brighter, and less steep, more obviously intended for Nero and probably serving the entire Esquiline Wing. Given the location of the main staircase (38) and the known *piano nobile* of the East Block, a second story along at least the north of the Pentagonal Court between them is also likely.

The Pentagonal Court is the most prominent and distinctive exterior feature of the Esquiline Wing. Because it is open along its long south side, the Pentagonal Court is not actually an enclosed courtyard at all, and if it were, it would have more than five sides. The name is appropriate in a study of the masonry, however, because the feature in question has five built sides that need to be explained, while

its sense of enclosure is close enough to a true courtyard for the name to make sense.

There was a colonnade across the south façade of the West Block. Fabbrini reports that there was also a colonnade across the façade of the East Block, different from the West Block colonnade in that it had a barrel vault instead of beams.²⁶ The fact that the two façade colonnades were structurally different from each other suggests that they were separate (i.e., that there was not a colonnade continuing across the south side of the Pentagonal Court), although the archaeological evidence in that area awaits excavation. Figure 5 reconstructs what we currently know about the colonnade, with the caveat that the number and spacing of the East Block colonnade remain speculative.

The major blocks of the Esquiline Wing are divided into the suites with axial vistas that I have already described. Between these are numerous lesser rooms that can be ignored for the time being, because they are essentially spandrels left between the larger groups. In the masonry explications of Chapters 2–5, however, the spandrels are of considerable interest because they tend to be where construction or design phases intersect, providing the most useful information on the overall masonry chronology.

I find it much easier to discuss the Esquiline Wing if the principal suites of rooms are given names rather than lists of numbers. These are labeled in Figure 3.²⁷

In the West Block, the Neronian groups of rooms are called suites. These include the West Suite (Rooms 22–36) and the Nymphaeum Suite (Rooms 37–55), which form, respectively, the south side and east end of the West Court (20). These two suites and the West Court comprise more than 80 percent of the plan area of the West Block, giving some sense of how predominant the Neronian component is in the West Block (see Fig. 29). In addition, the West Block has the West End Group, Rooms 7–17, a pre-Neronian line of rooms at the far west end of the Esquiline Wing, and the North Corridor Group (Rooms 18 and 18A and Corridor 19), which is primarily of pre-Neronian date as well (Fig. 6, Chapter 2.1). The East Suite (Rooms 56–64) is a small pre-Neronian group that contributes little to the West Block but was retained because it provided useful rooms that could be made into the Pentagonal Court (Fig. 11, Chapter 3.3).

The Pentagonal Court is a relatively simple design in its Neronian conception, consisting of five major groups of rooms that I name according to compass orientation. These are the Southwest Group (Rooms 62–64), the Northwest Group (Rooms 65–70), the North Group (Rooms 71–82), the Northeast Group (Rooms 83–91) and the Southeast Group (Corridor 96 and Rooms 116–119). The masonry chronology in the Pentagonal Court is convoluted, however, especially where

pre-Neronian masonry intersects the Neronian design. Detailed description of these complications is necessary in Chapter 3, but they do not complicate the division of the Neronian Pentagonal Court into its constituent groups. The fact that the Southwest and Southeast Groups are also parts of the West and East Blocks, respectively, also creates some complications in terminology (these are, respectively, the East Suite in the West Block and the Southwest Quarter of the East Block), but these complexities are solved by treating the masonry in chronological order and discussing each topographical segment of the building only once. Thus, although the main discussion of the West Block is in Chapter 4 and the main discussion of the East Block is in Chapter 5, I describe their pre-Neronian portions in Chapter 3.

The East Block is the most complex design in the Esquiline Wing, but its division into groups is simple. In its Neronian conception, the East Block consists of just one major design, the Octagon Suite (Rooms 122–128), forming the axial core of the whole East Block. Everything else was tucked in around the Octagon Suite as best it could. There are five other sections of the East Block. The North Corridor Group consists of Corridors 91 and 142 and Room 141. This retains several important pre-Neronian remnants and is therefore described in Chapter 3.3. The Northwest Quarter is Rooms 87–91 and 93–101. Most of this is of little consequence in the Neronian design (Rooms 97–101 especially), essentially a spandrel between the Octagon Suite and the Pentagonal Court. The Northwest Quarter therefore overlaps the Northwest Group of the Pentagonal Court in Rooms 87–91, described in Chapter 3.4. The Northeast Quarter is Rooms 103–115 and 136–140, analogous to the Northwest Quarter in that Rooms 103–115 were an insignificant spandrel, whereas Rooms 136–140 were important rooms facing outward the east. I do not discuss the latter, however, because they retain their Trajanic backfill and are therefore largely inaccessible. The Southwest Quarter in the East Block is Corridor 96 and Rooms 116–119, that is, the same thing as the Southeast Group in the Pentagonal Court, described in Chapter 3.3. The Southeast Quarter, finally, is Rooms 129–135. This is a purely Neronian segment, designed to be pendant to the largely pre-Neronian Southwest Quarter, with few masonry complications.

Because most of the easternmost edge of the East Block (Rooms 132–144) retains its Trajanic backfill, there is little to be learned from it and it is therefore not treated separately here, nor is it given independent group names analogous to the similar parts of the Pentagonal Court. What masonry evidence there is indicates no complexities, apparently all bonding together with the Neronian masonry of the rest of the East Block. The design corresponds with this chronology, being essentially symmetrical with the west side of the East Block. Although this makes enough sense in its own right, Fabbrini has also suggested that there may have

been a second, eastern pentagonal court, of which this would be the west side.²⁸ Fabbrini also suggests a third major block of rooms beyond the second pentagonal courts, pendant to the standing West Block. If there were such a thing, then the axis of symmetry through the Octagon Suite would also be the central axis for a vast complex in three major blocks, articulated by two pentagonal courts.

Sadly, although this theory is appealingly grand, it is also improbable. The area east of the East Block is outside the perimeter of the platform for the Baths of Trajan, an area that was apparently swept clear of Neronian evidence, but de Romanis shows what was known about ancient remains east of the Esquiline Wing as of 1822, indicated in my Figure 2.²⁹ No substantial new information has been added since, and certainly no credible trace has been found of a second pentagonal court. This is an important point because the configuration of the walls shown by de Romanis responds to the axis of the Esquiline Wing, not to the axis of the Baths of Trajan. This suggests that they are Neronian or Flavian, but in any case based on the urbanistic situation of the Oppian ridge as it existed in Neronian times. If those remains are Neronian or earlier, then they definitely *preclude* a second pentagonal court; that is, their design is not compatible with such a thing. The second pentagonal court can only be an attractive hypothesis, therefore, but it is also a dubious one.³⁰

We do not know the intended function of any room in the Esquiline Wing. Some guesses are better than others, of course; for example, the Octagon Suite could well have been a banquet hall, and some of the intentionally isolated rooms in the West Block (e.g., Rooms 34 and 59) may have served as bedrooms. Ultimately we do not know. The point is important because the intended use of the rooms has obvious bearing on the design. The West Block was undoubtedly intended for something different from the East Block. This is evident not only from the design of the rooms, but also from the fact that the West Block was decorated differently from the East Block (discussed later). Complex issues of masonry chronology may have some bearing on the differences between the decoration of the East and West Blocks, but the use of the rooms may just as readily explain the differences. If this is the case, then we are simply unable to reconstruct the rationale behind some of the key decisions concerning design and decoration.

Finally, I should explain my strategy for describing the masonry itself (Chapters 2–5). The masonry chronology of the Esquiline Wing is of vital archaeological significance, but the evidence is vast – as well as being an exquisite mess. Precious few readers will have either the need or the patience to read a comprehensive description of it, and I do not propose to provide such a thing here. My dissertation already provides a complete description.³¹ It is unsparing in its detail, arranged

in topographic order, room by room. It includes my *modus operandi* on site, complete descriptions of each masonry type and photos of every wall and vault in every room. Because that resource already exists for the scholar specifically devoted to the Esquiline Wing, I do not recapitulate its degree of detail here. That does not mean I can leave out the masonry complexities in Chapters 2–5, but it does mean I can concentrate on the masonry complexities that have important implications, especially areas where modern scholarly controversy requires that I prove my points conclusively. These are plentiful, most notably the masonry sequence in the Pentagonal Court (Chapter 3) and the two Neronian phases in the West Block (Chapter 4). In contrast, it may appear that I am giving short shrift to the masonry evidence in important parts of the Esquiline Wing. This is true and, ironically, it includes the most famous: the Neronian parts of the Pentagonal Court and the Octagon Suite. They do not require detailed description because their masonry evidence is clear and their Neronian date quickly established beyond any doubt.

3. THE MAIN MASONRY TYPES IN THE ESQUILINE WING

All Neronian masonry in the Esquiline Wing is *opus testaceum*, as are most of the non-Neronian masonry types. I have described these in detail elsewhere,³² but an understanding of the main types and their chronological phases is needed to understand Chapters 2 through 5. Nearly all of these masonry types fit under the rubric of *III Periodo* in Lugli's catalogue, so Lugli's broadly worded masonry definitions do not distinguish among them.³³ I divide the overall masonry chronology into five main phases, of which the Neronian components (phases 3 and 4) comprise more than 80 percent of the Esquiline Wing.

Phase 1 encompasses distantly pre-Neronian, construction projects with at least one substantial later project between them and the first Neronian phase. Distantly pre-Neronian projects contribute relatively little to the Esquiline Wing, but include remnants from two substantial buildings (Fig. 6). These are the West End Group, a pre-*III Periodo* fabric called Type A, and an obliquely oriented building at the north end of the Pentagonal Court, in a *III Periodo* fabric that I call Type D. I do not assign the Type D complex a name because, during the Neronian period, it was mostly filled in to serve as a terrace retaining wall and therefore contributed little to the Neronian design.³⁴ The most exceptional distantly pre-Neronian remnant is Type X, an illegible fabric (lacking most of its facing bricks) in the Northwest Group and North Group of the Pentagonal Court (Fig. 11). Type X contributed

Rooms 65–68 and Rooms 73–76, which were clearly important to Nero’s design, but which also have at least two intervening pre-Neronian phases.

Phase 2 encompasses closely pre-Neronian projects, with no phase intervening between them and Nero. These are the most controversial masonry types in this study because they require some revision of our thinking about the Esquiline Wing. As with the distantly pre-Neronian projects, most of the closely pre-Neronian projects contribute little to the Neronian design of the Esquiline Wing, and none contributes more than a handful of rooms. The masonry evidence is clear, however, and the non-Neronian origin of these rooms is incontrovertible. Remnants from closely pre-Neronian buildings contributed several features to the Esquiline Wing that are famous and usually regarded as Neronian. They are indeed Neronian in use, and their final design in the Neronian period is usually different from their original form, but the closely pre-Neronian projects introduce one of the most important features of the architects’ aesthetic personae: their ability to make completely new things from already existing forms. For the most part, Nero’s architects swept away the pre-Neronian remains, designing their own building from scratch, but when a standing form could be of use to them, they cleverly incorporated the remnant into their own design.

The closely pre-Neronian projects may be from one or many projects (Fig. 11). They include parts of the two great *cryptoportici*, including half of the north side of Corridor 19 and both the north side and some of the western end (both sides) of Corridor 92. The most important closely pre-Neronian fabric is in the area of the Pentagonal Court, in the form of Type C. Type C is a rather coarse *III Periodo* fabric forming the Southwest and Southeast Groups of the Pentagonal Court. The Type C contribution to the Pentagonal Court makes Chapter 3.3 one of the chronological cruxes of this monograph.

Phase 3 is Neronian Phase 1 (Fig. 29). The masonry is Type E, a *III Periodo* fabric of high quality and density, carefully assembled according to a well-organized plan. The masonry evidence for Type E is discussed in detail in Chapter 4, but because this is both chronologically and aesthetically a crucial phase, a brief synopsis will serve for now. Type E is the first Neronian phase, clearly supplanted by the second Neronian phase (Type F). This two-phased chronology corresponds perfectly with the literary tradition concerning Nero’s palace projects, that is, Type E corresponds to the Domus Transitoria. It is not the description of Type E masonry that makes the equation between it and the Domus Transitoria, however. Rather, it is a matter of how all of the masonry phases relate to each other and, *mirabile dictu*, match the phases described in the extensive ancient literature concerning both

the Neronian palaces and architecture of other periods in this area, both before and after Nero. Much other evidence confirms the equation of Type E with the Domus Transitoria; none contradicts it. Neronian phase 1 is the first masonry phase in which the architects were clearly designing a palatial residence, albeit not yet in the setting of the later parklands. The palatial features include interesting design features in the rooms, large room sizes, fine courtyards and gardens, clever lighting effects, colonnades and vistas. Every previous design was markedly banal in comparison. The Neronian phase 1 Type E contribution is entirely in the West Block, consisting of the West Suite and the Nymphaeum Suite as originally designed. Both were then repaired and modified in Neronian phase 2.

Neronian phase 1 contributes two crucial facts to our understanding of the Neronian chronology and design history. First, the whole Type E project was completed, exactly as designed, up to and including the vaults. During construction, there were no *pentimenti* of any sort.³⁵ Second, the Neronian masons had methods for making the entire Type E project bond together. These are described in Chapter 4, but it is worth noting here that the result for a modern scholar is absolute certitude. There is not the slightest ambiguity about the nature or extent of Neronian phase 1. It is all obviously integral, and the whole design was completed exactly as planned.

Phase 4 is Neronian phase 2, the Domus Aurea, built after the great fire of A.D. 64. Like Neronian phase 1, the masonry description of Neronian phase 2 does not date the phase, but rather it is the position of Neronian phase 2 in the overall chronology of the site that identifies this as the Domus Aurea phase. Neronian phase 2 has several masonry types, but Type F is predominant. This is the basic *III Periodo* fabric used for most normal purposes. In most respects Type F is identical to Type E, but slightly coarser, with marginally fatter bricks and a bit less carefully assembled. Type F serves three main functions. First, it was used to repair the damaged parts of the Phase 1 in the West Suite. Second, Type F was used to make a number of design revisions in both the West Suite and the Nymphaeum Suite, after the damage to phase 1 had been repaired. Third, Type F was used to construct new components of the Esquiline Wing from scratch. These include the Neronian parts of the Pentagonal Court (completing the design and creating the motif for the first time) and the entire East Block, including the Octagon Suite, save for the small Type C remnant in the Southwest Quarter (Fig. 69). Neronian phase 2 also includes Type G masonry, a specialized fabric with very small bricks, which served to execute complex shapes. This is a small contribution, limited to only two passages in Room 51. Finally, Neronian phase 2 also included a number of

small revisions in the West Block, consisting mostly of doorways that were filled in to create privacy in some rooms, to block drafts, and so forth. The masonry is of low quality, appropriate for non-load-bearing door fill that would be hidden from view by the Neronian phase 2 decoration scheme. The decoration, of course, dates these revisions, which the nondescript masonry otherwise would not do. Notably, these revisions are found exclusively in the West Block and Pentagonal Court areas, but there are none in the Octagon Suite. That is, the Neronian phase 2 revisions were applied only to earlier masonry, whereas Neronian phase 2 itself was simply constructed as originally designed and never revised.

Phase 5, post-Neronian fabrics, could be divided into two steps, the immediately post-Neronian and the distantly post-Neronian, but the latter is of no concern here, consisting of the Trajanic burial of the Esquiline Wing to make it into foundations for the Baths of Trajan. Because this is not an occupation phase at all, its design features are of no consequence for the Esquiline Wing.

The immediately post-Neronian masonry does relate to occupation phases, however, and their contribution to the Esquiline Wing is twofold. First, Type L, a *IV Periodo* fabric, is visually distinctive and clearly post-Neronian.³⁶ This is found in just one reliably identifiable location: the wall separating Rooms 44 and 45 in the Nymphaeum Suite, replacing the Neronian colonnade that had been there previously. The location of Type L is crucial, being incontrovertibly later than both Neronian phases. Even more important, the fancy grotto decoration of Room 44 passes onto the Type L masonry. Type L represents an indubitable example of a post-Neronian emperor inhabiting and grandly redecorating the Esquiline Wing. This, too, is specified in the literary evidence; Otho not only inhabited the building, but also spent a great deal of money on it.³⁷ The fact that Type L is evidence for just such a phase in the Esquiline Wing is therefore welcome – and entirely in concert with the two Neronian phases.

Second, there are several passages in the Esquiline Wing where rooms were converted for lowly functions, such as storage, slave quarters or gladiators' barracks. These revisions cannot always be dated with precision and probably represent many minor projects spanning from Nero to Trajan. The most common evidence is for inserted mezzanines, with upper-level doorways to accommodate them and staircases rising from below. In all such instances, some crude decoration was applied to the walls as well. This decoration, plus graffiti and a few telling finds from the original excavations, prove that these lowly revisions were intended for human habitation, albeit not voluntary habitation in all likelihood.³⁸ The masonry related to these projects is invariably crude, and in both the West End Group and around the Pentagonal Court it is *opus mixtum*, the only examples of that fabric in

the Esquiline Wing. There are no examples of this sort of crude reuse in the East Block.

4. A SURVEY OF THE DECORATION IN THE ESQUILINE WING

The decoration in the Esquiline contributes little to our understanding of the masonry, so it is generally not a component of this study.³⁹ Chronologically significant decorative details are discussed as needed in Chapters 2–6, but in most respects a simple description here of the decoration schemes in the Esquiline Wing will serve. Sadly, the decoration program is difficult for a modern viewer to reconstruct. The vast expanses of revetment were systematically spoliated, leaving only the encrusted bedding mortar, if anything. What few frescoes remain are generally in ruinous condition, with just enough surviving – either now or in previous centuries – for a description to be possible.

Few pre-Neronian decorative remnants are identifiable in the Esquiline Wing, and those are usually in inconsequential locations, always in a context where the pre-Neronian date of the masonry is certain. They are:

1) The pre-Neronian Type A masonry of the West End Group, including the Type A west half of Corridor 19's north side, was prepared for a revetment dado. The revetment preparation is, in fact, the only identifiably pre-Neronian remnant, and it is not certain whether the revetment was ever applied. The low-quality frescoes on the Type A walls now are either of Neronian date or later, supplanting the original decoration of the Type A project.

2) A remnant of pre-Neronian fresco, possibly Pompeian third style, was retained on the north side retaining wall of Staircase 38. This was pinned in place by a Neronian wall that was built up to the north side of the pre-Neronian room when it was converted into the grand Neronian staircase.

3) The northeast side of Room 46 is part of the pre-Neronian Type D project and was decorated in a fourth style scheme. As was the case in Staircase 38, the Neronian masonry at the north end of Room 46 was simply built up to this earlier fresco surface, pinning it in place and proving that both the Type D wall and its decoration are of pre-Neronian date.

4) Room 70 has a fourth style fresco scheme that is considerably heavier in its architectural elements than the Neronian norm, painted above a revetment dado similar to Neronian practice.⁴⁰ The masonry is all pre-Neronian, so a pre-Neronian date for this exceptional scheme is a reasonable possibility, probably contemporary

with the indubitably pre-Neronian frescoes of Room 46. The style is apparently similar to Room 46 too, but the sample in Room 46 is too small to demonstrate the point conclusively. The masonry chronology, decoration and usage patterns in this area (Rooms 69–71) are all complex and anomalous, however, so this decoration scheme remains controversial.

5) A fine geometric mosaic or *opus sectile* floor was applied to Room 73. This was subsequently spoliated, so it cannot be described in detail, but it was of a non-Neronian pattern. The rest of the decoration in that area is Neronian, however.

6) Most important of all, the pre-Neronian Type C masonry of Rooms 116–119 had a fine third style program that remains intact in Room 116, along with a geometric black-and-white mosaic floor (again, contrary to Neronian usage). In Rooms 117–119 the Neronian fourth style frescoes were applied on top of the pre-Neronian third style, but some have fallen away in the conch of Room 119 to reveal a remnant from the earlier scheme there too. In Room 116 the upper register of the third style is black ground, and the main register below it is a lighter color that is no longer reliably identifiable.

As those six items demonstrate, the pre-Neronian contribution to the decoration of the Esquiline Wing was miniscule, and only once is it found in a room that Nero would use for any length of time (Room 116). Nearly all other significant decoration in the Esquiline Wing is Neronian phase 2, with just two exceptions. These are a Neronian phase 1 remnant on the east end of Room 45 and the Othonian decoration scheme related to the Type L wall between Rooms 44 and 45. The important implications of these exceptional passages are described in detail in Chapter 4.3.

The Neronian phase 2 decoration is the main scheme applied throughout the Esquiline Wing. In general, the style was rather elaborate, but also quite delicate by ancient standards. The Neronian period frescoes are all of the Pompeian fourth style, but they vary in quality, elaboration and color according to the architectural setting. Rooms of similar function were usually decorated as groups, with the consistent application of just one scheme throughout the group. In some instances this even included consistent coloration. The phase 2 date is unambiguous in every location throughout the Esquiline Wing, that is, there is always some Neronian phase 2 masonry to which it is applied regardless of the earlier masonry types also involved.

The simplest Neronian fresco scheme was applied in the numerous service passageways, such as Corridors 19, 79, 92 and 142, and in rooms not intended for extended occupation by Nero (e.g., Rooms 84–86, 94–95, 112–115, 131 and 132).

Room 114 retains the best-preserved example, also the most typical in that it lacks any revetment. Nero's experience of these rooms would have been fleeting, so no better decoration was needed. The scheme is a rather gossamer white-ground fourth style, executed quickly by skilled painters. The illusionistic vistas penetrating the wall surface are generally few and small, leaving an impression similar to third style. The fact that most of the decorative motifs are similar to third style heightens this impression (candelabra, small *pinakes*, festoons, reedlike columns, etc.). This simple fresco scheme is sometimes associated with a dado, usually in the form of a thick layer of yellow-ground frescoes standing somewhat farther out from the wall surface than the white-ground fourth style above. This yellow-ground dado is commonly decorated with red elements, usually too badly preserved to reconstruct the motif. Good examples of yellow-ground dados appear in Rooms 72 and 75, Corridors 50 and 79, and even spiraling up the ramps of Staircase 38. In exceptional cases the dado was applied in real revetment (e.g., Room 69), although in many instances there is not a separate dado at all (Corridors 19 and 92).

The decoration for fine rooms that Nero certainly would have used is consistent in general terms, but each major group of rooms has its own distinctive scheme. The most important areas are the West Suite, the northern three sides of the Pentagonal Court and the Octagon Suite. The Nymphaeum Suite was undoubtedly a similar core group, but because the main rooms were redecorated after Nero, it is difficult to reconstruct the Neronian scheme. Limited evidence from the peripheral rooms (41, 42 and 50) bespeaks a design similar to the West Suite, however. Each of these groups had at least one grand showcase room in the center – Room 29 in the West Suite, Room 80 in the Pentagonal Court and Room 128 (the octagonal rotunda) in the Octagon Suite. In Rooms 29 and 80 the decoration is a grander version of the scheme throughout the rest of their respective groups, whereas the Octagon Suite, predictably, was decorated in a unique scheme. The basic motifs in all of these schemes are revetment socles and dados, which reach higher in the wall as rooms grow in significance. Above the revetment there is an architectural register in illusionistic fourth style frescoes elaborated with relief stucco. The vaults, too, are elaborated with relief stucco forming frames with frescoes in them. Given this group of common elements, then, their overall arrangement varies from one section to the next.

The decorative scheme in the West Suite is generally the simplest. The socle and dado were usually low, ca. 1.5 m, but higher in grander rooms and reaching all the way to the springing line of the vault in Room 29. There is some variation from room to room as far as the frescos above the dado are concerned, but all are fourth style, with just one prevailing ground color for the whole room, red, black and

white being the most common.⁴¹ The north-facing rooms tend to be of darker colors, and south-facing rooms tend to be white ground. Slender colonettes and moldings were provided in relief stucco, albeit sparingly and widely spaced. These appear at the edges of large panels in the frescoes, as cornices at the springing lines of the vaults and as moldings around windows. The fresco panels were also framed with more complex painted motifs, including *rinceaux* and meanders. This simple and delicate relief stucco was commonly applied to the vault decoration too, dividing the surface into repeated geometric shapes of various sorts (with variation from room to room a distinctive feature). Room 29 had a more elaborate version of the same motif in its vault, which is the only fourth style in the room, retaining the simple and light relief stucco, but also with fairly elaborate framing elements added in fresco and fourth style figures and vignettes floating in the panels. It is certainly the grandest vault decoration in the West Suite, but the larger vaults of the Pentagonal Court and East Block are considerably more elaborate.

The decoration of the large rooms surrounding the Pentagonal Court (excluding the showcase decoration in Room 80) is more complex, but also rather poorly preserved. The best examples are in Rooms 74, 76 and 81, with just enough fragmentary evidence to prove that this was a consistent motif throughout the Northwest Group (Rooms 65–68), North Group (Rooms 73–76 and 81) and Northeast Group (Rooms 83 and 86–91). The revetment dado in the Pentagonal Court was higher than in corresponding rooms of the West Suite, at least to lintel level in the smaller rooms (ca. 2 m) and up to ca. 3 m in Rooms 76 and 81. The walls above were decorated in fourth style with relief stucco in much more elaborate and delicate patterns than in the West Suite. These include both framing elements and perspectival *exedrae*, tripods, etc. Nowhere is the ground color reliably preserved, but the decorative details were colored very loudly indeed, with turquoise (possibly an oxidized relic of a different original color), bright orange, blue, deep red (probably cinnabar) and yellow. No vault decoration is preserved in these rooms, except for Room 80. Room 80, then, is the showpiece, the famous *sala della volta dorata*.⁴² Similar to Room 29, Room 80 had revetment all the way to the springing line of the vault. The outer edges of the vault had a decorative register of ca. 1.5 m, whose scheme is entirely lost. A colorful relief stucco scheme as in Rooms 76 and 81 is the best likelihood for this location, but because Room 44 and the rotunda (Room 128) have mosaics at this level, this, too, is a possibility. The crown of the vault had heavy and elaborate frames in relief stucco, colorfully painted, with fresco *pinakes* in them.

The exterior walls of the Pentagonal Court were decorated in a somewhat more elaborate version of this scheme as well, including several additional registers, one with landscape paintings, abundant relief stucco and large travertine corbels high in

the walls. It is a busy scheme, with myriad small motifs that largely ignore the much grander and simpler architectural features. Modern aesthetic sensibilities tend to appreciate the large, simple architectural shapes in the Pentagonal Court, so it is interesting to see that the decoration scheme is at odds with this.

There are two schemes in the East Block, the simpler of which is found in the rooms facing outward around the perimeter. Rooms 118, 119 and 129 are the preserved examples, with only Room 119 in good condition. The revetment dados are high again, to ca. 3 m, above the lintels of the large doorways. Above this is a small register of frescos, ca. 1.5 m, below the springing line of the vault. The corners of the rooms at this level are articulated by rather substantial Corinthian pilasters in relief stucco, and the rest of the register is an elaborate filigree fourth style theatrical architectural scheme in relief stucco and illusionistic frescoes. The ground color is white where it can be identified. This architectural register is liberally inhabited by small figures, with lifelike coloration (i.e., not faux statues in *grisailles*), and myriad other decorative details. The vault decoration is similar to the *volta dorata* of Room 80, including the elaborate frames and fresco *pinakes*, albeit more delicately conceived and executed.

The second Neronian scheme in the East Block is central showpiece, the Octagon Suite. The decoration is suitably splendid but of little chronological significance, that is, both the masonry and decoration are Neronian phase 2, with no complications of any sort. The rooms were reveted to the springing line of their vaults, including the lintels in Room 128. Room 128 also had pilaster strips on the corner piers. The vault decoration is poorly preserved, but the dome itself had glass mosaics, some tesserae of which remained in the mud floor when I studied the building.⁴³ Room 123 also retains relief stucco and frescoes in its lower side vaults, albeit in a scheme unlike any other room in the Esquiline Wing.

Post-Neronian decoration is of just two types: the grotto motif of Othonian date in Rooms 44 and 45 and low-quality, white-ground frescoes in the areas where rooms were given over to lowly functions. The Othonian grotto motif is adequately described elsewhere⁴⁴ and concerns me in only two ways. First, it is definitely of immediately post-Neronian date because, in Room 44, it runs onto the Type L masonry between Rooms 44 and 45. Second, conversely, it is not clear how much of the grotto motif, or other features of the decoration in Rooms 44 and 45, were held over from Neronian phase 2. This is a problematic situation as far as decoration is concerned, but one that has no bearing on the masonry chronology. That is, we require evidence only to demonstrate the fact that post-Neronian Type L was grandly decorated, proving that Type L was intended for a palace rather than for slave quarters. The decoration evidence achieves this, if little else.

As for the lowly post-Neronian decoration, it is all white-ground fourth style of indifferent quality and several styles, indicating numerous separate small projects. Because most of these decorative revisions are from a period when the Esquiline Wing no longer served as a palace, they bear scant relationship to the architectural design.

5. ROMAN CONCRETE AND THE DESIGN OF THE ESQUILINE WING

As an example of Nero's character, the Esquiline Wing would be little more than a curiosity. Architecturally, however, it is much more important than that, although the building has not always enjoyed this scholarly status, particularly because only the West Block and parts of the Pentagonal Court were excavated before the twentieth century.⁴⁵ Prior to the excavation of the East Block, the most interesting feature was the frescoes, while the West Block's simple, rectangular rooms – all longitudinally barrel vaulted – elicited little comment in architectural scholarship. Nor did they deserve it; the tremendous importance of the Esquiline Wing as far as the history of architectural design is concerned is manifested primarily in the features of the Octagon Suite. That is the case *prima facie*, at least, and it is certainly valid that modern scholarship on the Esquiline Wing focuses on the influence the Octagon Suite had both on subsequent Roman designs and on the aesthetic values of subsequent architects. But there is also more. The Octagon Suite does not exist solely as an architectural design in a wasteland free of archaeological evidence; it merely appears to be so because its design is so much more radical than anything before it in Greek or Roman architecture – or than any design motif elsewhere in the Esquiline Wing itself.

In this respect the Octagon Suite is crucial, not just because it was complex and challenging to build, but also because its influence profoundly changed the history of Roman architecture. The concrete medium itself was not new under Nero, nor were most of the structural features of the Esquiline Wing inherently remarkable. The key change between late Republican or earlier Julio-Claudian concrete and the Esquiline Wing was the absolute confidence in the medium displayed in the latter. In other words, Neronian architects and engineers knew full well what could and could not be built, physically, which allowed them to concentrate exclusively on design issues. More to the point, and more in Neronian character, they could concentrate on thinking up completely novel designs, confident that the engineers and masons could execute them. It is this change in attitude, more

than any specific design feature, that constitutes the famous Neronian architectural revolution, as well as being Nero's most important contribution to the history of Western architecture in general.⁴⁶ It was a revolutionary step in classical antiquity, one of the most important stages in the slow process whereby the Romans weaned themselves from trabeated architecture, largely of Greek inspiration, to their own vaulted architecture in concrete.

This issue need not be discussed here in detail, both because it is not controversial and because MacDonald's synopsis of it remains valid.⁴⁷ On the other hand, because the Neronian architectural revolution consists more of architects' attitudes than of specific designs, there is certainly more to be learned from the Esquiline Wing than the existing studies have gleaned, based solely on architectural design. Most important, my study of the masonry chronology elucidates, in large part, how Severus and Celer arrived at many of their final designs, including the Octagon Suite. So, although I do not offer a fundamental reappraisal of the actual design of the Esquiline Wing, my study does provide a much clearer picture of the Neronian architectural revolution as an intellectual process, as an evolution rather than a momentous single step. For this we must study the Esquiline Wing in detail to see how the Octagon Suite is elucidated by its position in the overall masonry context, in which case it will be useful to introduce here some of the key features and issues that are important themes in later chapters.

The key issue, both for Nero's own tastes and for scholars of Roman architectural history, is novelty, indeed revolution. A good word needs to be put in for Nero at this point. Quite distinct from the long and horrible track record of art patronage by absolute despots, Nero was an enthusiastic innovator. If we value innovation, then an artist whose work was acceptable to Nero must be taken very seriously indeed; Nero's patronage is an imprimatur of creativity. He sought out the most creative talent and challenged his artists relentlessly to achieve the best they could imagine, unfettered by artistic *mos maiorum*. The discussion of Severus and Celer in ancient literature is couched in these terms, whether to praise or to damn them.

The Esquiline Wing is our best evidence for Nero's architectural revolution. Its revolutionary and experimental nature is manifested in several ways. In a positive light, the astonishing new motifs, brilliantly executed, represent Nero's lasting legacy for architectural history. Negatively, certain passages are awkward – in some cases awful – but also obviously experimental. Clearly both the architects and their patron were not averse to taking risks. As MacDonald notes in his post-Neronian chapters,⁴⁸ the Neronian achievement defined the questions and challenges which Roman architects would continue to address for centuries, but later architects would also move far beyond the Esquiline Wing, exploiting its successful motifs

while also making more harmonious combinations of them, eliminating the awkward passages, and so forth. The very fact that the Esquiline Wing manifests the problems that later architects would have to solve helps to set it into its revolutionary context. The Esquiline Wing was blazing a trail, which is much messier and more challenging than following in the trailblazer's footsteps.

Among the successful new ideas in the Esquiline Wing is the complex way in which multiple spaces are interwoven. This is one of the most important contributions of the concrete medium, indeed one of the most important changes in design philosophy that took place under Nero. Severus and Celer were designing the spaces of the rooms, leaving it to the masons and engineers to encase those voids with solids of concrete. The solids, then, could be any shape, sometimes convolutedly so, as long as the simply shaped spaces between them remained. Taking full advantage of the fact that vaulted concrete could be laid around the periphery of any shape they chose to design, Severus and Celer created an architecture of interior: the Esquiline Wing must be analyzed and appreciated according to how a viewer experiences the interior spaces and their relationships to each other. The Octagon Suite is certainly the most spectacular and successful example in this category, both because it is an impressive essay in concrete structure and because it is a splendid suite of spaces, cleverly lit and flowing into each other in wonderfully complex ways. It is a space that begs the viewer to move through it.

This is an important component of Severus and Celer's aesthetics. Their architecture required time and motion on the viewer's part, because the experience of the spaces changed according to how one moved through them. By extension, the fact that the appearance of the Octagon Suite, from any angle, invites the viewer to move around was undoubtedly intentional. Although my studies of the Esquiline Wing demonstrate that Severus and Celer were extraordinarily thoughtful designers, this is not the impact their architecture has on the visitor. Rather than seeming like an intellectual exercise, the Esquiline Wing is intended to appeal to the viewer emotionally, viscerally. Proportion does not strike the viewer as an issue that requires intellectual reflection, but lighting, dramatic views and overwhelming decoration all cry out for attention in the delicious ways that those design features always do. Given Nero's persona, this is not surprising, but then again ancient architecture, especially Greek, had never before been inspired by such a character. After Nero, the vast field of Roman architectural history has myriad variations on Roman concrete architecture, but even in its most intellectually oriented examples, post-Neronian Roman concrete architecture would always retain a component of emotional awe.

That is a fundamental intellectual sea change, and in the Esquiline Wing we witness the first, largest and most important step. Although the Octagon Suite is the most obvious example, and certainly the most important reason why the Esquiline Wing was influential later, it is also so salient that it tends to blind us to other related features in the Esquiline Wing. So, as undoubtedly the most important theme in this monograph, the reader should keep track of the aesthetic decisions made by Severus and Celer as the masonry is discussed in Chapters 2–5. These involve sizes and shapes of spaces (not their numerical proportions, but how spacious they feel, how their shapes direct the viewer's attention, etc.), their relationships to each other, lighting (especially) and the climatic ambience in both individual rooms and larger groups of them. This emotional and aesthetic emphasis was the core of the architects' thinking from the start, including not only how they designed their own building, but also how they reused and viscerally recast remnants from earlier buildings. Step by step, throughout the Esquiline Wing, we will see that Severus and Celer, probably with Nero's enthusiastic prodding, designed with gorgeousness and comfort as their goals, regardless of the limitations they faced at the beginning of the Domus Transitoria project.⁴⁹ Thereafter, they revised existing designs according to the same criteria, and, when the opportunity presented itself in the Domus Aurea stage, they designed from scratch, taking full advantage of all of their previous thinking and experience on site. The earliest steps in this process were simple and tentative, but it is also obvious that, throughout, there was just one overall design aesthetic for the Esquiline Wing, a single goal achieved with astonishing, truly revolutionary success. The steps leading up to that success are the key new contribution of my studies.

In sum, as the ancient literary sources demonstrate, novelty in pursuit of *luxuria* was the driving force behind Nero's architectural aesthetic, in which context it is difficult to imagine a greater success than the Esquiline Wing, especially the Octagon Suite. Clearly, too, this design was a gauntlet thrown at the feet of all subsequent Roman architects. They had a simple choice: either meet the standards set by the Octagon Suite or appear weak and unimaginative by comparison.

TWO



DISTANTLY PRE-NERONIAN PHASES

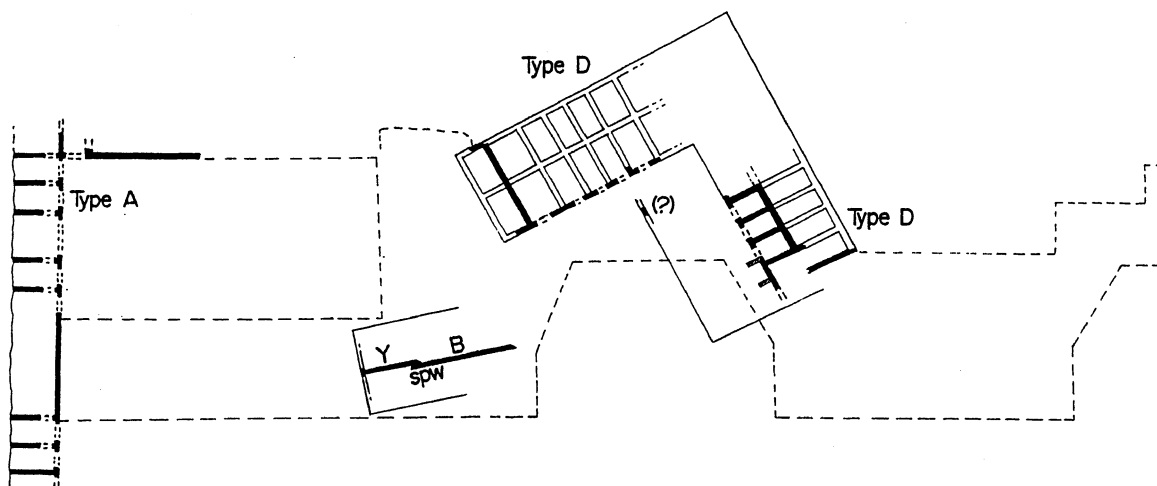


1. THE WEST END GROUP (ROOMS 8–17) AND THE NORTH CORRIDOR GROUP (ROOMS 18–19)

The West End Group and North Corridor Groups are relatively minor components of the Esquiline Wing at the far west end (Figs. 3 and 6).⁵⁰ They are of pre-Neronian origin, introducing a key concept in the Esquiline Wing: Severus and Celer gladly reused some standing remains, so long as these closely matched the needs of their palace design. Pre-Neronian remains were seldom reused for rooms of great significance, however, but generally for more practical purposes not involving Nero's use at all. The West End Group and North Corridor Group are canonical examples of this practice.

The Type A Phase in the West End Group (Rooms 8–17)

The core of the West End Group was made of the distinctive, non-*III Periodo* Type A masonry. It was built into a terrace cutting that forms the common west wall. The terrace retaining wall is of unfaced concrete, cast against wooden formwork.⁵¹ The axis of the West End Group is slightly west of due south, at odds with the precise compass orientation of the Neronian phases. This gives the West Court a slightly nonsquare west end, which is just discernible, but not disturbing. The line of rooms originally continued to the north beyond the Neronian Esquiline



6. Distantly pre-Neronian phases: Types A, B, D and Y.

Wing, as indicated by the filled door in the north wall of Room 17 and the closed off corridor that originally ran north from Room 18.

The design of the individual rooms in the West End Group is a type common throughout the Esquiline Wing, called a *sellarium*. This is a large, well-lit room with a function not architecturally defined. *Sellaria* are simple rectangles, usually lined up side by side, as in the West End Group. They are longitudinally barrel vaulted and open onto a courtyard or open space at one end through a large door, commonly with a window above. *Sellaria* almost always have small side doors next to the large door, that is, at the east ends of the West End Group rooms, forming a transverse file of doors along the entire length of the group.

In the original pre-Neronian Type A design the area of Rooms 10–12 was not divided into *sellaria* and was hypaethral, with *sellaria* only to the north of this space (compare Figs. 6 and 30). The east side of the space was contiguous Type A, with no doorways or windows. Predictably, the West End Group does not bond with the Neronian masonry in the West Block and in Corridor 19 Type A is separated from the Neronian phases by at least one intervening phase. The fact that the Neronian masonry phase can be easily distinguished from the original Type A confirms the pre-Neronian date of the West End Group. All of the Type A walls bond together as one project, whereas the Type F walls abut Type A wherever they meet.⁵²

Room 15 is clearly the most important room in the West End Group, nearly twice the size of the rest, and the centerpiece of a symmetrical group, with Rooms 13–14 and 16–17 on either side. Naturally the axis for this group is perpendicular to the West End Group, which is slightly oblique to the Neronian axis, so the

axis of Room 15 crosses the West Court at a slight angle. The West End Group's *sellarium* doorways were filled in the Neronian period, so the irregularities from this pre-Neronian design were not readily detectable in the Neronian period. For all intents and purposes, the West End Group served only as a visual backdrop for the view from the Nymphaeum Suite.

Although the West End Group never played an important role in the Esquiline Wing, its history is informative even though we do not know its original purpose. The fine original decoration (Chapter 1.4) and relatively impressive design of Rooms 13–17, indicate that the Type A project was originally finer than purely utilitarian. That does not mean it was palatial, or even residential, because fine decoration, including revetment, was common in commercial buildings too. I emphasize the point because I later argue that all of the other pre-Neronian phases represent commercial projects of one sort or another.⁵³ The simple line of rectangular rooms in the Type A project would certainly make sense as a line of shops, but the inconsistent room sizes and transverse file of doors are not common shop features. Some *comparanda* do exist, however, for instance the Campo della Magna Mater at Ostia. This was mostly a religious center, but it also had guild halls similar in design to the Type A project.⁵⁴ Like the Type A project, the Campo della Magna Mater had a large, open space lined with rooms of different sizes, including hypaethral enclosures. There is no evidence for religious activity in the Type A project, but the guild halls in Ostia tended to be similar to each other, whether for religious or commercial guilds.⁵⁵ Thus, if the Campo della Magna Mater at Ostia is a valid example of ancient guild hall design, and if first century guild halls in Rome were as similar to second century halls from Ostia, then the Type A project might well be interpreted as some sort guild hall complex, hence appropriate in a commercial area. More pedestrian commercial buildings are also similar in design, most notably the pre-Neronian structures in the area of the Meta Sudans.⁵⁶ Given the simplicity of such commercial structures – rectangular rooms lined up side by side – the similarity between them is more a matter of practicality than design influence. The comparison is valid nevertheless. *Tabernae* (*caupones* especially) in Pompeii tend to be simpler, but they are also useful *comparanda* because they have similar features to the Type A project, including access to adjacent spaces and fine decoration. Their commercial nature is also beyond doubt.

Commercial buildings were commonly built as complexes that an absentee owner did not use.⁵⁷ An overseer would be appointed and the different units were let out to small businesses. The overseer could let out one space or groups of them, according to the need of the lessee. Given that usage, a group like the West End Group would be an efficient design for subletting. A small business that only needed

one space would rent one room and the doors on either side would be barred by the overseer. If a larger business needed to rent more than one room the doors in between would be left open. This does not prove that the West End Group was originally a commercial structure, but because the literary sources suggest this was originally a commercial district, we should expect this from pre-Neronian building here.⁵⁸ Furthermore, the design of several of Rickman's examples bear more than a passing resemblance to the West End Group, in both large scale and detail.⁵⁹

In sum, the Type A project was compatible in its design details with contemporary commercial buildings and was clearly disparate from the Neronian Esquiline Wing in date and original design, that is, it is a distantly pre-Neronian commercial structure reused, unimpressively, in the Neronian Esquiline Wing. The fact that the original design had to be modified for its reuse in the Neronian period confirms the point. The revisions needed to adapt the West End Group for its Neronian functions are described in Chapter 4.2.

The Type A Phase in the North Corridor Group

The masonry of the North Corridor Group (Rooms 18 and 18A and Corridor 19) is complex, but it bespeaks a clear sequence of four main phases. The first two are pre-Neronian, to be described here, whereas the final two are from Neronian phases 1 and 2 (Chapter 4.1). The first phase is Type A (Fig. 6), integral with the West End Group and similarly prepared for revetment. The west and south sides of Room 18 are of Type A masonry, as is the west half of the north side of Corridor 19. The east side of Room 18 was originally Type A too, contiguous with the south side and Corridor 19's north side, but that portion was razed and replaced with undatable, nondescript masonry. On the north side of Corridor 19 the Type A segment comes to a cleanly finished end, indicating that there was either a doorway or completely open space in that location. The Type A walls of the North Corridor Group follow the slightly oblique axes of the West End Group. These axes were not retained in the later phases, however, giving the north side of Corridor a slight kink where the Type A segment ends. Similarly, the east end of Corridor 19 is slightly wider than the west.

The configuration of the Type A design cannot be reconstructed, however, because its rooms were buried in the Neronian terrace fill north of Rooms 17 and 18 and Corridor 19. Access to the north of the Neronian terrace wall was via the north side door of Room 17 (blocked in antiquity), the north end of Room 18 (blocked now by nondescript, probably modern masonry, but possibly open in antiquity), and around the east end of the Type A segment of the north side

of Corridor 19 (now a doorway blocked in Neronian phase 1). In the Neronian period Room 18 and Corridor 19 were reused only as terrace retaining walls, with later designs built in front of them. No other phase in the North Corridor Group was prepared for revetment, which is therefore a relic from the Type A project rejected in later designs.

Although the Type A phase contributed little to the Neronian Esquiline Wing in the North Corridor Group, its relationship to the Neronian phases is important. Most significant, of course, is the fact that the North Corridor Group unambiguously confirms the distantly pre-Neronian origin of the West End Group, and therefore the Neronian architects' practice of reusing an earlier building if they had some reason to keep it. Both the intervening masonry phase in Corridor 19 (discussed next) and the fact that the entire Type A design was suppressed in the North Corridor Group area separate the Type A project from the Neronian palaces in every way: masonry chronology, design, orientation and decoration. Ergo, ab initio, we must reject the idea that Severus and Celer, or anyone else, ever designed the whole Esquiline Wing as a single project. Fabbri has already demonstrated the point,⁶⁰ but the pre-Neronian Type D project that she published contributed little to the Neronian design, and did so only in inconsequential areas, so it could be readily dismissed as having no significant effect on Severus and Celer. This is not true for the West End Group, where Severus and Celer reused a number of pre-Neronian rooms. The chronological data from the Northwest Corridor Group take on a significance far exceeding the simple design.

The Second Pre-Neronian Phase in Corridor 19

The second pre-Neronian phase of Corridor 19 consists of the eastern half of the north side (labeled "Type C or earlier" in Fig. 11). The masonry is too heavily encrusted to be identified with certainty, but it is apparently a *III Periodo* type, and definitely not Type A because it lacks Type A's distinctive fat bricks. It also lacks Type A's revetment preparation. Neronian phase 1 Type E is definitely later, however, because it abuts this phase in the southeast corner. Its brick dimensions are the same as Type C, but it is denser by about one course per meter. This is a significant difference, so the identification of this wall with Type C is tentative, as labeled in Figure 11. Type C is probably the best likelihood for phase 2 in Corridor 19; otherwise it is a remnant of another pre-Neronian project on the Oppian ridge slightly before Type C. With these caveats established, hereafter I call the second pre-Neronian phase in Corridor 19 the Type C phase, simply for the sake of efficiency.

Whether or not this is truly Type C, however, the function of this wall is obvious. It is another terrace retaining wall, doubling the terrace started in the Type A project. The south side of Corridor 19 is Neronian, however, so there was no *cryptoporticus* here during the Type C phase. The orientation of the Type C phase wall is due east-west, therefore at a slight angle to the Type A project. The (real) Type C project had rooms beneath this retaining wall, in the area of Room 36 and probably farther west, so the terrace was either a part of Type C or slightly earlier. Thus, no later than Type C the first two phases of Corridor 19 had created a handy terrace spanning most of the West Block area. Severus and Celer reused this terrace without modification; indeed it would have been senseless not to.

There is also other evidence to demonstrate that the Type C phase of Corridor 19 is of pre-Neronian date. This includes the doorway that was left between the Type A and Type C walls and a group of mysterious deep channels in the Type C part. Both of these features had to do with some sort of design or function that was not compatible with the Neronian palace designs. The fact that we cannot reconstruct what these were is immaterial; the point is that Nero's architects had to squelch these incompatible features, which clearly proves that they were not only earlier than the Neronian design, but also different.

This introduces another key interpretive issue that recurs throughout this monograph: the tendency on the part of many scholars to dismiss complexities in the evidence by arguing that they result from precipitate and poorly organized Neronian construction practices. This is mistaken. Neronian construction was superbly organized, as the West Suite, Nymphaeum Suite and East Block clearly demonstrate. Within any Neronian construction project, there are no anomalies at all, ever. Neronian revisions only appear after the original design had been completed in every architectural detail (i.e., including the vaults, but not necessarily the decoration). In instances where the two masonry phases are both Neronian, as in the transition from Neronian phase 1 to Neronian phase 2 in the West Suite and the Nymphaeum Suite, the evidence is subtle and needs to be considered carefully (see Chapters 4.2 and 4.3), but here in Corridor 19 we have an extremely clear example involving pre-Neronian designs.

The doorway between Types A and C is informative because of its location well west of center in both Corridor 19 and the Neronian West Court (Fig. 11). Its position was established by the existing west jamb contributed by pre-Neronian Type A and undoubtedly responded to whatever the Type A project had to the north of this area before Nero's architects arrived on the site. The Type C architect did not seek to squelch that Type A feature, but built his terrace retaining wall to the east, leaving access space between Types A and C. It may not even have been a

doorway in the Type C phase, but an opening left between the two projects, with no lintel or arch above it (the masonry is invisible now because of encrustation). Nero's architects, in contrast, needed a *cryptoporticus* here, so they filled in the doorway using their usual Type E masonry.

The pre-Neronian chronology of the east half of the north side of Corridor 19 is confirmed by the enigmatic horizontal channels sunk deep into the wall. These were integral with the Type C masonry, with the facing bricks laid neatly around the openings to make perfect rectangular holes, and the sides were of unfaced concrete cast against formwork. The channels were regularly spaced along the entire length of the Type C segment (Figs. 11 and 42). The back ends of all the channels are connected by an east-west channel that opens into Room 38 at its east end.⁶¹

The westernmost channel also has three other cross channels that open into Room 38. It is impossible to reconstruct what function these channels served, but, whatever it was, it involved both the open space in front of the Type C terrace retaining wall in the Corridor 19 area and the space that would later be made into Staircase 38. More to the point, the Neronian function of these areas is clearly known, that is, a hallway and a staircase, in which contexts channels like this make no sense. Predictably, therefore, the channels were put out of use and covered up by decoration in the Neronian period. Once again we have unequivocal evidence that pre-Neronian walls of disparate function were revised and reused in the Neronian Esquiline Wing.

The east end of Corridor 19 is enigmatic, but it appears to bond with the north side and has similar masonry (clearly different from any Neronian type), but because of encrustation and damage in the corner it is impossible to make a definitive reading. It is definitely not part of the Neronian Nymphaeum Suite project, however, because the pre-Neronian masonry comes to a clean edge in the southeast corner of Corridor 19, abutted by the Neronian masonry of Room 39. The pre-Neronian doorway also has a much lower lintel than normal Neronian practice, which is particularly evident when viewed from Room 39, whose Neronian lintels tower above it (Fig. 7). Clearly the east end doorway of Corridor 19 was built when the floor level was lower than in the Neronian projects, a phenomenon that recurs in the Pentagonal Court area. In the Neronian phase only slaves were likely to use Corridor 19⁶² and it was apparently not thought necessary to raise the lintel to give them a more commodious passage. The fact that the south end of the pre-Neronian wall came to a cleanly faced surface, like a door jamb, cannot be explained with available evidence, because the later Neronian project swept away whatever else had been there before. Clearly, however, the pre-Neronian terrace



7. Room 39: Overview of the west side. L–R: Type E masonry with large doorway to the West Court; seam between Type E and Type C (to the right of the meter); Type C with small doorway to Corridor 19; doorway, with arched lintel, to Staircase 38.

retaining wall had a spur that reached out towards something, and whatever that was got in the way of Severus and Celer. The Neronian phase of Corridor 19 is properly a part of the West Court design (discussed in Chapter 4.1).

2. THE TYPE D PHASE AND ASSOCIATED PRE-NERONIAN REMAINS

The distantly pre-Neronian Type D project is the first masonry phase in the Pentagonal Court area, with all adjacent masonry abutting it. Fabbrini has described the accessible Type D evidence in detail,⁶³ to which I add only some conjectural reconstructions (Figs. 6 and 12). Type D introduces an important phenomenon that manifests itself throughout the Esquiline Wing, which is the fact that by the Imperial period no Roman architect built on bedrock. By then, every part of the city had been repeatedly built over, enough so that the habitation surface was at least several meters higher than the underlying surfaces of the seven hills. Each new building was founded on the filled-in remains of the previous, the very process that

preserved the Esquiline Wing when Trajan's engineers reused it for foundations for the Baths of Trajan. The fact that this process was well under way by the time Nero arrived on this site is confirmed by the masonry chronology of the Esquiline Wing. Sanguinetti's excavations below Neronian floor level in Rooms 37 and 53–55 revealed the later Republican and early Imperial buildings that had been supplanted by the earliest phases of the South Party Wall.⁶⁴

Archaeologists are familiar with this process in a vertical direction, that is, with each subsequent phase being built *above* the previous, but on the slopes of the hills of Rome the process also works horizontally. Buildings on a slope need to be set onto a terrace, either created by a platform above the sloped surface or by cutting into it and supporting the hill above with a terrace retaining wall, in either case being horizontally farther out from the hill surface than earlier architecture. We have already seen such a terrace in the north side of Corridor 19. In that case, and no doubt commonly, once a terrace has been created several subsequent projects can take advantage of it. This process works whether or not the retaining wall was built on purpose or, instead, consists of an earlier building filled in to become a terrace retaining wall. Then there tends to be a sequence of phases working its way outward – away from the slope of the hill and away from the retaining wall that created the terrace in the first place.

This sequence exists throughout the Esquiline Wing and was nearly inevitable, proceeding from north to south. It would have been foolish for Severus and Celer to raze existing retaining walls simply to rebuild their own, even if the terrace were retained only by the southernmost earlier buildings that did not get in the way of their own design. It is much easier to fill in a standing building, including filling in a few doors and windows than to raze the earlier buildings, build a new retaining wall and then backfill behind it. More important, the same was true for any pre-Neronian architect. The process is difficult to sense in the West Block, because the pre-Neronian remains there happen to have been retaining walls already, so Severus and Celer simply razed everything back to that neat surface and worked from a completely clean slate to the south of it. Figure 4 includes a heavy line showing the terrace retaining wall actually used in the Neronian design, which clearly shows what an easy situation Severus and Celer found in the West Block. A similar situation, including a correspondingly straight pre-Neronian terrace retaining wall also happened to exist in the East Block area (Fig. 11; see Chapter 3.3). It is the Pentagonal Court area that was exceptional. Here Severus and Celer found standing buildings that they actually wanted to keep for reuse in the Neronian palace. Those earlier buildings had inevitably been built on a terrace, so Severus and Celer also had to retain the previous architects' decisions concerning terrace

retaining walls. In this case there was no terrace retaining wall *per se*. Instead, the pre-Neronian Type D project existed already, and subsequent architects built in front of it, to the south, using it as a terrace retaining wall although it was still in use.

More important is the sequence of masonry phases that can be traced starting at the Type D façade and continuing step-by-step to the south. These appear in Figures 6 and 11. The steps are described in Chapter 3, but here is a brief overview of the sequence, in chronological and geographical order: 1) Type D (Fig. 6); 2) Types Y and B in the South Party Wall (Fig. 6); 3) Modifications to Type D (fragmentary evidence in Rooms 80 and 88; Fig. 11); 4) Type X (Fig. 11); 5) Type C (Fig. 11); 6) Nero's Esquiline Wing. As this sequence demonstrates, much of the Pentagonal Court is not of Neronian origin, and indeed it was the rather fine design of the pre-Neronian Type C phase that convinced Severus and Celer to modify this area to suit their needs rather than raze everything to start from scratch. In this sequence Type D was the oldest building in the neighborhood, with later buildings built next to it.

3. TYPE D NORTH OF THE PENTAGONAL COURT

A certain amount of imagination is needed to make sense of the Type D project, however. It was a distantly pre-Neronian commercial building that undulated along the contours of the Oppian ridge in an irregular fashion, as shown in Figures 6 and 12. The neighborhood was of a utilitarian nature, requiring practical designs rather than grandeur, but the Type D project was large and built of high-quality masonry. The irregularity of the Type D building befitted the commercial nature of the pre-Neronian neighborhood, with no notion that Nero's palace would later be built in front of it.

Throughout the pre-Neronian period the Type D building remained in use. The later Type X project was set out from the Type D façade with an irregular alley between, appropriate for the purely practical needs of the designers. Only when the Neronian palace supplanted the commercial area was the Type D building abandoned and its walls and doors filled in so that it served no purpose other than as a terrace retaining wall. The Type D building therefore contributed little to Nero's palace and, because Severus and Celer filled in its doors and backfilled behind the façade, most of the Type D plan is conjectural (Fig. 6).

There are just two significant remnants of Type D, both at the north end of the Pentagonal Court. Its long, straight façade wall now forms the north sides of

Rooms 70, 72, 75, 77 and 78 (Fig. 12, called the Type D façade hereafter). There are remnants of sidewalls running to the northwest behind the façade, of which the east side of Room 46 is the most accessible. Part of another can be seen through the west doorway in Room 77. The north side of the Type D building is known because the broken end of it projects into the southeast corner of Staircase 38 (Figs. 6 and 12). This is so far to the north that the rooms spaced according to the Type D façade doorways would have been very long and thin, probably therefore divided by a central *spina* wall with addorsed rooms on either side of it. Figure 29 is reconstructed accordingly, although the position of the internal walls can only be suggested conjecturally.

Behind Room 78 (now buried) the Type D building angled to the southeast. It continued in that direction to an unknown extent, cut off to make way for the Neronian East Block, but three of its rooms (Rooms 84–86) were retained as a Neronian service corridor, modified for that purpose by having narrow, rough doorways cut through their side walls. The plan of the Pentagonal Court Complex (Fig. 12) correctly indicates that the Type D façade and Rooms 84–86 were not laid out on a rigorous ninety-degree angle. Whether this means they were different projects or simply irregular to fit the contours of the Oppian ridge cannot be determined from masonry study, not least because the only accessible Type D facing is in Rooms 84–86. Everywhere else the Type D project is covered with Neronian service corridor frescoes.

Type D also extended northeast through the area of Corridor 92 (Figs. 6 and 69) and to the southeast beyond the area of Room 86. In neither case can the original design be reconstructed. The Type D rooms to the southeast of Room 86 apparently faced southeast, including the room that contributed the back wall of Room 88, thereby explaining why this Type D wall never had a doorway.⁶⁵ Overall, the evidence for the Type D project bespeaks a large commercial building consisting of a central *spina* wall that zigzagged along the flank of the Oppian ridge, with addorsed shops on either side of it, as reconstructed in Figure 6.

Type D was founded about a meter lower than the Neronian projects, which resulted in lintels too low for use in the Neronian period. The doors at the southwest ends of Rooms 84 and 86 therefore had their tops cut away, creating an arched doorway in Room 84 (Fig. 8) and a rectangular doorway in Room 86 (Fig. 9). In Room 85 (Fig. 10) and the Type D façade wall, the doorways went out of use in the Neronian period and were filled in.

Every Type D doorway had a small window above it, but in Rooms 84–86 the design was somewhat different from the Type D façade wall.⁶⁶ In Rooms 84–86



8. Corridor 79: View of the eastern straight section, looking east toward the arched doorway into Room 84 (Type D, with the lunette cut out to raise the lintel to the Neronian level).

the windows are typical *hypaethraea* – small ventilation windows low over the door, penetrating the lunettes between the flat and half-round relieving arches. Fabbrini has recognized this as the configuration of a commercial building, with which I concur.⁶⁷ Figure 10, in Room 85, is the best example, showing both the Type D configuration and the Neronian Type F filling the Type D door and *hypaethraeum* (at an oblique angle, as shown on Fig. 12). In the façade area the windows are larger and set higher in the walls, above the half-round relieving arches. Commercial buildings in ancient Rome did not have a single, invariable window type, so the variety in Type D is not inappropriate.⁶⁸



9. Corridor 92A: Looking west from the west end of Corridor 92. L–R: Scar from trimmed off Type D wall in Corridor 92 (left edge of photo); Type D fabric originally forming the south corner of Room 86, with travertine impost block for the flat relieving arch; pre-Neronian fabric forming the northwest side of Room 88 (cf. Fig. 12), projecting under the original Type D lintel (with meter on it); east-end doorway of Room 92A, with the west-end doorway visible through it. The top of the east doorway is cut higher into the Type D material than the original lintel, removing the likely Type D *hypaethraeum* to accommodate the higher Neronian floor level. The travertine imposts remain on either side, as does part of the flat arch lintel to the left. The right impost block and concrete door jamb below it have been trimmed to the Neronian orientation (cf. Fig. 12, with the original Type D configuration in dotted line). At the right edge of the photo is the doorway between Rooms 85 and 86, showing the core concrete in the jamb exposed when the doorway was cut through the Type D wall in the Neronian period.



10. Room 85: Overview to the southwest. The small window at the top is post-Neronian. The Type D doorway appears at the bottom, with travertine imposts for the flat arch lintel, filled in with Neronian Type F masonry of the east side of Room 83. The *hypoethraeum* above it was filled with Type F too, forming a small niche.

4. OTHER DISTANTLY PRE-NERONIAN WALLS APPARENTLY RELATED TO TYPE D

The commercial district of which Type D was a part was never intended to be an orderly ensemble, nor could it be because such districts never belong to just one person and are never built completely at once. Instead, whoever owned a plot of land built whatever seemed to make the most sense according to the owner's commercial needs and the physical relationship with existing buildings and streets. The easiest way to relate a new addition to an existing building was to abut or

addorse the new design to an existing building, using the same orientation. There are three such examples related to the Type D project. Two of these contributed little to the Esquiline Wing, discussed briefly here, but the third, in the area of Rooms 69 and 70, was actually used by Nero, as discussed in Chapter 3.1. The others are a segment of a wall that ran through the area of Room 80 and the two sides of Room 88 (Figs. 6 and 11).

The segment at the north end of Room 80 is no longer visible, having been exposed in an excavation trench that has been backfilled. In Figure 15 a vertical crack can be seen in the center of the wall (discussed in Chapter 3.1). The trench is directly below the crack.⁶⁹ The wall is perpendicular to the Type D façade, within the limited standards of the Type D project, and parallel to the façade of Rooms 84–86. It cannot be related to Rooms 84–86 any more specifically than that, but it apparently did not bond with the Type D façade, which it would have intersected in the area of Room 77's west doorway. Probably, therefore, it is a remnant of another distantly pre-Neronian project, perhaps responsible for contributing its orientation to the Type D project. Obviously it also got in Severus and Celer's way and was razed below Neronian floor level.

The sides of Room 88 are linked more clearly to Type D. They are parallel with the side walls of Rooms 84–86 but do not line up with them. More important, they do not bond with the Type D masonry and the fabric of the northwest side wall of Room 88 extended under the original Type D lintel of Room 86's doorway. This helps establish the pre-Neronian date for this modification. When the new wall was added, this doorway was still intact, with its lintel low, according to the much lower floor level of the Type D project. The revision in Room 88 retained this low floor level and lintel. In 1985 Fabbrini excavated in the area of Room 92A to the Type D floor level.⁷⁰ Her excavation has demonstrated that the Neronian modification to the Type D doorway was only executed above Neronian floor level. The pre-Neronian remains were left intact below the floor fill. The lintel was cut away according to the location of the inserted pre-Neronian wall, confirming that it was already there, built according to the lower floor level, before the Neronian modifications were made. Then, when the Neronian design superseded the original, Room 92A was to have north and south sides parallel to Corridor 92. The south side of Room 92A was created by inserting a triangular segment of Neronian masonry (Fig. 12), which also extended under the Type D lintel, and then the lintel was cut away to raise the top of the doorway according to the south jamb formed by this triangle of masonry. So, beyond any doubt, the side walls of Room 88 are pre-Neronian, readily distinguishable from the Neronian phase material that abuts them.

The southeast side of Room 88 had a similar chronology. The Type D wall (the northeast end of Room 88) continued to the southeast beyond the area of Room 88 when the extra wall was built up to it. When Room 89 was added in the Neronian period, the Type D wall was razed, but the southeast side of Room 88 was left in place, with a clean, straight edge where it had abutted the now missing Type D wall surface. Then the Neronian Type F of Room 89's apse was built up to that straight edge. The fact that the southeast side of Room 88 was built when the Type D wall was there and that the Neronian design required that the Type D wall be removed, separates the intervening wall from the Neronian project; the sides of Room 88 existed before Severus and Celer came and reused them.

Whether or not these two distantly pre-Neronian bits relate to each other, they indicate that more architecture on Type D's oblique orientation existed in the northeast part of the Pentagonal Court area before Severus and Celer swept the area clear (stippled on Fig. 11). Equally important, when Severus and Celer laid out their Pentagonal Court design, Type D had already contributed the general orientation of the northeast side, and the extra walls in Room 88 may indicate that a wall of that orientation was already fairly close to the actual location of their northeast side.⁷¹ For good or ill, Severus and Celer had a lot of earlier material to work with here.

THREE



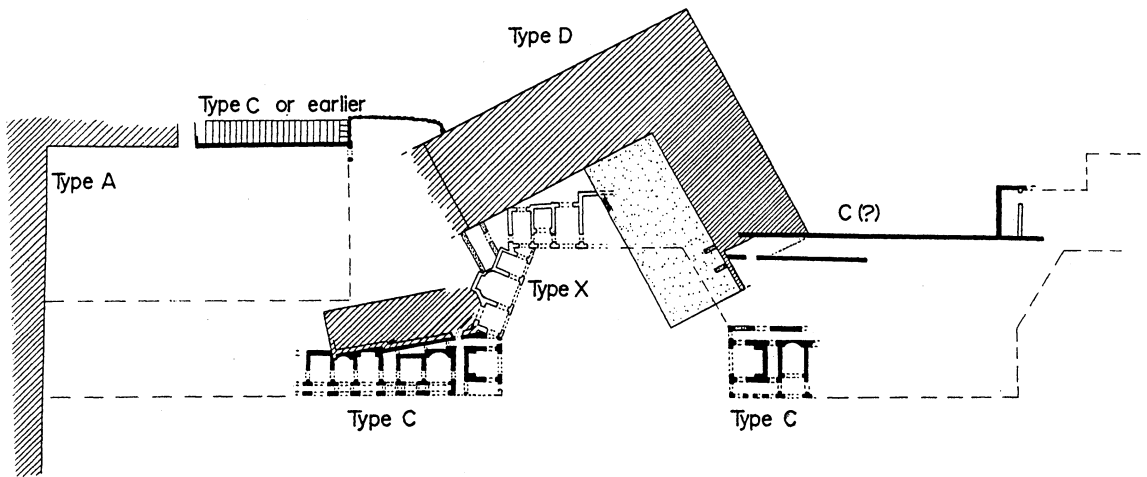
THE PENTAGONAL COURT



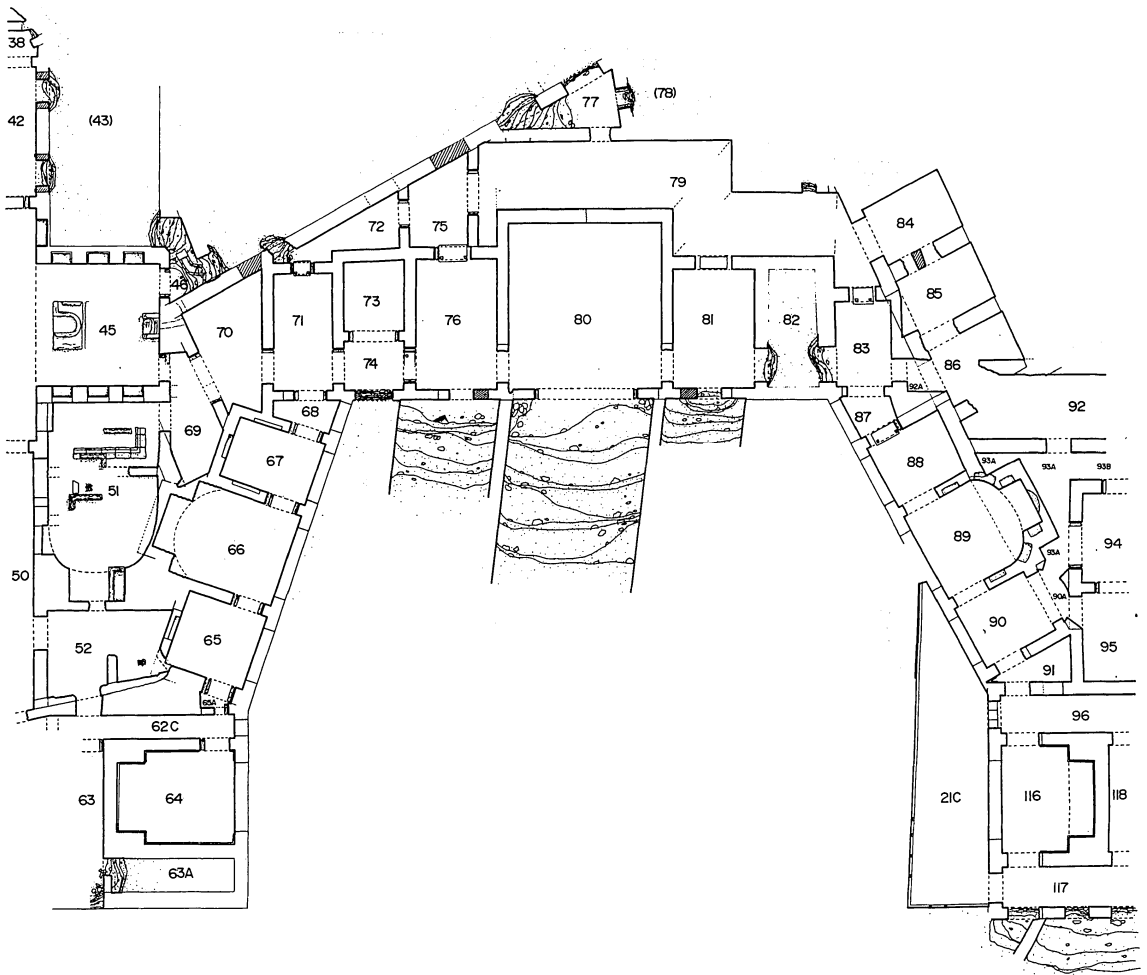
I. PRE-NERONIAN TYPE X AND RELATED MASONRY (ROOMS 65–80)

The Type X project is the most problematic and controversial phase in the Esquiline Wing (Figs. 11 and 12). It ought not be, however. Missing or encrusted facing means that Type X cannot be described in detail as a masonry type, but the chronological position of the Type X project relative to the other phases in the Pentagonal Court is unambiguous. Type X is a distantly pre-Neronian construction, reused by Severus and Celer to form all of the Northwest Group (Rooms 65–70) of their Pentagonal Court and the west half of the North Group (the North Group is Rooms 71–83; the Type X part is Rooms 71–74, 76 and the west half of Room 80, as indicated on Fig. 11).

The masonry details are described later, but because the Type X phase is controversial, an emphatic summation of what the data tell us about it may be useful from the outset. The Type X remnant provides two sides of the Pentagonal Court, the largest and externally most distinctive design feature in the Neronian palace (the Pentagonal Court). Given that, it must seem that the Type X was an integral part of the Neronian design and must perforce have been built as part of the Neronian project. This is false; the Type X segments were reused by Severus and Celer, not built by them. Right around the perimeter of the Type X masonry block, wherever Type X walls intersect the Neronian design, the Type X walls were razed to get



11. Pre-Neronian phases: Types C and X.



12. Pentagonal Court: State plan. West Group: Rooms 62C-64. Northwest Group: Rooms 65A-70. North Group: Rooms 71-83. Northeast Group: Rooms 84-91. East Group: Rooms 96 and 116-120.

them out of the way. That is, the original Type X design was not compatible with the Neronian palace project and only a fragment of its original design was retained and modified for reuse in the Neronian design. Type X is definitely not an earlier construction step within the Neronian project. Equally important, in most instances there is also at least one non-Neronian design phase between Type X and Neronian phase 1. The evidence is unambiguous, consistent and voluminous. The evidence is also particularly interesting, when considered in its entirety, because it gives us a unique insight into the intellectual procedures of two of the most important architects of all time. The fact that Severus and Celer reused some fragments of previous buildings in their design does not reduce the cleverness or importance of their designs, but rather enhances our appreciation of them.

Nevertheless, the fact that pre-Neronian remains contributed significantly to the Neronian Pentagonal Court has been difficult for many scholars to accept. Looking at the overall design of the Esquiline Wing (e.g., Fig. 5), it is easy and comfortable to presume that the Esquiline Wing was always intended to manifest itself as three huge, grand motifs (West Block, Pentagonal Court and East Block), rather like environmental sculpture, articulated and decorated with smaller motifs (colonnades, windows, complex exterior frescoes with relief stucco, etc.). The notion that the great Pentagonal Court was not made wholly of Neronian masonry seems to contradict the design integrity of the Esquiline Wing overall.⁷² This is a mistake. It is only some of the *masonry* that is pre-Neronian, not the design of the Pentagonal Court as a whole. Put another way, the Type X project and all other pre-Neronian projects in the Pentagonal Court area were not pentagonal courts; there was no such thing until Severus and Celer conceived of the motif and built it in the Neronian period. So the Type X masonry need not be as controversial as some seem to think. Although I do insist that the masonry evidence requires us to change our minds about the masonry chronology of the Esquiline Wing, little change in our understanding of the design is required. The only change that the masonry evidence requires is the fact that pre-Neronian architecture did hint at one key motif that Nero's architects only had to recognize and execute, rather than design from scratch. The fact that they also incorporated some of the suggestive masonry from the earlier buildings was merely a matter of efficient organization. Ultimately and ineluctably, however, the grand palatial motifs are still of Neronian date; the complex masonry chronology of the Pentagonal Court does not upset our understanding of the Neronian architectural revolution.

The Type X project is best understood if the later Neronian masonry is ignored, as shown in Figure 11, which includes the earlier remains, including Type D to the north and the earliest phases of the South Party wall to the south (this chapter,

Section 2). Whether Type A at the far west end existed when Type X was built is unclear, but Type C (this chapter, Section 3) is definitely later. The pre-Neronian phases associated with Type D (lightly stippled on Fig. 11), probably predate Type X, but this cannot be determined conclusively.⁷³ In any case, the different oblique orientations and irregular designs of the Type D project and the early phase of the South Party Wall demonstrate that this area was not a grand architectural ensemble when the Type X project was added. It is easy to overlook that fact when considering the Esquiline Wing now, because the Pentagonal Court is saliently grand and orderly. This only became true, however, when Nero's architects added Rooms 80–83 and 87–91, mirroring the standing Type X of Rooms 65–80 and revised the façade around most of the Pentagonal Court perimeter (this chapter, Section 4). Before that, Type X was just as irregular as the Type D and South Party Wall designs, inserting two lines of rectangular rooms where there was room for them, probably based on the contours of the Esquiline hill at that time.

Although the Type X masonry type cannot be described in perfect detail, it is generally consistent in density and brick dimensions, apparently a *III Periodo* type, but it is much coarser than Neronian brickwork, by a full course per meter relative to Type F and two courses relative to Type E. By *III Periodo* standards one course per meter is a substantial difference; two is a chasm. On the other hand, despite the damaged or encrusted facing, enough evidence exists to demonstrate that the whole Type X project is one integral design, including a bond in the corner between Rooms 68, 71 and 74 (visible in the window of Room 68).

The entire Type X design cannot be reconstructed, but a few of its key features are worth noting. The rooms were sized according to the available space, most notably the area of Rooms 70–80. Here the long, oblique Type D façade remained in use (Figs. 6 and 11). The Type X rooms in front of it were set on an east-west axis, with the backs of the rooms stepping progressively farther north as the Type D façade wall receded behind them. Because this area was a commercial district before the great fire of A.D. 64, it is interesting to note that this is a common design for lines of shops, more spatially efficient than visually elegant. For example, the roughly contemporary shops on the south side of the Forum of Julius Caesar are of this configuration. The space between Types D and X, now the area of Rooms 77 and 78 and Corridor 79, was a hypaethral alley. Room 71 is integral to the Type X project, but the area of Rooms 69 and 70 was another irregular hypaethral area. The diagonal side walls of Room 69 (dark stippling in Fig. 11) are a later addition. The design of Types X and D in the area of the Neronian Nymphaeum Suite cannot be reconstructed, but they did extend farther west than Rooms 46 and 65–68 and had to be razed to make way for the Neronian design. Similarly, as

originally designed Room 65 (Fig. 12) had a doorway at its northwest end, which provided access to something in the area of Room 52 that was later supplanted by the Neronian Nymphaeum Suite. The Neronian design is not compatible with this doorway, which was therefore filled in. The south end of Type X was the diagonal southwest side of Room 65 (Fig. 12), while the little triangular Room 65A to the south of it is part of the later Type C project (Fig. 11). Thus, the Type X project did not have a due east-west axis at its south end, but retained the oblique orientation of Rooms 65–68 in all particulars.

So, to incorporate the Type X project into the grand and orderly design of the Neronian Esquiline Wing, the Type X project had to be substantially modified, and much of it had to be razed. Beyond any doubt, Type X, *ab initio*, was not a part of the Neronian Esquiline Wing, but was incorporated into it later.

Rooms 65–68 and 71–80

Several key features of the Pentagonal Court were established by the Type X architect, including the basic *sellarium* type (albeit ignored by the Type C architect in Rooms 64 and 116). Type X also established the motif of a larger room symmetrically flanked by smaller rooms, specifically in Rooms 65–67. The later Type C architect did not use this motif either, but Severus and Celer adopted it and employed it on a grand scale throughout their Esquiline Wing design.

The Type X *sellaria* are canonical, with longitudinal barrel vaults and typical outer doorways. The windows above are of the sort used where there was no colonnade on the outside (Fig. 13), that is, the same width as the doorways and set low over the flat arch lintels.⁷⁴ The windows had flat and half-round relieving arches, the latter spanning the perimeter of the lunette under the room vault. Severus and Celer copied this motif, necessarily so in Rooms 87–90, because of the need to be symmetrical with the Type X rooms, and in the West Court. In the latter case, this turned out to be a mistake, because it is a window design incompatible with a colonnade, which they later decided to incorporate into the West Court (Chapter 4.1).

The inner ends of Type X *sellaria* tend to be elaborated, albeit differently from each other. Rooms 65, 71 and 76 had doorways; Room 66 had an apse with a niche in it; Room 68 had a shallow niche; and Rooms 68 and 76 had high windows. Only Room 73 lacked elaboration at its back end, no doubt compensated for by the fact that it was the only Type X room with an antechamber (Room 74).



13. Room 67: The southeast end, viewed from inside the room. An example of a large, low window over a doorway (later filled in with *opus reticulatum*) where no exterior colonnade was intended, analogous to the original Neronian phase 1 design for the West Court (20), before it was decided to install a colonnade (cf. Figs. 31 and 32).

In Room 66 the sides of the apse were later cut away to form square corners at an unknown date. The two configurations appear in Figures 29 and 30. The Neronian decoration scheme for the Pentagonal Court passes onto the cut surfaces, so Neronian phase 2 is the *terminus ante quem* for the revision. The oblique southeast end of Room 69 was apparently built when the apse of Room 66 was in its original form, oriented tangential to it. When the apse was squared the cut came perilously close to the wall surface in Room 69.⁷⁵ Room 69 is obviously pre-Neronian, because it was one of the features razed to get it out of the way of the Neronian

design for Rooms 45 and 51, so its relationship to the apse in Room 66 helps to confirm the pre-Neronian date for the apse motif. Room 89 then mirrored that motif in Neronian phase 2.

In the North Group the most important evidence is in Rooms 76 and 80. Rooms 71 and 73–74 have no chronological information other than the fact that they are integral parts of the Type X project and thus are not described in detail. Room 76 is important because it confirms that the Type D rooms remained accessible and in use when Type X was originally built. Room 76 also demonstrates that the area of Rooms 72, 75 and 77–79 was an undivided, entirely hypaethral alleyway. The walls that later divided the Type X *hypaethral* alleyway into Rooms 72, 75 and 77–79 are Neronian phase 2, surrounded on all sides by pre-Neronian masonry that they abut everywhere they touch. The key evidence is at the north end of Room 76 (Fig. 14). In addition to the fact that it had a doorway leading into the alleyway, it also had a high skylight in its north lunette. In Figure 14 the skylight is at the very top of the photo, whereas the conspicuous window just above the doorway was cut later, as a post-Neronian revision. The skylight was an integral part of the Type X design, including faced sides of the window frame and a flat-arched lintel. This skylight is important because it proves that the area of Room 75 was open to the sky when the Type X project was constructed, or else there would have been no source of light for the skylight to tap. When the vault over Room 75 was added during the Neronian period, it blocked the skylight and put it out of use. The skylight was therefore filled and the Neronian decoration in Room 76 passes onto the fill. Two other points relate to this. First, the hypaethral area was inconsistent with the Neronian design of the Esquiline Wing. It would have been directly between the exit from the *piano nobile* of the East Block (over Rooms 83 and 87) and the grand Staircase 38. The irregularly shaped chasm would have been both unsightly and inconvenient, but in the Neronian period the hypaethral alleyway no longer mattered. Previously the alley lit the Type D project, but in the Neronian design Type D had been backfilled and was no longer in use, depriving the alley of its *raison d'être*. Severus and Celer therefore converted the alley into a service corridor (79) lit by small skylights. Vaulting Rooms 72, 75 and 77–79 made sense in the Neronian design, but not previously, whereas, conversely, the hypaethral alley and the skylight in Room 76 were obviously at odds with the Neronian design, requiring the changes we find *in situ*. Again, the pre-Neronian date for Type X is confirmed.

Second, in the Neronian design of the North Group, Rooms 76 and 81 were obviously pendant to each other, flanking the central Room 80. Undoubtedly, had these rooms all been of Neronian date they would have been laid out at



14. Room 76: Overview to the north. The pre-Neronian skylight is at the top of the photo, filled in; the window just above the door is a post-Neronian modification.

the same time and would be built according to similar design criteria, but this is not the case. Of the two, only Room 81 is Neronian, clearly echoing the earlier Type X Room 76 in plan, but not repeating the skylight, which was obsolete in the Neronian period. Both rooms then had suspended ceilings added below their vaults, a common Neronian practice, but entirely at odds with the skylight in Room 76. Clearly, therefore, this skylight represents the different circumstances in the pre-Neronian period.

The distinction between Type X and the Neronian phase is most obvious in the north end of Room 80 (Fig. 15). In the middle of the wall there is a tall, vertical seam, just visible in the photo. This is a rough break, with the brick courses on either side not lining up. It spans the height of the wall from the floor to the base

of the lunette, while the lunette masonry is contiguous above the seam. Type X is to the west of the crack. A completely reliable reading of Type X masonry type is not possible because of encrustation, but it is one course per meter denser than the (indubitable) Neronian phase 2 Type F to the east of the seam. The Type X mortar is also very lightly pointed, different from the Neronian practice of scribing along the bottom edge with a rounded tool. The brickwork and coursing of Type X are at the coarsest extreme of *III Periodo*, with fairly consistent brick thicknesses in the 38- to 41-mm range and ca. 16½ courses per meter, consistently throughout.

To the east of the crack is Neronian phase 2 Type F, a large sample and more legible than the Type X. It is consistently 17+ courses per meter (a substantial difference), with bricks tending strongly to the 40- to 45-mm range. The pointing is as per Neronian practice too.⁷⁶ In addition to the change in brickwork, the putlog holes for scaffolding do not line up on either side of the crack. Obviously there is a break in the masonry here, with different material on either side of it.⁷⁷ Whatever the Type X project had to the east of this crack cannot be reconstructed, however, because it was all swept away when Severus and Celer built Rooms 80–83 and 87–91 to create the Pentagonal Court.

Rooms 69 and 70

Rooms 69 and 70 are a slightly later phenomenon than Type X, inserted between Type D to the north and Type X to the south. The relative chronology of Types D and X is established by the east side of Room 70. This wall is part of the Type X project, integral with Room 68, whose west end it forms. At the north end of this wall the Type D wall had a doorway (Fig. 12). The masonry of the east side of Room 70 passed through the doorway, narrowing it but not putting it out of use.⁷⁸ This arrangement is perfectly functional but aesthetically awkward, in keeping with the utilitarian nature of the pre-Neronian phases. Chronologically this configuration is important, however, in so far as it not only establishes the sequence of Type D and X but also demonstrates that they were constructed according to different design parameters. The fact that the Type D doorway was not completely filled shows that Type D's needs were respected at least to the extent that its rooms remained functional, but also because the Type D doorway was narrowed, and because the Type X architect did not bother to shift his wall away from the Type D, the needs of the Type D project had clearly become subordinate to the needs of Type X. More important, the hypaethral space in front of the Type D façade had originally allowed easy access along the whole Type D façade. This was interrupted where the northwest corner of Room 71 touched the Type D façade wall, making the Type D rooms less accessible and convenient.



15. Room 80: Overview to the north.

Rooms 69 and 70, then, are the next phase after Types D and X. They were enclosed by adding the two oblique side walls of Room 69. Apparently this was an attempt to insert some additional utilitarian rooms into the commercial district. There may have been others to the west, and all of them would have been surrounded by other rooms on all sides, enclosed and poorly lit. The awkward shape of Room 70 indicates that the unpleasant ambience did not matter; probably these were storage rooms of some sort, not intended for extended human use, or else Room 70 was left as a small lightwell for Room 69 and the Type D room to the north (both of more regular design). Room 69 was originally oriented perpendicular to the Type D façade, so that it was rectangular except for the slight intrusion of Room 67 in one corner. It was longitudinally barrel vaulted (Fig. 11). This simple design took on its current awkward shape only when its west side, north end and barrel vault were obliquely chopped off to make way for the Neronian Nymphaeum Suite (Fig. 12). The resulting scars appear in Room 51, where their chronological implications are important (Chapter 4.3).

The masonry of Room 69 is informative, despite being too small a sample for a type reading. The plan (Fig. 12) might suggest that Room 69 was part of the Type D project because of its similar orientation,⁷⁹ but the masonry proves it is not. Room 69's masonry is one course per meter denser than the Type D façade wall and Room 69's side walls cleanly abut both the Type D to the north and the

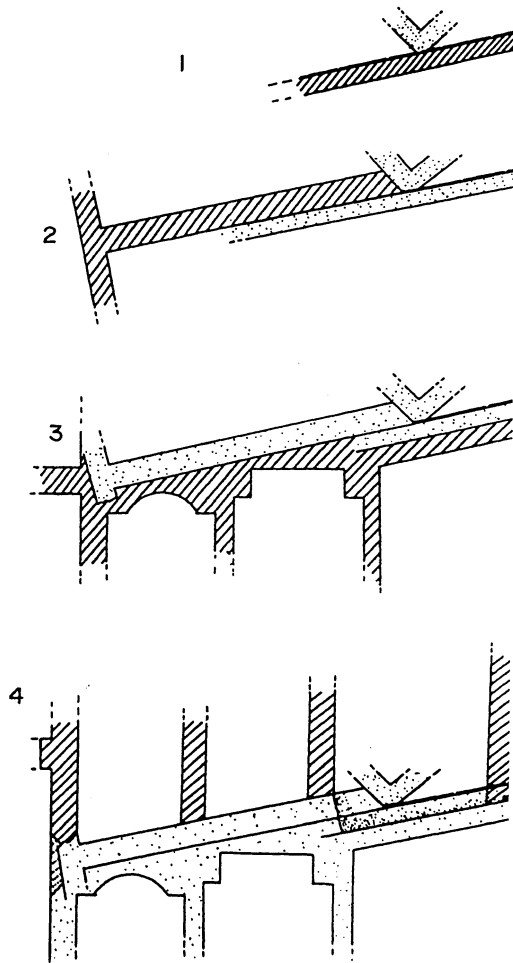
Type X to the south. The perfectly intact facing bricks laid up to the Type D and Type X masonry confirm the matter; the side walls of Room 69 were inserted between the Type D and Type X projects, clearly later than both.

In isolation the masonry chronology in Room 69 consists simply of the fact that its side walls are later than Types D and X, but this also has one crucial implication for the overall chronology of the Esquiline Wing: Room 69 proves that the Type X project is both earlier than the Neronian Nymphaeum Suite and that this little revision in Room 69 comes in between the two. A similar chronology is described in Section 3, where Type X is separated from the Neronian project not only by the pre-Neronian Type C project (Rooms 56–64), but also by a decay phase in the South Party Wall. This decay phase in the South Party Wall was both later than Type C and earlier than Neronian phase 1. In sum, the evidence in Room 69 does not occur in isolation, but rather it agrees with a substantial and consistent body of evidence that proves that the Type X parts of the Pentagonal Court were of pre-Neronian origin and separated from the Neronian projects by two intervening projects and the decay phase of the South Party Wall. Equally important, Room 69 was trimmed to accommodate the *earliest* Neronian phase in Room 51, with the rest of the complex Neronian and post-Neronian chronology of Room 51 following thereafter (Chapter 4.3).

The decoration found in Rooms 69 and 70 is discussed in Chapter 1.4, but it is worth recalling here that Room 70 has a decoration type not found in the rooms of purely Neronian origin, but similar to the pre-Neronian decoration on the east side of Room 46.⁸⁰ Because neither Room 46 nor Room 70 was of great significance in the Neronian design, the intact earlier decoration scheme was apparently found to be fine enough for Nero's purposes. In Room 69, however, so much of the room itself was razed to make way for the Neronian Nymphaeum Suite that apparently the original decoration was damaged beyond repair. It was therefore replaced by the standard Neronian service-corridor decoration, much lowlier than Room 70 and applied indifferently, right across the odd angles in the masonry.

2. THE SOUTH PARTY WALL⁸¹

The South Party Wall is the long, slightly oblique wall forming the south ends of Rooms 37, 53–55, 50 and 52.⁸² The South Party Wall includes remains from several projects and was revised or partially razed according to the needs of each. Figures 16–20 illustrate the following description.⁸³ The sequence of pre-Neronian steps is not perfectly clear because some phases in the South Party Wall may be earlier



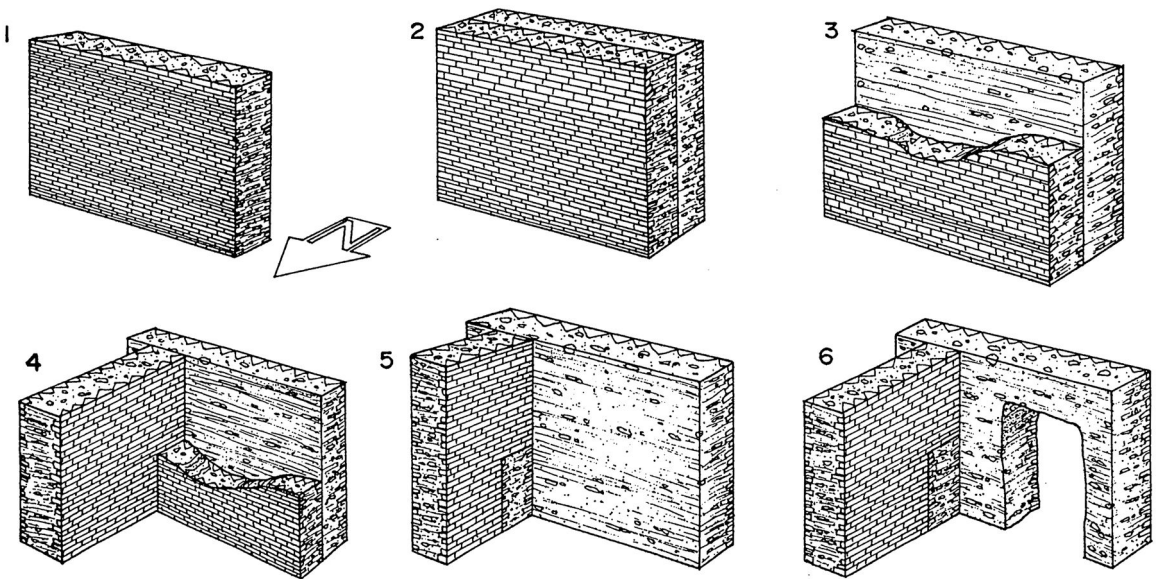
16. South Party Wall: Schematic plan of the four main masonry phases (the new masonry in each phase is hatched; standing masonry is stippled). 1) Type B cuts off the corner of a distantly pre-Neronian room. 2) Type Y is added to the west, abutting Type B. Type Y has a bonding cross wall at the west end. 3) The entire Type C project is addressed to the south side of the standing Types B and Y. The Type Y cross wall is razed, at least on the south side, and encased with Type C masonry. Type C continues farther west than the Type B cross wall. Before the next phase some of the Type B and Type Y fabric decays and collapses, leaving an irregular surface on the north side of the (undamaged) Type C (cf. Fig. 17.3). 4) Neronian phase 1 Type E of the Domus Transitoria project encases steps 1-3 on the north and west. The Type C to the west is razed and replaced, whereas the Type E coming from the north simply abuts the irregular surface of the standing walls (cf. Fig. 17.4).

than Type X, already described in Section 1 of this chapter, but the relationship is not clear enough in situ for a perfect chronology to be worked out. None of the problematic features of the South Party Wall have any bearing on the Neronian chronology because Neronian phase 1 is clearly later than both Type X and the last phase of the South Party Wall, Type C.

A chronological and topographical overview of the South Party Wall explains most of its key features and early phases. The orientation and location derive from pre-Neronian requirements, resulting in an obviously awkward effect on the Neronian design. The only reason the South Party Wall was retained under Nero at all was the desire to retain the pre-Neronian East Suite (Rooms 56–64). The East Suite and its important Type C masonry are discussed in Section 3, but for now it is sufficient to note that it was an ensemble of rooms of obviously fine quality that were integral to the South Party Wall, forming its last pre-Neronian phase. The East Suite was regarded as worth keeping when the Neronian West Block was built around these rooms, which meant that the South Party Wall was retained along with them. Furthermore, Corridor 62 provided some useful service access, worth retaining as long as no other grave damage was done to Nero's designs. More important, the South Party Wall also includes one minor phase between Type C and Neronian phase 1, which proves that the East Suite and the whole Type C project are not Neronian.

Conversely, the South Party Wall does create awkwardness in the Neronian design that could have been effortlessly avoided if this part of the West Block had been built from scratch, to the benefit of all the surrounding rooms, even resulting in easier construction. The south rooms of the Nymphaeum Suite (37, 50 and 52–55) could have had square ends; and Corridor 62 could have been straight, without the strange jogs in it, and therefore much more easily vaulted. As the plans indicate (e.g., Fig. 29), the irregular mass of solid masonry between Rooms 37 and 56, Rooms 53 and 57, and Rooms 54 and 58, could have been made into a simple straight corridor, with a barrel vault of consistent span from end to end, continuing the axis of the West Suite's central transverse file of doorways all the way to the Pentagonal Court. Most surrounding rooms in both the Nymphaeum Suite and the East Suite could actually have been made bigger, simply as a matter of more efficient use of space, as well as more harmoniously proportioned and shaped.

The Type C chronology explains why the awkwardness of the South Party Wall was tolerated, however. The East Suite (56–64) is only part of the Type C project (Fig. 11); it was retained not only for its own inherent value, but also because the Type C project included Rooms 116–119 in the East Block, that is, Type C had already defined the outer edges of the space that Severus and Celer wanted to



17. South Party Wall: Schematic perspective view of the south end of Corridor 50, showing the main masonry phases of the South Party Wall (except Type Y): 1) The Type B wall is constructed. 2) The Type C East Suite is addorsed to the south side of the Type B wall, still standing to full height, with unfaced Type C core concrete laid up next to the Type B facing. 3) Much of the Type B wall deteriorates, leaving an irregular top surface and exposing a flat surface of unfaced Type C core concrete. 4) Neronian phase 1 Type E walls of the south Nymphaeum Suite are laid up to the irregular surface of Types B and C. 5) The parts of the Type B wall not actually encased between Types E and C are razed, even with the Neronian wall surfaces in the corners and below Neronian floor surfaces along the Type C wall. 6) The doorway between Corridors 50 and 62 is cut through the Type C fabric.

make into the Pentagonal Court. The Pentagonal Court is a grand motif, so it was well worth tolerating the irregularities created by the South Party Wall to build the Pentagonal Court quickly and efficiently. Appropriately, the south end of the Nymphaeum Suite is an area of little consequence in the Neronian design, relegating the South Party Wall's irregularities to an area Nero never saw.

There are three major pre-Neronian phases in the South Party Wall, Types Y, B and C. Type C is described in the next section, and Types B and Y require only brief description and interpretation here. All three come together in Room 54 (Figs. 16, 18 and 20). In the plans, the diagonal lines forming a point that sticks into the south end of Room 54 indicate the corner of one of the distantly pre-Neronian buildings excavated by Sanguinetti below Neronian floor level.⁸⁴ The three South Party Wall masonry phases intersect at this corner and are later than Sanguinetti's pre-Neronian walls.

The earliest phase is Type B, the original core of the South Party Wall, establishing its orientation. The Type B masonry remnant spans from Room 54 to Room 52 (Figs. 16 and 20) and probably into Room 53 too, albeit obscured there by Type Y. The Type B design cannot be reconstructed, but it was certainly a substantial structure, both because its walls were tall and because the masonry is of high quality, on fine ashlar orthostates (Figs. 18 and 19). Most of the Type B masonry had fallen, apparently through decay rather than from being razed, before the Neronian period. None of it remains standing to the full height of the Esquiline Wing, which is why its top surface is drawn in Figure 20. The only contribution made by the Type B wall is that it defined the orientation of Type Y in Rooms 37 and 53, and then in concert with Type Y defined the orientation of the Type C north side of Corridor 62 addorsed to them. There are no known doors in Type B, nor evidence for any perpendicular walls bonding to it.

Type Y is the second phase of the South Party Wall. It is an illegible masonry type, because most of its facing is lost, but more can be said about its building design than was the case for Type B. Type Y was added to the north side of Type B, forming most of the south ends of Rooms 37 and 53 (Figs. 16 and 20), plus a small remnant in the southwest corner of Room 54, next to the Republican-period corner. Type Y has canonical concrete foundations and is therefore clearly a different project from Type B. In design, Type Y was a westward extension of the Type B wall, retaining its orientation. The Type Y wall was originally faced on both sides, standing alone before the Type C masonry of the East Suite was built up against its south side. Like Type B, Type Y had also decayed before the Neronian walls were built up to the South Party Wall (Fig. 18). It stands to its full height in Rooms 37 and 53, but its facing had already fallen away by the time the Neronian project was begun, so the Neronian decoration was applied directly onto the exposed concrete core of Type Y.

Type Y's most important feature is in the southwest corner of Room 37, where enough facing is preserved to demonstrate that there was an integral perpendicular cross wall in this location (Figs. 6, 16 and 20). Some of the facing for this cross wall is also visible where the Type C masonry fell away from it in Room 36 (Fig. 20). The transverse wall ran contiguously across the South Party Wall, defining its west end. This demonstrates that there were perpendicular rooms addorsed to both sides of the South Party Wall during the Type Y phase. There are no doors in the Type Y wall, so the addorsed rooms must have opened away from each other at their outer ends. Thus, in the Type Y phase the South Party Wall was apparently the *spina* of an ensemble similar to Type D and most *horrea*, as reconstructed in Figure 6.



18. Room 54: Overview to the south, showing all four phases in Figure 16. At the bottom center there is the distantly pre-Neronian oblique room, cut off by the Type B masonry, whose ashlar foundation and brickwork appear behind it. At the right end of the Type B wall, the Type Y material appears, addorsed to the front side of the Type B. At the right side of the photo the Neronian Type E west side wall abuts the Type Y from the north. Type C forms the whole back wall, unfaced throughout because it was cast against the standing Type B. The Type B was trimmed below Neronian floor level in Neronian phase 1 (cf. Fig. 17.5).

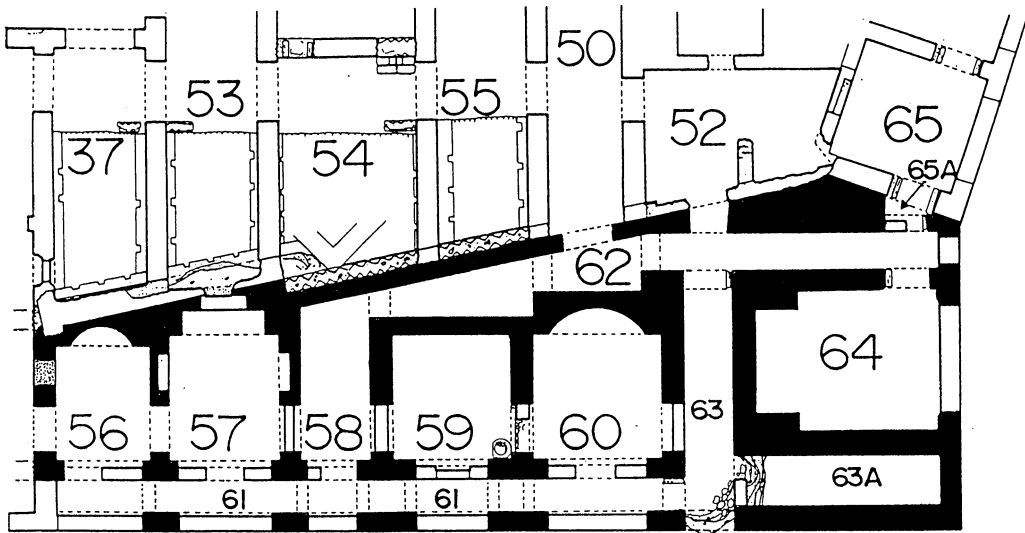
The final phase of the South Party Wall was Type C, described in the next section, but its participation in the South Party Wall can be characterized briefly (Figs. 11, 16 and 17). The Type C project was apparently larger and grander than Types B and Y. Its primary component was the East Suite, Rooms 56–64, but this originally extended farther to the west than Room 36. The Type Y transverse wall was razed south of the South Party Wall and its stump encased in the masonry of Room 56 (Fig. 16). The Type C walls extending to the west from Room 56 were later razed to make way for the Neronian West Suite (Figs. 11, 16 and 20). It is not clear if the Type Y rooms north of the South Party Wall were razed in the Type C phase or later.

The most important evidence from the Type C phase is in Rooms 54–56, Corridor 50 and Room 52. In all of these rooms the Type B walls still stood to full height when the Type C project was added. The Type C core concrete was therefore laid in next to the Type B wall without a layer of Type C facing between



19. Room 54: Detail of the southeast corner, corresponding to Figure 17.5. Bottom left: Unfaced Neronian phase 1 foundation abutting the Type B ashlar foundation. Left: Neronian phase 1 Type E facing abutting imbedded Type B wall fabric. Right (above Type B): Unfaced Type C core concrete, originally cast against the then standing Type B wall.

them (Figs. 16 and 17). This was a reasonable and efficient procedure, but it also imbedded the south side facing of Type B, which means that Types B and C never bonded with each other. The chronological relationships between Types B, Y and C are therefore clear. More important, however, is the fact that the Type B wall then decayed, before the Neronian period. Because Types B and C did not bond, Type B could easily fall away from Type C, exposing Type C's unfaced core concrete (Figs. 16–19). It is unclear how long before Neronian phase 1 this took place, but it was definitely not a matter of Neronian architects razing the Type B surface. There



20. East Suite (Rooms 56–64): State plan with pre-Neronian Type C highlighted.

would have been no advantage to doing so in the Neronian period and, more to the point, the Type B fell away haphazardly, leaving an irregular top surface (Fig. 17.4). This is clearly not a configuration that the Neronian architects would have created if they were razing the wall themselves. Instead, they did nothing about this ugly ruin at all, but left it intact at the south ends of their own rooms. In the few rooms Nero might have entered, they trimmed the ruined surfaces more neatly (Figs. 17.5 and 19), and then the decorators simply slapped low-quality frescoes onto whatever surfaces were left. Severus and Celer obviously never regarded this as an important area from the start. Corridor 50 was important, however, because it connected the much grander Nymphaeum Suite and East Suite. Accordingly, the irregular Type B remnant at its south end was trimmed neatly away, flush with the side walls (Fig. 17.6; Fig. 19 shows the same configuration in Room 54).

In sum, the South Party Wall is awkward in design, but in the Neronian period it was in an inconsequential part of the West Block. Archaeologically, however, it is crucial. Because of the phase during which Type B decayed, exposing the Type C core concrete, it is certain that Type C was, originally, a completely different phenomenon from the Neronian palace designs – not only was Type C earlier, but also there was a different phase (the decay) between it and the Neronian palaces. Type C and the Neronian palace are therefore not sequential steps, so Type C cannot be an integral part of the Neronian palace; it is clearly a pre-Neronian element reused in the Neronian design.

3. PRE-NERONIAN TYPE C

Pre-Neronian Type C is the most surprising discovery of my studies in the Esquiline Wing, although in fact its most important masonry passage has been noted long since.⁸⁵ The general layout of Type C is clear enough, although it cannot be reconstructed completely. Relatively few Type C rooms were reused in the Neronian palaces, but they are widely distributed, securely identifiable at the outer edges of the Pentagonal Court and possibly contributing to the north retaining walls for both the West and East Blocks (Fig. 11). The component in the West Block is the East Suite (Rooms 56–64, Fig. 20), whereas the component in the East Block is both the Southeast Group of the Pentagonal Court and the Southwest Quarter of the East Block (Fig. 69; the Type C component is Corridor 96 and Rooms 116–120, unshaded on the plan). The Type C remains bespeak a rather large building, but Nero's architects razed so much of it that most of its design cannot be recovered. There was originally more Type C to the north and west of the East Suite and to the north and east of the Southwest Quarter, but the remaining fragments are insufficient evidence to reconstruct either the design or the extent of these razed portions.

The chronological setting of Type C is certain, however. It is always earlier than Nero's palaces, and it is always the last masonry phase before Nero. Type C cannot be an earlier construction step in a single Neronian project because there are intervening events that separate the two. Most notably, these are the decay of the Type B and Type Y masonry in the South Party Wall, described in the previous section, plus some modifications in the Type C design in Corridors 61 and 96, described later. In all of these instances, two crucial facts are certain: first, the intervening event was later than and different from the original Type C construction. So the intervening event was not part of the Type C design. Second, even more important, the intervening event was also clearly contrary to Neronian interests; it created problems that Severus and Celer then had to correct in order to reuse the Type C rooms in their own design. This means that Severus and Celer did not execute those revisions to Type C as part of their own projects for Nero's palace. Type C is definitely pre-Neronian and definitely not an early stage in the Neronian project.

This may appear to belabor the point, but it is necessary because Type C, in concert with Type X (this chapter, Section 1), does force us to reappraise the Pentagonal Court design – indeed to change our minds about it. Type X was important only in so far as it contributed rooms that were later incorporated into the Neronian Pentagonal Court design, but because the symmetrical arrangement of

the pre-Neronian Northwest Group (Rooms 65–68 especially) and the Neronian Northeast Group (Rooms 87–91) did not exist until the Neronian period, it is fair to say that the Type X project did not originally participate in a grand, symmetrical design. It was made into such a thing only in the Neronian period.

This cannot be said for the Type C project, however. The evidence in the East Block demonstrates that there was not a pentagonal court in the Type C phase either, but then again Type C certainly did include at least some attempt to make a more orderly, large-scale ensemble of the irregular motley of shops in the area (Types D and X, and whatever still stood of the early masonry types associated with the Type D phase in Rooms 80 and 88, cf. Chapter 2.2). As Figure 11 indicates, it was the Type C project that first created the neat, symmetrical outer edges for the open space that would later be made into the Pentagonal Court. This was achieved by setting Rooms 64 and 116, and their flanking corridors, so that they face each other across the space, as a symmetrical pair. Although the Type C project consists only of small shops and corridors, it is also true that the Type C architect brought at least some grander vision to this site before Nero arrived.

That is important both because it explains some of the *modus operandi* of Severus and Celer and because it demonstrates why they would bother to retain all of the awkward masonry passages, inconveniently diagonal walls and strangely shaped rooms from the pre-Neronian masonry in this area (Types B, D, X and Y). As far as *modus operandi* is concerned, here we see for the first time a clear instance in which Severus and Celer took an existing motif and made it into something incomparably grander, while not actually making huge physical changes to the masonry that was already standing. Once the Type C phase had been constructed, it was a relatively easy task for Severus and Celer to make all of the prior architecture into the great Pentagonal Court. This required considerable vision, but little actual masonry. A similar process recurs throughout the Neronian phases in the West Block (Chapter 4) and in the Octagon Suite (Chapter 5). So the influence of Type C on Severus and Celer's design is one instance that helps us establish their thought processes, discussed in detail in Chapter 6, Section 2 and 3. By the same token, once Severus and Celer had noticed that the pre-Neronian remains could be easily made into a grand motif, worthy of their own architectural vision, they then had a vested interest in retaining the actual pre-Neronian walls that would contribute to their final design, the awkward masonry and small, odd rooms notwithstanding. We learn a lot from Type C.

The fact that the two Type C blocks flanked a wide opening was probably unavoidable for the Type C architect, however, because the earlier Type D and Type X structures were accessible only from the south, so the Type C architect had

to leave an opening for access to these earlier structures. In that case, it is a relatively simple decision to make the two edges of that unavoidable gap mirror each other in design. We also know that there was other construction in this area more or less contemporary with Type D (Chapter 2.2), which undoubtedly accounts for why the space between the two parts of the Type C project were separated as widely as they are. Probably, too, the topography of the Esquiline slope had a depression here, such as a small valley running to the south, around the contours of which the Types D and X projects had been wrapped, using the parts of the slope of just one elevation. The Type C architect may have had some latitude for deciding how wide he made the gap between his two blocks, apparently deciding to nestle his rooms next to what was already there. So, Room 64 was made to line up with the outer edge of Type X (Room 65), and, similarly, there was something in the area of Rooms 86–88 (although this cannot be reconstructed) next to which Corridor 96 and Rooms 116–120 were built.

The design of the Type C project is rather fine, while at the same time notably less impressive than the Neronian standard. The rooms are typical *sellaria*, but they are also small – not just in comparison with Nero's spacious *sellaria*, but also in absolute terms; they are similar in size to the smallest common shops facing the streets of Pompeii. Comparing Room 36 (Domus Transitoria) with Room 56 (Type C) on Figure 29 illustrates the contrast, which is keenly felt in situ.

East Suite *sellaria* are also different from Neronian *sellaria* in several important ways. First, they are architecturally fancier than the Neronian standard. Most Neronian phase 1 rooms (*sellaria* or otherwise) tend to be simple rectangles (Fig. 29). There are relatively few additional features such as the rectangular alcoves or apses. In contrast, all East Suite *sellaria* except the tiny Room 59 have some sort of architectural elaboration in the back wall. Rooms 56 and 60 have segmental apses, and Rooms 57 and 64 have rectangular alcoves. As originally designed, Room 57 also had niches in its side walls. Undoubtedly these fancy features, concentrated into a small area, helped make Type C attractive enough to Severus and Celer to retain them. The fine Type C decoration scheme (Chapter 1.4) undoubtedly contributed to this.

The Type C *sellarium* doorways are similar in size to the Neronian doorways, but because the Type C rooms are much smaller, the doors span the entire width of the rooms, undoubtedly making the Type C rooms appear brighter than their Neronian counterparts.

The most distinctive features of the East Suite *sellaria* are the *hypoethraea* above the main doorways (e.g., Fig. 21). As noted in Chapter 2.2, this is a motif common in Roman shops, suitable for ventilation, and easily barred for security, but not



21. Room 64: Overview to the east (Flavian) *opus mixtum* fills the large *sellarium* doorway, but the *hypaethraeum* above remains open.

needed for light because the large doorway would be open any time anyone was actually in the shop. *Hypaethraea* appear in the Esquiline Wing in just two phases, both pre-Neronian, the Type D commercial complex (Chapter 2.2) and here in Type C. There are no instances of this kind of window in Neronian masonry. The appearance of *hypaethraea* in the East Suite rooms therefore suggests the original function the Type C rooms. They were shops, fancy ones, obviously not storerooms in a *horreum*. Fancy shops are common in Roman architecture, of course, as evidenced by the splendid *macellum* at Pompeii (closely contemporary with Type C), Nero's own *macellum* heralded on his coinage and the Markets of Trajan in Rome.⁸⁶ Although the purpose of the pre-Neronian Type A West

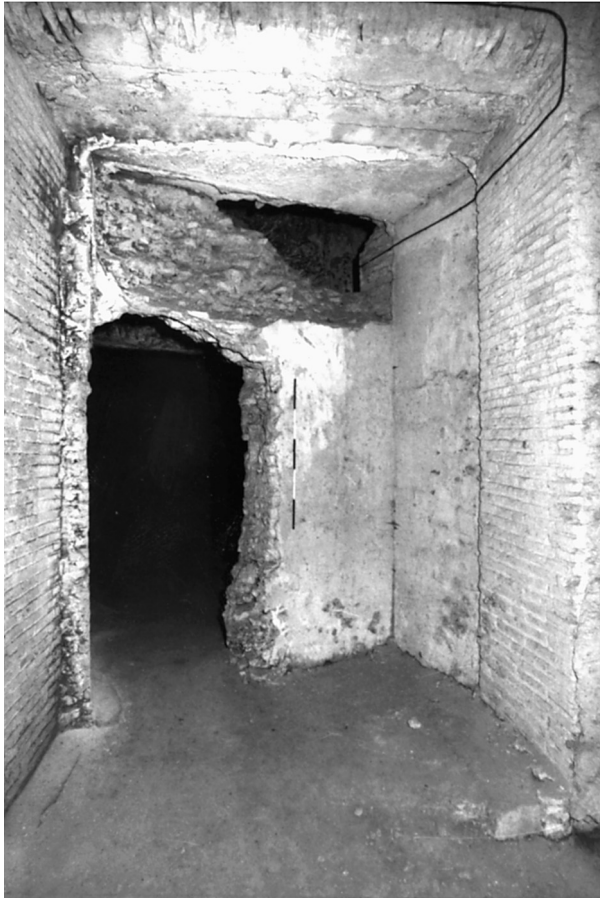
End Group (Chapter 2.1) cannot be determined, it is extremely interesting that the other two major pre-Neronian phases in the Esquiline Wing (Types D and C) were apparently commercial establishments. As Morford has demonstrated,⁸⁷ this region was primarily a commercial district before Nero, through which Nero essentially burrowed his Domus Transitoria. Indeed, this was literally true, including military siege engines used to raze impeding *horrea*.⁸⁸ The evidence from Types C and D corresponds with this historical setting perfectly; both Types C and D appear to be commercial establishments partially razed to make way for Neronian phase 1.⁸⁹

One point needs to be emphasized. By the Julio-Claudian period, truly splendid shops were not merely precedented, but commonplace, so commercial architecture was entirely worthy of the ambitious design of Type C. I dwell on the point because one of my most important discoveries is the fact that several parts of the Pentagonal Court were pre-Neronian, later sewn together under Nero to become the familiar motif. On the one hand, Type C provides two important components of the Pentagonal Court. On the other hand, the Type C design did not create a pentagonal court itself; that is a Neronian phenomenon. It was the Type C project, however, that first started to regularize this area, that is, before Nero, an architect of somewhat grand vision, had worked here. In the context of Julio-Claudian commercial design, this is perfectly in character, and both the literary and archaeological evidence confirm this state of affairs emphatically. I am therefore frankly astonished by the resistance to this suggestion that I have encountered, but the conclusion is inescapable; as the physical and literary evidence both demonstrate, there was a commercial district here and Nero reused some of it.

I have only described as many Type C design details as are needed to distinguish it clearly from the Neronian Esquiline Wing,⁹⁰ but the chronological relationships between Type C and the rest of the Esquiline Wing are crucial and must be described in detail. Although the evidence is complex, it is also flawlessly consistent; Type C is well understood.

Type C as It Relates to Type X in Room 65A

Room 65 was the southernmost end of the Type X project (Figs. 11 and 20). The relationship between Room 65 and the Type B phase of the South Party Wall is uncertain, but both Type B and Type X predate Type C, which was built up against the south side of both. As far as Type X is concerned, the evidence is in the doorway between Room 64 and Room 65A, the small triangular Type C spandrel room appended next to it (Fig. 20). Most of the masonry in Room 65A is



22. Room 65A: Overview to the south, looking in from Room 65 proper (cf. Fig. 20). L-R: Type X east jamb of the doorway between Rooms 65 and 65A (distorted by the wide-angle lens to look like a wall surface); the slender unfaced portion of the Type C east jamb of the doorway between Room 65A and Corridor 62; the doorway itself, with Type C jambs and lintel, but filled in later, probably post-Neronian, with a small doorway cut through the fill later still.

inaccessible because of post-Neronian frescoes, but the evidence that does matter is exposed and well preserved (Figs. 20 and 22). This is found in the compound doorjamb forming the east end of Room 65A (hereafter, the compound jamb). The compound jamb consists of the united east jambs of the Type X doorway between Rooms 65 and 65A and the Type C doorway between Room 65A and Corridor 62. Three steps are identifiable in the compound jamb, the first two belonging to Type X. First, Room 65 was built as an integral part of the Type

X project. This included the northern part of the compound jamb, the actual jamb surface of the southwest side door of Room 65. Room 65A did not exist at this point (if there was anything else in this area instead, Type C has obscured all evidence for it). Step 2 is the Type X decoration, which included stone framing pieces in the doorway about 10 cm thick. These have since been spoliated, but the stone foundations for them remain in situ (Figs. 20 and 22). So, before Type C was added, Type X was both completed and decorated.

Step 3 in the compound jamb is Type C. This consists of all the rest of Room 65A, created by leaving some space in the solid mass of Type C masonry that forms the north side of Corridor 62 in this area (Fig. 20). The original Type C design had a doorway between Room 65A and Corridor 62, that is, on Figure 20 the fill in the doorway between Room 65A and Corridor 62 is later – indeed post-Neronian. Like the rest of Type C, Step 3 in the compound jamb was simply built up to the existing structure without intervening facing bricks. The distinctive feature of Step 3 is the fact that its brick-faced jamb surface lined up with the Type X stone lining, that is, with Type C core concrete laid next to the south side of the stone door frame. When the stone door frames were spoliated, they exposed unfaced Type C masonry, just like the decay of Types B and Y in the South Party Wall (this chapter, Section 2). In Figure 22, the facing at the far left is the Type X part of the compound jamb, with the exposed Type C core concrete projecting out behind it, leaving a sort of cast of the spoliated stone door frame. I later cite other evidence to distinguish Type C from the Neronian project, but here it is crucial to note that Type C and Type X are also fundamentally different from each other, with Type X's decoration completed before Type C was built. Thus, Types X and C are not construction steps within one project, and Type X is distantly pre-Neronian, with Type C intervening.

Type C as It Relates to Types X and E in Room 52

The pre-Neronian function of the area of Room 52 cannot be reconstructed, but it was more important then than in the Neronian period, when Room 52 was merely a secluded spandrel. The Type X project, as we have seen, had a doorway to this area in the northwest end of Rooms 65, proving that people needed to go there in that phase. In the Type C project the same was true, so a doorway was built into the north side of Corridor 62 for Room 52. Notably, there is not an original Type C doorway into the Neronian Corridor 50. So, when Type C was built, the area of Room 52 mattered enough to be accessible, whereas the area further west that would later be occupied by the Neronian Nymphaeum Suite

either did not matter or, more likely, was completely occupied by the standing rooms of Types B and Y. That means the Neronian design is different from and incompatible with the situation that had existed when Type C was added to the south side of Room 52. That situation changed diametrically in the Neronian period, when Corridor 50 became the main artery in this area and a doorway was cut through the Type C wall at the south end of it. Again, Room 52 confirms that Type C is not Neronian.

Type C as It Relates to the South Party Wall and the Neronian Nymphaeum Suite

Although the south side of Room 52 is also part of the South Party Wall, its masonry evidence functions somewhat differently from the rest of the South Party Wall sequence, so I treated it separately, leaving the Type C phase in the rest of the South Party Wall to be considered in due sequence here. Given the pre-Type C phases described in Section 2 and the evidence in Room 52, this is simple. When the Type C architect arrived on site, there was a slightly oblique group of rooms in the Type Y and Type B area of the South Party Wall, as indicated in Figure 6, as well as the Type D and Type X projects in the Pentagonal Court area (Fig. 11). Type Y in the area of Rooms 56–58 is the only possible complexity, because Type Y originally did have rooms on the south side of the South Party Wall in this area (Fig. 6). If these had decayed by the time the Type C architect arrived on the site, then the description in the next paragraph is all there is to his design process here. Otherwise, he had to raze the Type Y remains on the south side of the South Party Wall to make way for his own design.

In any case, whether or not the Type C architect had to raze part of the Type Y project, his intentions are clear enough (Fig. 11); he simply built his own line of rooms, oriented precisely east-west, right across the south end of the irregular south edges of Type X and the South Party Wall. In the area of Rooms 52 and 65 the interface consisted of an irregularly shaped mass of solid masonry, one corner of which was left hollow to form Room 65A (Fig. 20). The Type C architect insisted on rooms of fine, regular shape. That is, he was not willing simply to abut them to the oblique south side of Types B and Y, giving them angled north ends. Instead, he put in Corridor 62 to intervene between the South Party Wall and Rooms 59–64, so they could all be rectangular, and he put solid irregular masses of masonry between Type Y and Rooms 56–57. In the latter case he also took decorative advantage of the mass of solid masonry by putting a shallow apse at the north end of Room 56 and a rectangular alcove at the north end of Room 57.⁹¹

The construction of Type C was organized differently from Neronian practice. The latter is described presently, but the main point for now is that Neronian construction was organized such that every corner in a given project had inter-leaving bricks, a bonding configuration, regardless of how the project was divided into construction steps. Type C, in contrast, was built in discrete steps, with clean seams left visible between them in the corners of the rooms. In the East Suite these appear in the northwest corners of Rooms 56 and 57 and the northeast corner of Room 60. The northwest corner of Room 58 is illegible, whereas Room 59 bonds all around. In Rooms 56, 57 and 60, the procedure was to build upside-down, L-shaped wall segments next to each other from west to east. Whether these are completely discrete building steps (i.e., not bonding in the core concrete behind the seams) or simply the division of the work between different gangs of brick masons (whether the core concrete bonds or not) cannot be determined, but in either case this is certainly not the way that work was organized in Neronian procedure. There were originally more rooms to the west of Room 56, the last part of which was the L-shaped segment consisting of the wall between Rooms 36 and 56 and the bonding north end wall that originally intruded into the area of Room 36 (the room is reconstructed on Fig. 11). The next L-shaped segment consisted of the north and east sides of Room 56, bonding together. The northwest corner therefore does not bond, with the north end of the room abutting the west side. Then the process was repeated in Room 57, with the north and east sides of Room 57 forming a bonding L-shape, abutting the L-shape from Room 56 in the northwest corner of Room 57. The piers forming the south corners of Rooms 56–60 are integral units, of course, separate from the L-shapes forming the main walls. It is not clear how the work was divided in the walls above lintel level. This typical Type C practice of L-shaped segments and clean corner seams also appears in Room 119.

At the end of Section 2, I described the Type C and Neronian phases of the South Party Wall. That evidence indicates that Type C is the third masonry phase in the South Party Wall (Fig. 17.2), with the decay of Types B and Y being the fourth (Fig. 17.3). The chronology of that fourth phase is crucial. It is definitely later than Type C, both because it was not an intentional design element for the Type C project and because if the earlier masonry of the South Party Wall had already decayed, then the north side of the Type C fabric would have had to be brick faced, there being nothing there against which the core concrete could be laid. Because the Type B and Type Y walls were there for the Type C masons to lay their core concrete against, their subsequent decay is clearly later than Type C. By the same token, the decay of Types B and Y was clearly not part of the intentions

of Severus and Celer, creating ugly, complex shapes that had to be laboriously corrected in the Neronian project (Figs. 17.4 and 17.5). So the decay of Types B and Y puts both a chronological and a conceptual interval between Type C and Neronian phase 1, the fifth phase in the South Party Wall. In sum, Type C is not only earlier than Neronian phase 1, but also distinctly so. The distinctively non-Neronian construction practices of Type C and the evidence from Rooms 52 and 65 therefore confirm the chronology already described in the South Party Wall.

Type C as It Relates to Neronian Phase 1 in Room 36

The fact that Type C is both earlier than Neronian phase 1 and different from it is most obvious in the relationship between Type C in Room 56 and Corridor 61 and Neronian phase 1 Type E in Room 36 (Figs. 11, 20, 23 and 24). The masonry evidence in Corridor 61 is Byzantine,⁹² but luckily the portions that matter for establishing the relative chronology of Types C and E are clear. As originally constructed, Corridor 61 consisted only of the north and south sides, with doorways in the south side corresponding exactly to the doorways of Rooms 56–60 (but not to their *hypaethrae*). Later a series of cross walls were inserted, marked with dashed lines on Figure 20. These did not block the corridor in any way because they exist only from lintel level up. The lintels, in concrete with flat arches, were set into holes roughly cut into the north and south sides of the corridor. The holes are always next to existing door jambs, undoubtedly for the sake of easy accessibility both when cutting the holes and when setting the ends of the flat arches into them. The relative chronology of all of these steps is obvious because of the fact that the Type C side walls were completed first and then cut into for the cross walls. The south side of Corridor 61 therefore established the location of the Neronian West Block façade, but the south side wall of Corridor 61 is not itself a Neronian revision to the East Suite. Instead, at the west end of Corridor 62 one can still make out the holes for one of the inserted cross walls that originally reached to the south from the southwest pier of Room 56. This was razed to add the Neronian phase 1 Type E masonry that forms the southeast part of Room 36 along with the rest of the Neronian West Block. As a result, the Neronian Type E not only blocks the end of Corridor 61, but also fills in the holes that were originally cut for the deleted cross wall in that location. So, here again Neronian masonry is not only later than Type C, but is also later than a modification that had been made to the Type C project before Nero's work began.

Inside Room 36, the relative chronology of Types C and E is even more obvious (Figs. 20, 23 and 24). Type C had at least one more room to the east of Room 56,



23. Room 36: The north half of the east side. L–R: Post-Neronian door and window cut between Rooms 36 and 37; vertical scar where a bonding Type C wall was razed, at the top of which the Type C material has fallen away, exposing the Type Y facing imbedded in the wall; Type C wall (with its facing retained at the bottom); Window to Room 56 (right edge of the photo).

whose east–west end walls are indicated on Figure 20 with long dashed lines. One room in this location is reconstructed, tentatively, in Figure 11, but the actual Type C design, including the number of rooms involved or their westward extent, cannot be reconstructed. Regardless, Room 56 was the westernmost Type C room that Severus and Celer wanted to keep, and everything else to the west of it was razed. This left scars in the east side of Room 56 that appear in Figures 23 and 24. The northern Type C cross wall bonded to the east side right where the original Type Y transverse wall was imbedded in the Type C masonry (Fig. 16.3), so when the cross wall was razed there was only a thin sliver of Type C masonry left over



24. Room 36: The south half of the east side. L–R: Window to Room 56 (left edge of photo); Type C masonry surrounding the doorway to Room 56, including the lighter facing forming the south (right) jamb; vertical scar where a bonding Type C wall was razed; seam between Type C (pre-Neronian) and the Neronian phase 1 Type E added to the south (right) of it, continuing to the far right edge of the photo. The meter is on the Type E next to this seam.

the Type Y facing. Because the Type C could not bond firmly to the imbedded Type Y facing, a portion of it fell away, probably during post-Neronian spoliation, exposing the Type Y facing beneath the surface (Fig. 23, just right of center).

Furthermore, to the south of the doorway between Rooms 36 and 56 (Fig. 24), the Type C facing is intact in the south (right) doorjamb, until it reaches the point where the original cross wall projected out to the west (towards the camera in Fig. 24). The scar left when the Type C cross wall was trimmed away is obvious in the photo, with the straight seam next to it (to the right) where the later Neronian

Type E abutted the imbedded Type C facing (in the photo the meter hangs just next to this seam).

So, here in Room 36, more obviously than anywhere else, the fact that Type C is both earlier than and different from the Neronian palace is established. Not only were the designs incompatible, but also some of the Type C rooms got in Nero's way and had to be razed. The common suggestion that these two masonry types are merely construction steps within a single Neronian building project is untenable.⁹³

The issue of terrace retaining walls is important for Type C in the area of Corridors 92 and 93 (next entry), so a word is appropriate here too, demonstrating that the situation was analogous on both sides of the Pentagonal Court. After centuries of prior occupation on the Oppian Ridge, all Imperial-period construction had to have previous architectural remains both below floor level and on the uphill side. There may never have been a terrace retaining wall built specifically for the East Suite, however. The area had already been cleared for the Type B and Type Y projects. It is unclear whether these had their own terrace retaining wall. More likely the Type D project continued farther west than Room 45 and served that function for them (Fig. 6). In the area of the East Suite proper, therefore, the issue of a terrace retaining wall is both moot and inconsequential; it was taken care of by standing buildings farther north, so the Type C architect did not need to consider the issue. The complexity begins west of Room 56. The Type C project continued to the west, which Type Y had not. Nothing can be reconstructed here, but the Type C rooms apparently stood alone. They must have had a terrace retaining wall to the north, whether or not it was nearby and whether or not it was part of another construction. The north side of Corridor 19 is a good candidate, both because it is demonstrably pre-Neronian and because its masonry has brick thicknesses and densities as for Type C, not Type E (albeit too encrusted to read reliably; see Chapter 2.1). Corridor 19 and the East Suite are too far apart to be related to each other securely, and the odd channels in the north side of Corridor 19 (Fig. 11) seem to indicate that the pre-Neronian building in the area of Corridor 19 was much different in nature from Type C, but the Type C project certainly was built on an open terrace and the north side of Corridor 19 may well have created that terrace. The Neronian West Block, then, was one step later, reusing the same terrace.

Type C as It Relates to Corridors 92, 93, 141 and 142

In its Neronian guise Corridor 92 is obviously an access corridor for the service staff and was decorated accordingly. Corridor 92 is also similar to Corridor 19

in that it serves as an environmental buffer, separating the East Block from the dank terrace fill to the north. The usefulness of Corridor 92 is obvious, providing the shortest possible route from the Pentagonal Court to the east side of the East Block and whatever else was to the east of that. Since the internal rooms of the East Block (94–115) were dark and secluded, probably not intended for extended use, they were not provided with direct access to Corridor 92. The *sellaria* and service rooms and corridors on the east and west edges of the East Block had easy access, however. Even though Corridor 92 was dark by the standards of the *sellaria*, it provided such convenient passage between important areas that Nero probably used it too. The Neronian guise of Corridor 92 therefore requires little explanation; it is entirely logical in layout and the Neronian masonry is perfectly canonical in technique.

The masonry of Corridor 92 is not entirely Neronian, however, and the pre-Neronian elements are more challenging. I have already noted that it was impossible to build on the slopes of the Oppian Ridge without having remnants of previous buildings both underfoot and buried in terrace fill on the uphill side. If these remnants already included a suitable terrace retaining wall, there is no point in building a new one. Corridor 92 is another example of this phenomenon, including pre-Neronian remnants whose difference from the Neronian project is confirmed not only by the different masonry techniques, but also by the fact that the original design changed when the Neronian East Block was built up to the earlier retaining wall. Corridor 92 is yet another major feature of the Neronian Esquiline Wing created by adding Neronian masonry to pre-Neronian remnants.

There are three main masonry passages identifiable today in Corridor 92 (in addition to the intruding Room 86 from the Type D project), as well as some inexplicable complications and considerable passages not legible because of well-preserved plaster. Most of the north side is apparently all one project, certainly all pre-Neronian, with the Neronian structures tucked in around it at both ends. The majority of the north side, between Rooms 86 and 141, was a terrace retaining wall with no apertures.

CORRIDOR 92, PHASE I. The earliest masonry is in the eastern part, including the area of Room 141 and some of Corridor 142, but the seam between this and the distinctively different masonry of the west end of Corridor 92 is obscured under frescoes. At the east end of the pre-Neronian north wall is Room 141, which was built up to the north side of the wall, not bonding with it. Room 141 also exposes the base of the north side of Corridor 92, revealing that it was founded at a much lower level than the Neronian East Block. Room 141 also has a monochrome white mosaic floor at this lower level. In contrast, the south side of Corridor 92

(by Rooms 103–112) was founded at the standard Neronian level. Room 141 only became a staircase in the Neronian period, and the small doorway between it and Corridor 92 was cut through the wall to accommodate the staircase.⁹⁴ Originally, however, Room 141 extended farther east and had a large doorway near the south end of Corridor 142 (in Fig. 69 the unhighlighted masonry at the southeast corner of Room 141 formed the west jamb of the pre-Neronian doorway). Then, in the Neronian period, when Corridor 142 was added, it was inserted awkwardly around the remnants of Room 141's original doorway, passing under the lintel and, as far as can be told, displacing the east jamb entirely. Corridor 142's Neronian doorway is therefore smaller and farther east than the original doorway of Room 141. Otherwise, the pre-Neronian design in the area of Corridor 142 cannot be reconstructed, swept away by Neronian construction.

CORRIDOR 92, PHASE 2. Phase 2 is at the west end of Corridor 92, including both the north and south sides. The center of Corridor 92 is illegible, however, covered with frescoes on the north side and obscured by the ramp for the Neronian waterworks in Room 102 on the south side (Figs. 25 and 69). The north side may therefore have masonry complications of either pre-Neronian or Neronian date, whereas the south side is problematic only in so far as the eastern extent of pre-Neronian phase 2 cannot be reconstructed, having been swept away by the Neronian masonry in the area of Rooms 102–112.

The phase 2 masonry may be part of Type C, or shortly before. It is not a masonry reading that makes this chronology possible, but rather the fact that the Type C parts of the East Block (Rooms 96 and 116–119) used the west half of Corridor 92 as a terrace retaining wall. So the west half of Corridor 92 must be earlier than, or part of, the Type C project. On the other hand, the masonry techniques of Corridor 92's phase 2 are unique in the Esquiline Wing. The bottom parts of the walls are of unfaced concrete, cast in canonical formwork with the vertical beams inside. The unfaced portions rise well above the Neronian floor level, to a height of some 2 m, at which level the brick-faced part of the wall commences (Fig. 25; the unfaced material rises almost to the level of the preserved frescoes). The unique masonry technique is sufficient evidence to link the two sides of Corridor 92 chronologically, but the facing is not accessible, both out of reach and obscured by frescoes. The unfaced foundations are considerably fatter than the *opus testaceum* above, as indicated in Figure 69. The Neronian Type F masonry of Rooms 93, 97 and 100 does not bond with the south side of Corridor 92, but abuts both the unfaced foundation material and its facing bricks above the 2-m level. That is, west of the cascade the south side of Corridor 92 stood to full height before the East Block was built up to it. The whole Type C project in



25. Corridor 92: The south side of the west end, looking southeast. The wall is Type C (or earlier) and the windows are the skylights cut through it when Rooms 93–101 were added to the south of it in Neronian phase 2. The ramp for the water cascade in Room 102 appears in the distance at the left.

the East Block will be reconstructed later, when the evidence from Room 91 and Corridor 96 is presented, but for now it is sufficient to note that in the Type C project Corridor 92 was the north side of an open space between Corridors 92 and 96, like a small *cortile*, which was only later occupied by Rooms 93–95. It is not clear how Corridor 92 was lit at this point, but it did not have windows in the south side opening into this *cortile*.

CORRIDOR 92, PHASE 3. The third phase of Corridor 92 is Neronian phase 2, consisting of the east half of the south side (Fig. 69). This, too, is entirely covered with frescoes, so the masonry type cannot be read, but it has typical Neronian

foundations and the wall is set at the Neronian floor level. Most important, it bonds with the adjacent Neronian rooms (this is certain for Rooms 103 and 112, probable for Rooms 105 and 107), making it an integral part of the Neronian East Block.

Although phases 1 and 2 have some chronological ambiguities in their masonry, none of these had any bearing on the Neronian project. Severus and Celer found a standing terrace retaining wall and part of a corridor next to it, which they could put to good use. It did not matter to them who had built them, when, or in how many steps. They kept what they needed, razed the rest, and built their own East Block design up to the parts that they kept.

At the west end of Corridor 92 there had previously been nothing built to the south, but in the Neronian design Rooms 93–101 were inserted here. Predictably, the later Neronian masonry abuts the south side of Corridor 92, as indicated in Figure 69. This chronology is confirmed by the configuration of the windows between Corridors 92 and 93 (Fig. 25). The windows are not original to the wall, but were cut through it, angled sharply upward to collect light from Corridor 92's skylights. This makes perfect sense; in the phase 2 (Type C?) project the open *cortile* in this area had no need for light from Corridor 92, so the south side of Corridor 92 was built with no windows in it. Only with the insertion of the Neronian East Block (Corridor 93 and Rooms 94–101) was this area vaulted at all, and only then did this area need a light source. These rooms, set well back from the East Block façade, were obviously dark. More important, because Nero's architects were reusing pre-Neronian remains, some awkwardness in the design is almost inevitable. Rooms 94 and 95 were spacious and reasonably well lit via Room 90, but Corridor 93 around them must have been awful, both cramped and dark. Corridor 93 was necessary, however, because without it servants moving west from the Octagon Suite would have to pass through the fine Pentagonal Court rooms obviously intended for Nero (Rooms 83 and 87–90). Although one does not suppose that Nero much cared about his slaves' comfort, the efficient delivery of his dinner was another matter, requiring that slaves be able to negotiate the corridors without mishap. At least some light was required in Corridor 93, and Corridor 92's south-side windows were cut for that purpose. The skylights in Corridor 92 provide only paltry lighting, and only a fraction of that would have reached Corridor 93 through these windows, but so long as the slaves performed their duties quickly, it was enough.

Interestingly, the east half of Corridor 92 does not have corresponding windows to light Rooms 103, 105 and 107. Severus and Celer knew these rooms were inconsequential from the start, not even needed as a service passage. The rooms

that actually were used in this area are Rooms 112–115, again primarily as an access corridor for the servants and just adequately lit via Rooms 132 and 135.

Type C as It Relates to Neronian Phase 2 in Room 91, Corridor 96 and Rooms 116–119

The fact that the Southwest Quarter (Corridor 96 and Rooms 116–120; Figs. 11 and 69) is a remnant of the pre-Neronian Type C project was noted earlier in this chapter. The design details of the rooms match Type C norms, not their Neronian counterparts. Similarly, we saw in Chapter 1.4 that the decoration in Room 116 is not Neronian either, and the masonry sample matches Type C – definitely different from the denser and neater Neronian Types E and F. There remain, then, a few crucial details of the masonry and decoration to confirm that the Southwest Quarter was reused from a pre-Neronian building. The evidence is complex but also substantial and consistent.

The design of the Southwest Quarter is not complex and is readily understood from the plan. The Southwest Quarter and the east end of the East Suite (Rooms 56–64) match each other in design, structure, masonry type and construction techniques and, saliently, they are different from Neronian practice in these categories. All rooms in the Type C project are longitudinally barrel vaulted and the long flat arches over the doorways are fortified by travertine imposts (Rooms 64 and 116). The distinctive Type C design features found in the East Suite appear here too, including the fact that Rooms 116 and 119 had, respectively, an alcove and a shallow apse in their back walls (Fig. 26), plus typical *hypaethraea* just above their large doorways (see Fig. 27 for Room 116; most of the *hypaethraeum* in Room 119 is covered by Neronian frescoes). These Type C *hypaethraea* and those from Type D are the only examples in the Esquiline Wing, so clearly *hypaethraea* are not a Neronian usage, but typical of the pre-Neronian designers.

On the other hand, the Southwest Quarter has one interesting design anomaly, the fact that Room 116 is much shorter than the pendant Room 64 in the East Suite. The exterior designs (large doorway and *hypaethraeum*) are identical – as they needed to be, because these are the features that balanced each other in the Type C scheme to regularize the area later used in the Neronian Pentagonal Court. During the Type C project, however, there was apparently other, pre-Type C architecture in the area later occupied by the Neronian East Block. In order to put Room 116 in a position to regularize the open area and still have room to the east for Rooms 118–119, Room 116 had to be compacted into a strangely small space (east to west), enough so that the width of the main room (excluding the alcove) is



26. Room 119: Overview to the north. At the top of the photo is a tile arch with the conch below it. The decoration remnant from pre-Neronian Type C is at the top of the conch, a small patch darker than the more voluminous Neronian decoration that covers it.

actually greater than its length. This makes the room's space somewhat awkward, not least because the north-south axis of the main room's rectangle is perpendicular to the east-west axis of the vault, alcove and exterior doorway. I emphasize the pre-Type C remains here (the evidence from Type D indicates that that design had rooms in the area of Rooms 94–101 that faced southeast into this area) because Severus and Celer felt no such spatial limitation when they designed their East Block. They razed everything to the east of the Type C rooms they wanted to keep. So, had Rooms 116–119 been designed as part of the Neronian project, there would have been ample space to make Room 116 as commodious as they pleased; certainly there would be no point in constricting it to its current odd shape. That oddity is not of Neronian origin, however, but a relic of earlier circumstances



27. Room 116: Overview from southeast to northwest. The window at the left edge is the *hypaethraeum*, with Trajanic Type M fill in the *sellarium* doorway below it. The open doorway to the right leads to Corridor 96.

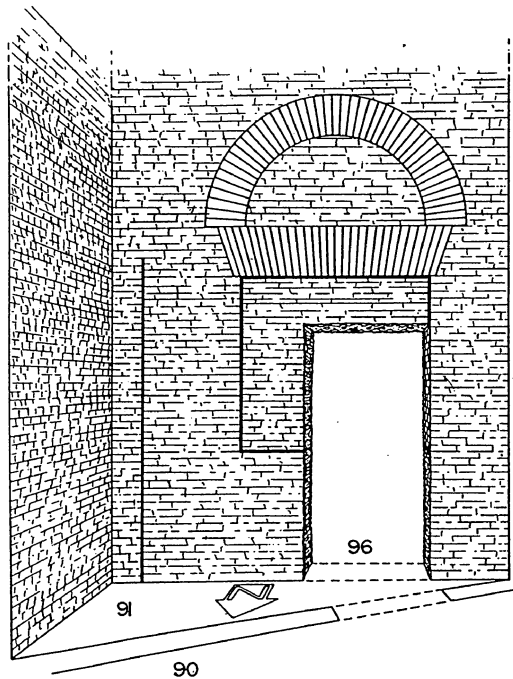
retained only because the Type C outer edges of the Pentagonal Court served an important function in the Neronian design and had to be kept, their oddities notwithstanding. When Severus and Celer then created the Southeast Quarter (Fig. 69, Rooms 129–135), they reflected the Type C design of the Southwest Quarter, but made the rooms more spacious according to their own needs (described later). Most likely Room 134 was also made more spacious, rather than perpetuate the strange shape of Room 116, but that cannot be proved because Room 134 is inaccessible.⁹⁵

Type C construction methods recur in the Southwest Quarter, in that the work was divided up into L-shaped segments, with abutting seams in the inner corners of the rooms. The northeast corner of Room 119 is the only accessible example

in the Southwest Quarter, analogous to the northwest corners of Rooms 56 and 57 and the northeast corner of Room 60. All corners of Room 116 and the north corners of Room 118 are obscured by plaster, however, so their participation in this system cannot be evaluated.

Two crucial masonry passages establish the chronology of Type C relative to the Neronian Esquiline Wing. These are the wall between Room 91 and Corridor 96 and the north end of Room 119. For the former, the best place to see the evidence is in the south side of Room 91, illustrated by Figures 12 and 28. As previously noted, the area of Rooms 87–91 was hypaethral during the Type C project, bounded on the south by Corridor 96, including this wall (Fig. 11). The masonry in the south side of Room 91 is almost entirely Type C, whereas the rest of the north side of Corridor 96 is Neronian Type F built up to it (the south ends of Rooms 95 and 99). The south side of Room 91 is heavily encrusted, so a drawing (Fig. 28) illustrates the evidence better than do photos.⁹⁶ The seam between the two masonry types is near the southeast corner of Room 91 (at the left edge of Figure 28). At the west end of Room 91 there is also a corresponding seam between Types C and F visible from within the Pentagonal Court, as indicated by the shading in Figure 69. The Type F of the Northeast Group overlaps the Type C to the south. In order for the Type F facing to overlap the Type C at this shallow angle the Type F bricks appear to have been specially made, with more acute points to fit the need in this area.⁹⁷

In its original Type C design the north side of Corridor 96 had a window and a door. The doorway was mostly in the area of Room 95, as indicated in Figure 11, but its west jamb appears just inside Room 91, in the southeast corner (the left corner in Fig. 28). The fabric to the east (left) of the jamb is Neronian Type F, bonding with the east side of the Room 91. The Type F filled the doorway, abutting the jamb and leaving the seam visible in the southeast corner of Room 91. The original lintel and all of the masonry above it were replaced by Type F too. The remaining Type C masonry is the jamb itself and everything to the west (right) of it, that is, most of the wall shown in Figure 28. The Type C design had a window whose relieving arches and outline can be seen in the illustrations. The window was filled in at a later date, but before the Neronian period, which is why it is stippled in Figure 11. Then, later still, the Neronian doorway was cut through the wall, cutting both the fill in the window and the wall below the sill. The Neronian doorway was both narrower and lower than the window, placed so that the west jamb was in line with the west side of the window. As Figure 28 indicates, the top of the west (right) door jamb is smoothly faced, left over from the window. Below sill level the wall itself had to be cut, leaving exposed core



28. Room 91: Schematic elevation of the south side. The doorway cut through the fill in the window leads to Corridor 96 (cf. 12).

concrete to form the lower jamb. The east jamb was not as far east as the original east side of the window, so its jamb cuts the wall below sill level and it cuts the fill in the window above sill level. The east jamb is therefore exposed core concrete from top to bottom. The top of the doorway was not cut high enough to reach the relieving arches from the original window, so the doorway itself has no relieving arches, just exposed core concrete from the window fill. The flat arch lintel for the window itself then appears at a higher level.

The Type C window indicates that the north side of Corridor 96 was an exterior wall. There was open space to the north, with the door and window opening onto it. The original Type C doorway (the one in the east corner of Room 91) would not be informative by itself because it could have opened into another room, but the window is a different matter. Windows virtually never open from one room interior to another, but almost always open to the outside, to light the interior. This is especially true in the Esquiline Wing, where purely interior windows only occur in extreme situations and are always associated with evidence to explain why they exist.⁹⁸ There is no evidence to suggest that this Type C window existed in exceptional circumstances. It opened to the outside to help light Corridor 96.

On the other hand, this north-facing window would have provided relatively little light, certainly much less than the doorway at the west end of Corridor 96, so the window was found to be superfluous, in the pre-Neronian period, and filled in. More important, the window was filled for the purpose of blocking the window completely, not to accommodate the later doorway. The doorway was not built into the window fill, but rather the whole window was filled and the concrete cured before the doorway was cut. Here again is an intervening step between Type C and the Neronian palaces, a step that is contrary to the original design of Type C and incompatible with the Neronian design.⁹⁹

More important, the obvious Neronian motif for the Pentagonal Court is for the *sellaria* around its perimeter to be linked by doorways just inside the façade, allowing passage all the way around the court. Nero passed between brightly lit and splendidly decorated *sellaria*, while the slaves used the dark, much less decorated passageways behind them. Corridor 93 is particularly miserable. Stepping into it from a bright *sellarium* would leave the viewer blinded; certainly it was never intended that Nero would use it. A solid south wall in Room 91 would have forced him to do so. Obviously Severus and Celer never had any such intention. It was more like them to design too many doorways, especially if doorways are a key aesthetic motif in their design, as here (most obviously in the West Suite; Chapter 4.2). So, in the Neronian conception of the Pentagonal Court a doorway is an obvious necessity here. The fact that the doorway is not original to the north side of Corridor 96 confirms that this is a remnant from a pre-Neronian phase.

The last distinctive evidence that the Type C project is pre-Neronian appears in Room 119 (Fig. 26 and 69). Room 119 is analogous to its counterpart in the East Suite, Room 60, in most of its design details and in its small size relative to the more spacious Neronian rooms. The key detail is the apse at the north end. The apse was originally designed in harmony with the rather small scale of the Type C project and was originally decorated with frescoes like the rest of Type C. There are two key points concerning this decoration. First, it was stylistically different from the Neronian program that replaced it and, second, it did not include revetment. In the Neronian period the Type C frescoes were removed from the walls and replaced with revetment up to the springing line of the vaults. Everywhere in Room 119 except the apse this means that there is no trace of the original decoration at all. The Type C apse, however, had been built without any consideration for the later Neronian decoration and, as it turned out, the large Neronian revetment panels did not fit into the diminutive apse. In order to fit the panels into place, vertical grooves had to be cut into the apse facing and the edges of the revetment panels were set into them. Enough of the bedding mortar for the revetment remains in

place to confirm that this was the ultimate configuration, as indicated in Figure 69. Interestingly, because the rest of the East Block to the east of Room 119 was all one Neronian project, problematic details in the Type C parts that Severus and Celer chose to retain did not need to be perpetuated in their own design. In the overall symmetry of the Neronian East Block Room 129 is pendant to Room 119, but Severus and Celer made its apse on a slightly larger radius, so that revetment panels of the same size as in Room 119 could fit into it without needing to cut channels for their edges. As a result, even though the concrete apses of Room 119 and 129 are different in size, the exposed outer surfaces of their revetment were identical.¹⁰⁰

The conch in Room 119 also reveals both phases of the frescoes. As Figure 26 shows, the elaborate Neronian conch frescoes were a fancy shell motif. These were painted over their simpler Type C predecessors. The Neronian decoration at the top of the conch fell away, however, revealing the earlier motif below.¹⁰¹ The earlier frescoes in the conch undoubtedly belong to the earlier Type C masonry phase, when the whole apse was decorated with frescoes. When the Neronian revetment was installed, the surface of the apse changed, stepped out from the wall surface by as much as 15 cm in the centers of the revetment slabs. The conch decoration had to be stepped out to correspond to the new surface and, at the same time, was made much fancier so as to match the grandeur of the Neronian scheme generally.¹⁰²

We return, finally, to Corridor 96 for the last bit of evidence concerning Room 119. Within Room 119 the construction procedure was normal for Type C, including dividing the work into L-shaped segments as described earlier. In Room 119 there is one complete L-shaped segment consisting of the north end and the bonding west side. There is, accordingly, a nonbonding corner in the northeast. Unlike the rest of Type C, however, the east side of Room 119 is a Neronian Type F replacement for the Type C wall that had been there previously. This Neronian wall is an integrally bonding part of the Octagon Suite, built up to the Type C group of Rooms 116–120. The northeast corner of Room 119 is still a neat, nonbonding seam, because that corner never bonded, even as originally built in Type C, so razing the east side was easy, falling cleanly away from the north end. The Neronian Type F facing of the new east side could then be laid up to the Type C corner as neatly as the original Type C had been. Indeed, if we only had evidence from Room 119, there would be little reason to expect that the east side was not still the original Type C, despite the clearly greater density of its Type F facing.

In Corridor 96, however, the situation was rather more complex. The Type C component of Corridor 96 all bonds together integrally. This includes the

south side of Room 91, the west end of Corridor 96 (both west corners bond), the north side of Room 116 and the north end of Room 119. Opposite to the northeast corner of Room 119, however, there is a vertical crack in the facing of Corridor 96's south side. There is obviously Type C masonry to the west of this and notably denser Neronian Type F to the east.¹⁰³ As far as archaeological evidence goes, this is all clear and informatively consistent with the evidence from within Rooms 116–119. The exact Type C configuration of the south side of Corridor 96 to the east of this crack cannot be reconstructed, but its facing obviously extended farther east than the northeast corner of Room 119. Then, when the Type C walls east of Room 119 were razed to make way for Nero's Octagon Suite, the Type C of the south side of Corridor 92 was broken off, roughly, in the area of the northeast corner of Room 119. That location was necessary because that had been the location chosen for the back of Room 122, as part of the outer perimeter of the Octagon Suite (Fig. 69). The Neronian Type F was then built up to the Type C, neatly in the case of the already clean seam in the corner of Room 119 and roughly on the south side of Corridor 96 where the Type C facing bricks had been physically broken. Because Corridor 96 was never more than a service passage in the Neronian scheme, and because the east end of it led nowhere (it was essentially a spandrel), a neater treatment was not useful in Corridor 96. The typical Neronian service corridor decoration then covered the crack and Nero undoubtedly never knew it was there.

The crack in the south side of Corridor 96 is problematic nevertheless. Some scholars have been keen to interpret the whole Esquiline Wing as being entirely Neronian and, if that is one's hypothesis, then the evidence from Type C is inherently problematic, proving that hypothesis wrong. As a result, scholars working from that thesis have been at some pains either to dismiss the crack as inconsequential¹⁰⁴ or to deny that it exists at all.¹⁰⁵ I trust the foregoing descriptions adequately demonstrate both that the evidence does exist, that it matters and that it is very informative if one looks at all of it, rather than selective bits. This crack does not exist in isolation, but is part of a vast ensemble of data related to the pre-Neronian Type C project.

4. THE NERONIAN PHASE OF THE PENTAGONAL COURT

Chapters 2–5 generally follow the masonry phases in the Esquiline Wing in chronological order, but I deviate from that for the Neronian contribution to the Pentagonal Court so as to complete the whole masonry sequence in this area.

In terms of both design criteria and masonry evidence, the Neronian phase of the Pentagonal Court is by far the easiest to understand and useful for reconstructing Severus and Celer's *modus operandi*. Perhaps oddly, however, the Neronian phase of the Pentagonal Court tells us little about the overall masonry chronology of the Esquiline Wing. This is primarily because Neronian phase 1 (the *Domus Transitoria*) did not include any new construction in the Pentagonal Court, but was confined exclusively to the West Block (Chapter 4). There is a reasonable likelihood that Severus and Celer had intentions for the Pentagonal Court area when they first laid out their design for the West Block, because Rooms 36 and 45 have doorways leading in this direction and the parts of the Pentagonal Court adjacent to the West Block were all pre-Neronian (Section 2 and 3 of this chapter) – that is, Severus and Celer did not need to build anything in the areas of Types X and C to use those rooms, even before they completed the Pentagonal Court motif in Neronian phase 2. Most likely, therefore, the *Domus Transitoria* project simply had not progressed any farther east by the time the fire intervened. Whether that was the case or not, there is no Neronian phase 1 masonry in the Pentagonal Court area.

Instead, all Neronian masonry in the Pentagonal Court is phase 2 Type F, all bonding together integrally, leaving a substantial chronological gulf between the pre-Neronian and the Neronian parts of the Pentagonal Court. There is therefore nothing the least bit tentative or ambiguous about the transition from the irregular pre-Neronian buildings to the overwhelming grandeur of Nero's palatial design. The old scheme, illustrated by Figure 11, was summarily abandoned and, despite the substantial reuse of earlier rooms, completely recast into the fundamentally different kind of ensemble that appears in Figure 12.

The Neronian phase 2 Type F masonry in the Pentagonal Court area comprises two main groups of rooms, the east half of the North Group (the east half of Room 80 and Rooms 81–83) and most of the Northeast Group (Rooms 87–91). These two segments of Type F masonry bond in the area of Room 83 (Fig. 12) by way of the south side of Corridor 79. The outer façade of the Northeast Group (Rooms 87–90) is entirely Neronian, contiguous from end to end, although it was applied across the front of the pre-Neronian masonry described in Section 1. Inside Rooms 87–90, the interface between the Neronian and pre-Neronian masonry is above lintel level of the small side doors, but it is not detectable because it is horizontal, indistinguishable from a conventional mortar band.

Masonry complexities like this are minor, however, and certainly do not obscure what Severus and Celer were doing in the Pentagonal Court aesthetically. They were the only architects who ever conceived of a huge design feature, completely

orderly and symmetrical when viewed from a distance. All previous phases had been conceived of by architects whose vision had been on the scale of individual rooms. The few exceptions were only marginally grander than that; the Type X architect had one symmetrical group of three *sellaria* centered on the larger Room 66, and the Type C architect tried to neaten up the whole area, somewhat, by flanking its outermost periphery with symmetrical groups centered on Rooms 64 and 116. Severus and Celer simply had to recognize what a grand feature they could make out of the irregular motley of standing shops and then figure out what they needed either to raze or to add to complete it. I suspect, largely on my own aesthetic judgment, but also based on the fact that the large, severe Neronian phase 1 West Court was apparently regarded as unattractive as originally built (Chapter 4.1), that when Severus and Celer turned their attention to the Pentagonal Court they did not want to make a simple rectangular shape here if they could avoid it. Something with greater design interest was required, plus it needed to have a clear axial direction because of the new relationship between the architecture and the Domus Aurea parklands that they were now creating to the south. The angle between Types C and X in Rooms 63–80 suggested part of such a motif, the great pentagonal shape that is now justly famous.

The Neronian parts of the Pentagonal Court are easy to isolate because the Type F masonry is well preserved and bonds together integrally throughout. The only exception is the façade, whose masonry is not always accessible. Severus and Celer needed a consistent and symmetrical façade around the whole perimeter of the Pentagonal Court, something not required by any prior architect, and their procedure in designing such a façade is clear. First, when an existing room had a motif that they liked and that was in good condition, they simply mirrored it on the opposite side of the complex. So, for instance, they liked the Type X design of Rooms 65–68, which they echoed (but did not perfectly match) in their design for Rooms 87–90. Similarly, in the North Group, the east side of Room 80 and the size and location of Room 81 were laid out so that they echoed the Type X Rooms 76 and 80.¹⁰⁶ Second, to overcome obstinate irregularities, they made their own façade in front of existing pre-Neronian rooms, guarantying that motifs that needed to appear to match would do so, Room 88 being the obvious example.¹⁰⁷ Severus and Celer obviously went about their work thoughtfully and systematically.

Neronian Masonry in the Northeast Group (Rooms 87–91)

The Neronian masonry in the Northeast Group is unexceptional, with the Neronian parts being obvious. There are just a few interesting but inconsequential

peculiarities. The configuration of this area during the Type C project is impossible to reconstruct in detail, but it was hypaethral and irregular in shape. There was apparently nothing at all in the area of Rooms 89 and 90, essentially a spandrel between whatever was left of Type D, the west end of Corridor 92 and Type C. This was certainly the most irregular area inherited by Severus and Celer. They only did three things in this area to convert it to their own design. First, and most obviously, they razed nearly everything in the area; anything that got in their way, possibly including a lot of Type C masonry, was cleared to make way for the whole East Block. This also included the Type D wall in the area of Room 89's apse. Second, they had already decided on their basic motif for the whole Pentagonal Court, including *sellaria* right around the whole perimeter. These required doorways from one to the next, and because the Type C north side of Corridor 96 had a solid wall (the Type C window, already filled in) where the Neronian design would need a doorway in the south side of Room 91, Severus and Celer had a door cut there. Third, they added their own masonry in the Northeast Group, more or less building the Northeast Group per se from scratch, echoing the Type X design of Rooms 65–68.

The resulting masonry peculiarities are predictable, including the south side of Room 91 described in the previous section. The other three are the Neronian component of Room 87, the northeast end of Room 90 and the northwest edge of the apse in Room 89. The first of these is important, but the others are merely curiosities that must be addressed only because their evidence is obvious and distinctive – and possibly confusing if left unexplained.

The masonry in Room 87 itself is fairly straightforward (Fig. 12), but it has implications for Rooms 88 and 92A, where the masonry chronology is less simple. We have seen most of the key elements in Chapter 2.2, however. These are the Type D façade wall shared by Rooms 84–86, originally including a large doorway at the southwest end of Room 86. The northwest jamb of that doorway still exists, buried below Neronian floor level and marked on Figure 12 with a dotted line. The southeast jamb of that doorway also exists and can be seen by tracing the northwest side wall of Room 88 back to the northeast. The side wall masonry abutted the Type D wall overlapping the original Room 86 doorway, so some of the Room 88 masonry passes under the lintel, imbedding the jamb of the Room 86 doorway (the resulting seam is marked on the plan). As already noted, this is definitely a pre-Neronian configuration, retaining the Room 86 doorway, only slightly narrowed, including its lintel. The Type D lintels correspond to a floor level about a meter below the Neronian floor, so the Type D lintels were too low for reuse in the Neronian period. The fact that the Type D lintel was retained in this phase confirms the earlier date.

More important, the Neronian phase not only has distinctive masonry that does not bond with the earlier phases, but also it represents a fundamentally different design concept, a design incompatible with the pre-Neronian configuration. The important room in the Neronian design was the tiny Corridor 92A, which links the large pre-Neronian Corridor 92 with the Neronian Room 83 to provide service access to the north and northeast sellaria of the Pentagonal Court. The masonry in Room 92A is Neronian Type F, integral with Room 83 and the rest of the Neronian North Group to the west of it. In Room 87 the Type F comprises the entire perimeter of the room, except for the pre-Neronian northeast jamb of the doorway to Room 88. Because Room 87 did not exist before this phase, the façade is probably an integral part of the Neronian design, bonding with the southwest corner of Room 83 and probably extending the entire length of the Northeast Group. The door and window designs are all of canonical Neronian types, all with their lintels built according to the Neronian floor level. In contrast, Corridor 92A still had the Type D lintel level at its east end. This had to be cut away to make the doorway higher for Neronian use. The triangular wedge of Type F masonry forming a solid spandrel between Corridor 92A and Rooms 87 and 88 indicates how Severus and Celer dealt with this problematic area. The Type D lintel was left intact at first, with the eastern point of the triangular masonry passing under it. The corresponding north side of Corridor 92, also of Type F masonry, was built parallel to the south side. This bonded contiguously with the east side of Room 83 and passed under the oblique lintel of Room 85's southwest doorway. The southwest doorway of Room 85 was inconsequential in the Neronian design and was simply left in this awkward configuration (Fig. 10 shows the obliquely oriented Neronian fill in the doorway). In contrast, the doorway left over from Room 86 had to be reused for passage between Corridor 92 and Corridor 92A, so its lintel was cut to the higher level of the Neronian standard. This was done fairly neatly, with the sides of the cuts aligned with the north and south sides of Corridor 92A (Fig. 12). Thus, because the triangle of Type F masonry forming the east end of Room 87 passed under the Type D lintel, continuing the south side wall surface of Corridor 92, some of the Type D lintel remained imbedded in the wall (also indicated on Fig. 12, in fine solid lines). In the context of the Northeast Group, the Type F phase of Room 87 is unsurprising, being no more than the Neronian masonry molded around the existing pre-Neronian remnants. The implications of this masonry in Corridor 92 are crucial, however, in that they demonstrate that the Type D project and, more important, the post-Type D side walls of Room 88 are not only pre-Neronian, but also disparate in function because they retained the Type D floor and lintel levels, unusable in the Neronian period.

The apse in Room 89 confirms the same chronology. As noted in Chapter 2.2, the Type D and related masonry in the area of Rooms 87–89 included the Type D façade of Rooms 84–86, which originally extended to the southeast into the area now occupied by the Neronian apse of Room 89. Because the pre-Neronian (but post-Type D) masonry of Room 88's side walls only abutted the Type D wall, when Severus and Celer razed the Type D wall it fell cleanly away from this nonbonding seam. In Room 89, therefore, the northwest edge of the Apse is of an odd configuration. The two masonry types are the pre-Neronian southeast side of Room 88 and the Neronian Type F of the rest of Room 89, including the apse. Because the pre-Neronian masonry was later than the Type D, it cleanly abuts the seam, a configuration that did not change when the Type D was removed in the Neronian period. Then, once the Type D wall had been removed, the Neronian Type F facing was built up to the pre-Neronian masonry of the southeast side of Room 88, continuing its surface into the Neronian apse of Room 89. Thus, the Neronian masonry is also later than the seam, cleanly abutting it. As a result, uniquely in the Esquiline Wing, the masonry evidence at this seam is as if both masonry types are later than the other. This is impossible, of course, but it is also illusory, explained by the intervening removal of the Type D wall. The most important result, of course, is the fact that this seam proves there was indeed substantial pre-Neronian activity in this area, confirming that the Neronian Northeast Group was inserted between remnants from several previous structures.

The northeast end of Room 90 is of little consequence, but interesting. Room 90 itself is unremarkable, but the fact that Rooms 94 and 95 were added behind it does have some implications. This was a fairly substantial space left over between the pre-Neronian Corridors 91 and 96 and the planned Neronian Octagon Suite. Rooms 94 and 95 are Severus and Celer's attempt to do something useful with this space, but they were apparently unsuccessful because of poor lighting. Room 90 participated in this scheme by having a large doorway spanning nearly the entire width of its northeast end. This admitted light directly from Room 90's southeast doorway into doorways in Rooms 94 and 95, located to take advantage of that light source. The original design of Corridor 93 in the area between Rooms 90, 94 and 95 was simply a sharp triangle of space, the spandrel created between the oblique orientation of the Northeast Group and the compass orientation of the East Block (labeled 93A on Fig. 12). The design of Corridor 93A makes sense as far as permitting the easy passage of light is concerned, but visually it was also a gross design. The odd design of Corridor 93A derives from the fact that it was never regarded as inherently important in its own right during the Neronian

period, but was neatened up later. As Figure 12 shows, the triangular spandrel was converted into a sort of apse for Room 90 (90A on Fig. 12) by adding three small segments of fill masonry around the periphery of the space. The masonry sample is too small to read, but the basic fabric seems to match the post-Neronian Type L fabric added between Rooms 44 and 45, probably dating to the reign of Otho (Chapter 1.3).¹⁰⁸ Because the securely identified instance of Type L was intended for aesthetic refinement, the fact that this material serves the same function here suggests it is also Othonian. It is certainly nonstructural, not even rising to the full height of the Esquiline Wing and not supporting any covering for the apse (90A). The openings to let light into Rooms 94 and 95 were retained, with the apse masonry tailored to look like a symmetrical pair of doorways radiating out through the apse.

Finally, there are several late Neronian or post-Neronian revisions in the Pentagonal Court area that can be listed without requiring explanation.¹⁰⁹ There are niches all around Room 89, obviously later than the Neronian Type F masonry they cut and clearly not belonging to a period of lowly reuse because they are rather fancy features (whether for cabinets, as for a library, or for statues), but they could belong as validly to late in the Neronian project or the Othonian revisions.

Many of the doorways leading from one *sellarium* to the next all around the Pentagonal Court were narrowed by having a small unit of fill added next to one jamb or the other. Whether this was the inner jamb or outer jamb seems to have been immaterial, and virtually never do these revisions result in the doorways lining up with each other (an inherent problem in the Pentagonal Court because the doorways themselves date to different design phases and do not, in fact, line up). These partial fillings are therefore rather odd, because they certainly do not result in greater regularity or consistency in the overall design (which they readily could have done), but they also seem to have been from a phase when an emperor lived here, with apparent remnants of decoration on the fill. Preservation is too poor to be certain on this point, however.

Neronian Masonry in the North Group (Rooms 80–83)

In the Neronian phase, the irregular hypaethral alley between Types D and X was subdivided and vaulted to become Rooms 72, 75, 77–78 and Corridor 79, the latter provided with standard Neronian skylights like the analogous Corridors 19, 92 and 142. Because this space was no longer hypaethral, and because the Neronian *sellaria* of the north group (Rooms 80–82) did not depend on it for light, Room 81 was not provided with a high skylight at the north end like that originally built in Room 76.

The location of the east side of Room 80 was easy for Severus and Celer to determine. They already knew the outer boundaries of their courtyard, which had already been defined by Type C. That, in turn, defined the axis of symmetry for the whole courtyard. Severus and Celer simply took the distance between the Type X wall between Rooms 76 and 80 and the axis of symmetry and put their own east side of Room 80 that distance again to the east of the axis. At least that was the general idea, although in fact Room 80 is slightly off center. As far as exact symmetry was concerned, Severus and Celer did not have the luxury of perfectionism in the Pentagonal Court area, because they had already inherited numerous minor irregularities from the pre-Neronian elements all around. In Room 80 the formula just described gave Severus and Celer the basic location and size of the large central room in the North Group, but they also had a clear interest in ease and speed of construction. To that end, they designed Room 80 according to proportions of their own choice, putting the east side of the room only approximately the same distance from the axis of symmetry as the west side, therefore setting Room 80 slightly west of center in the North Group. The disparity is only a matter of a foot or two, certainly not detectable from within the Pentagonal Court itself. Conversely it did not make sense to try to compensate for the offset of the whole room by shifting the doorway to the east, which would have been obviously irregular in appearance when viewed from within Room 80.

The Neronian construction methods in the North Group have been noted in Section 1. Certainly there was pre-Neronian construction in the area of Rooms 80–83, including elements from Types D and X, as well as the pre-Neronian revisions in the area of Room 88. The oblique wall buried under Room 80's north side was part of this (Chapter 2.2). Severus and Celer retained the Type X rooms to the west (Rooms 71, 73, 74, 76 and part of 80) up to the central axis of their Pentagonal Court design, which was marked on the north side of Room 80. Everything to the east of this was razed. The Type X of the north side of Room 80 was broken off to a rough, but vaguely vertical edge, and then the rest of the Neronian North Group was built up to it, leaving the great vertical seam in the middle of the north side of Room 80 (Fig. 15). The Type X vaults were retained in Rooms 71, 73, 74 and 76, but Room 80 became much larger in the Neronian design and had to be vaulted anew.

Room 80 is conspicuously the most important room in the entire Pentagonal Court complex, obvious from its location (Fig. 4), size, view and decoration. The latter is more a matter of preservation, however, because the entire Pentagonal Court Complex was decorated to the fine Neronian standard described in Chapter 1.4. Room 80 happens to retain this decoration, especially in its ceiling frescoes (Fig. 15), a spectacular program with figural *pinakes* in elaborate relief stucco frames.

Scanty evidence throughout the rest of the Esquiline Wing indicates that similar ceilings were common; Room 80 gives us a clear sense of our loss. Its popular name, *sala della volta dorata*, is well deserved.

Late Revisions in the Pentagonal Court

There was a phase of lowly reuse in Rooms 64–68, with *opus mixtum* filling the main *sellarium* doorways, whereas the windows above were left open for light and ventilation. Most likely these rooms were being reused as slave quarters or gladiators' barracks for the Flavian amphitheater and *ludi* just to the south. A crude white-ground decoration scheme was added in the East Suite, covering the contemporary fill in the doorway between Room 65A and Corridor 62. In Corridor 62 this has some simple fourth style motifs painted on it, whereas in Room 64 it is purely white (perhaps faded to that condition), but distinctive because a charming little chariot was scratched into the plaster of the south side wall. One suspects a bored gladiator amusing himself when his services were not required in the arena.

There were also some late revisions in Room 75 and in the area of Corridor 79 north of Room 81. Rough windows were cut through the walls above the north doorways of Rooms 76 and 81, cutting through the Neronian decoration scheme, indicating a date after these rooms had been abandoned by the emperors. In Room 75, the revision definitely included an inserted second floor, whose joist sockets are obvious, but the nature of the revisions north of Room 80 is unclear. Significantly, however, these are the easternmost revisions of any significance in the whole Esquiline Wing; the entire East Block never had a corresponding phase of lowly reuse.

FOUR



THE WEST BLOCK IN NERONIAN PHASES 1 AND 2



1. OVERVIEW OF THE NERONIAN WEST BLOCK AND THE WEST COURT

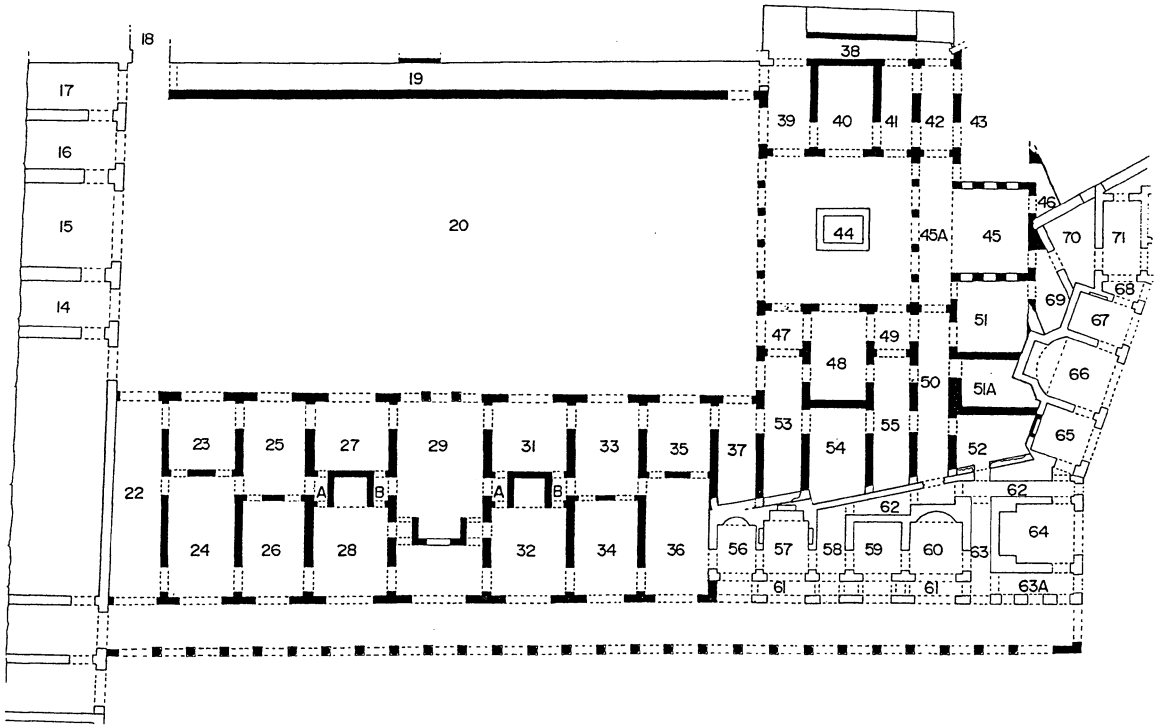
As Figures 6 and 11 indicate, Severus and Celer found a number of standing buildings in the area of the West Block when they began their project. For the most part, their procedure is easy to reconstruct, consistent with their practice throughout the Esquiline Wing. They had their own conception of what they wanted to build here, which, as I argue presently, was a reasonably canonical patrician *villa suburbana*. This design is most recognizable in the original Domus Transitoria project (Neronian phase 1), but was substantially modified in the Domus Aurea project (Neronian phase 2). Because Severus and Celer were creating an imperial residence, the earlier buildings they found on the site were generally incompatible with their needs, requiring widespread razing. Not only does Figure 29 indicate the original Neronian design, but also the Neronian parts represent the scale of the razing required to clear the site for Severus and Celer's design. The area in question is interesting in itself. Keeping in mind that Neronian phase 1 was the Domus Transitoria project, that is, before the great fire of A.D. 64, Severus and Celer did not have a completely free hand over the entire Esquiline hill, but had to make do with whatever parcels of land Nero could obtain for them. Apparently, this did not include some of the commercial properties in the Pentagonal Court area, nor whatever stood in the area of the East Block. There is no Neronian phase 1

presence in those areas at all; they only became part of the Neronian project after the fire.

Although the original relationship between Neronian phase 1 and the Type C East Suite cannot be perfectly reconstructed (the current Neronian phase 2 condition of the East Suite obscures any earlier evidence), the relationship between Neronian phase 1 and the Type X of Rooms 65–77 and Type D east of Room 43 are clear enough. These pre-Neronian rooms were left as they were, unmodified even though doing so would have been to Nero's advantage (Room 69 had passed into Nero's control in phase 1, however, and was partially razed to get it out of the way). Archaeological evidence cannot explain how Nero obtained the parts of Type D in the area of Room 43 and of Type C east of Room 56, however.

In their design of the West Block, Severus and Celer were little encumbered by the pre-Neronian remains standing to the east. The broad, oblique angle between Type D (the east side of Room 43) and Type X (at least in the northwest end of Room 66), was close enough to symmetrical that a reasonably orderly villalike design could be inserted next to the pre-Neronian remains. On the other hand, the areas where Severus and Celer were constrained by standing remains are also the areas where their design deviates most obviously from canonical villa motifs. In short, the design decisions Severus and Celer made in Neronian phase 1 were as sensible as they could be, within existing limitations. The pre-Neronian remains that Severus and Celer allowed to constrain their designs were exclusively peripheral, along the west and north sides of the West Block and at its southeast corner, whereas the Neronian palace that forms the great majority of the West Block was built entirely from scratch, on a terrace where all previous architecture was razed below Neronian floor level.

The Type A West End Group already stood (Fig. 6). Severus and Celer never had particularly grand intentions for it, but they had utilitarian requirements that the Type A rooms could fulfill, so the West End Group was retained more or less as it stood. Similarly, the north side of Corridor 19 and whatever structure had been in the area made into Staircase 38 provided a fine terrace retaining wall, which Severus and Celer wisely kept. The Type C East Suite (Rooms 56–64) apparently was still in private hands,¹¹⁰ but this did not get in the way too badly, although it did create a problematic space on the north side of the South Party Wall (Fig. 29, Rooms 50, 51A, 52, 54 and 55), an area that was bound to be of awkward and enclosed design no matter what else Severus and Celer built in the area. Accordingly, this is a relatively unpleasant part of the Neronian design, but it is also inconsequential, clearly intended as a subordinate part of the building where Nero or his entourage would never go.



29. The West Block as originally completed in Neronian phase 1. The Type E walls are solid black.

A key factor easy to overlook for Neronian phase 1, however, is the fact that the whole Domus Aurea (phase 2) park complex did not yet exist. Neronian phase 1 had to be more self-contained, including features like the great West Court (Figs. 29 and 30), with the key architectural sections facing inwards onto it. Whether there was another such court to the south of the West Block is a good question, because the Neronian phase 1 design was clearly intended to have the south rooms facing through a colonnade into an open area. The Domus Aurea parklands would eventually become the vista they surveyed, but even during the Domus Transitoria phase this was probably the outermost edge of the available terrace. The ground sloped sharply down to the valley below. Type C, too, seems to have been designed with that topography in mind.¹¹¹ In any case, except for the south facing rooms in the West Suite (even numbers from 24–36), all of the main design features of the phase 1 West Block were focused inward toward the West Court (20), a situation that was retained, perforce, in Neronian phase 2 as well. In contrast, the East Block, which is of Neronian phase 2 origin (see Chapter 5), faced primarily to

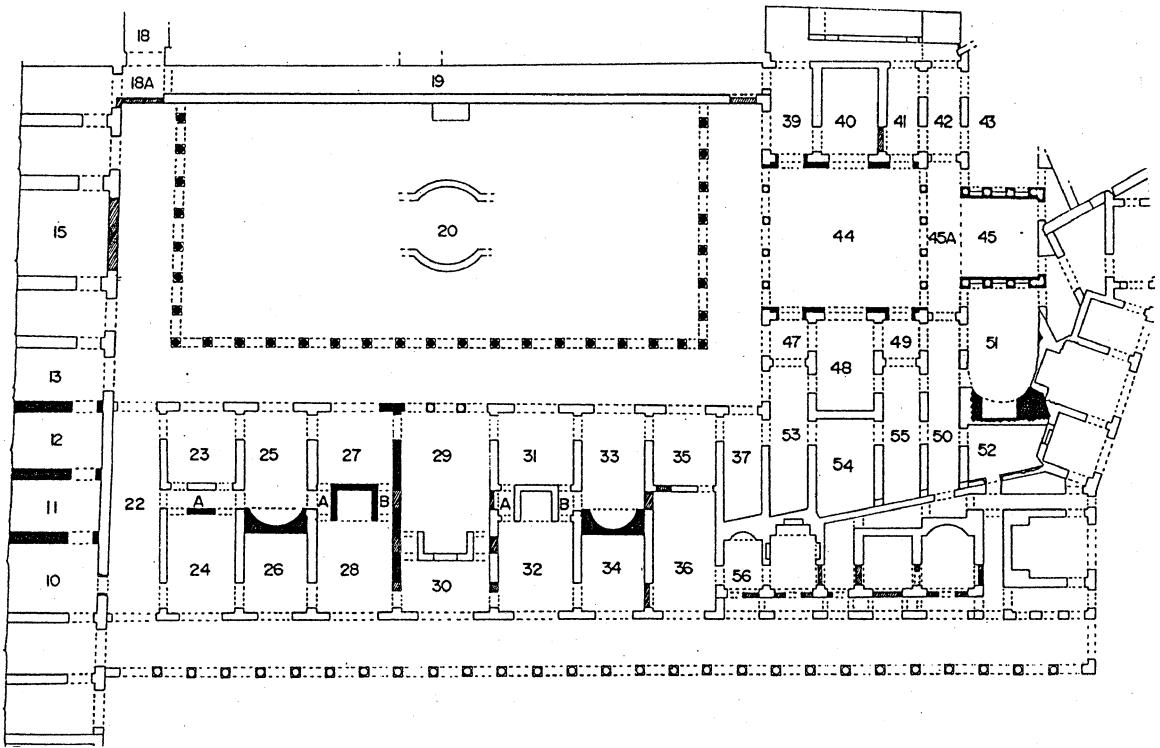
the south, taking advantage of the vista that was by then provided by the Domus Aurea parklands.

The West Court in Neronian Phase 1

At least some of the West Court area was open space in pre-Neronian times, demonstrated by the fact that there was nothing built adjacent to or bonding with the terrace retaining wall on the north side of Corridor 19 and, more important, by the fact that the Type A West End Group was designed to open onto an open space in this area. The evidence from Types B, Y and C suggests that the space was of irregular shape and therefore did not become a rectangle until Severus and Celer added the West Suite and Nymphaeum Suite to define the south and east sides (and ignoring the slightly oblique orientation of the West End Group). The north side of Corridor 19 had a slight kink in it because the west half was part of the slightly oblique Type A project (Chapter 2.1). In the Neronian phase 1 West Court this kink was banished from view by adding the south side of Corridor 19, in typical Neronian phase 1 Type E masonry. This bonds integrally with the Neronian Nymphaeum Suite in Room 39. The resulting *cryptoporticus* (Corridor 19 itself) was intended for service access between the West End Group and the important Nymphaeum Suite, suggesting that from the start Severus and Celer intended the West End Group for servants' quarters. The design of Corridor 19 matches the Neronian standards in every way, except for the low east end lintel retained from the pre-Neronian doorway. The familiar features include typical skylights and the Neronian service corridor type of frescoes. The fact that Severus and Celer also filled in the great doorway of Room 15 with Type E confirms their lowly intentions for the West End Group.¹¹² The pre-Neronian doorway in the north side of Corridor 19 was squelched at this point, filled in with Type E too (Fig. 29), but the fate of whatever Room 18 gave access to remains mysterious (this would be a good place for a staircase for service access, for instance, which may explain why Room 18 was apparently not sealed off throughout antiquity). The original design of the West Court had few other notable features, as Figure 29 indicates. The south side of Corridor 19 ended shy of Room 18, leaving that access route open into the West Court, although the utility of this configuration was quickly questioned and the opening was filled in before the completion of Neronian phase 2.

The West Court Colonnade and the Transition to Neronian Phase 2

Most important, however, as originally designed the West Court had no colonnade at all (cf. Figs. 29 and 30). The colonnade has extremely informative chronological



30. The West Block as finished in Neronian phase 2, after all Neronian modifications and decoration had been completed. Solid walls are Type F (Type G in Room 51). Hatched walls are minor masonry types from Neronian phase 2: Type H in the West Block, Type I in Room 40 and Type K in Room 18A. The masonry filling the doorways of the East Suite (Room 56–64) and in the windows flanking Room 45 cannot be described in detail.

implications, requiring detailed assessment. Luckily, the evidence is explicit. In the original West Court design, not only was there no colonnade, it is certain that a colonnade was not intended. This is not a question of the colonnade being a second construction step within one project, but rather the north side of the West Suite was built – I emphasize, *completed*, including the vaults – in a configuration in which a West Court colonnade was not possible. Then, after the original design had been completed, it had to be changed to make a colonnade possible at all. The colonnade cannot have been part of the original intention.

The masonry evidence appears in two places: the north façade of the West Suite and the west façade of the Nymphaeum Suite, which I describe in that order. The original north façade fenestration of the West Suite is consistent from end to end, illustrated here by the north end of Room 23 (Figs. 31 and 32 show this as viewed from the West Court). The *sellarium* door lintel appears at the bottom of the photo,



31. Room 23: The small phase 2 skylight at the north end and the doorway lintel below it (viewed from the north, from Court 20). The seams from the sides of the larger phase 1 window appear on either side of the phase 2 window, nearly as far apart as the door jambs below them.

with the rafter sockets above it. Above the sockets is a small skylight that opened just above the colonnade's shed roof (the top of the window is the intrados of Room 23's barrel vault).

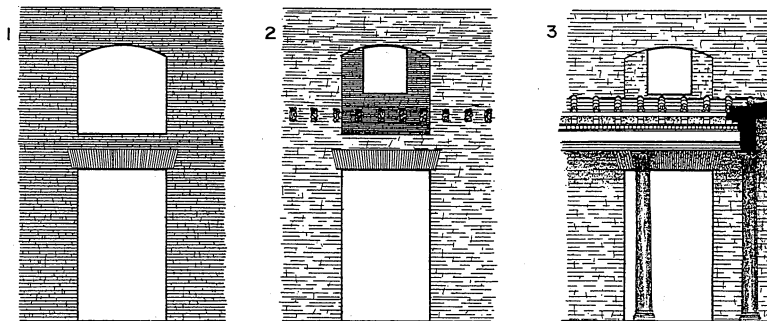
The rafter sockets and skylight are not the original design, however, but are the second phase after a series of modifications (corresponding to Fig. 32.2 and 32.3). Flanking the skylight are vertical seams that indicate the sides of a much larger original window. The seams run down from the intrados of the vault to a level well below the rafter sockets, just a few courses above the door lintel. The original window, therefore, was not only much wider than the small existing skylight, but also its sill was much lower in the wall (Fig. 32.1). The window is the same width as the door, filling the wall above the doorway, a configuration similar, but not identical, to the Type X windows in the Pentagonal Court (Rooms 65–68, e.g., Fig. 13).¹¹³ The obvious design priority in Neronian phase 1 was to make the windows as big as possible to collect as much of the weak light to the north as possible. In the context of north-facing rooms, this is a perfectly reasonable design decision, *a priori*.

As Figures 31 and 32.1 demonstrate, however, the original West Suite façade was incapable of supporting a colonnade because there were open windows where

the rafter sockets would have to be. Therefore, and inescapably, the West Court colonnade was definitely not a component of the original Neronian design; indeed it was impossible. Equally important, as the seams in Figure 31 indicate, the West Suite was completed all the way up to the vaults in this configuration. This fact is crucial; it indicates that the West Court colonnade was not a *pentimento* during the original construction of the West Block, but was a change of the design made after the original design was completed.

I emphasize this point for several reasons. One is the fact that the Neronian design and construction of the West Suite and Nymphaeum Suite were flawlessly organized and executed. The design was worked out in advance; the site was cleared; the design was laid out; and, most important, the building was *completed* as originally designed, including the vaults. The seams surrounding the north skylights of the West Suite are crucial not only because they demonstrate the multiple phases, but also because their location at the very top of the wall proves that the original design was completed all the way up. Only then were the colonnade's modifications inserted, providing the masonry needed to support the rafters.

This is the first example of a consistent Neronian masonry chronology that recurs throughout the West Suite and Nymphaeum Suite. In each instance, the masonry evidence proves that the Neronian phase 1 design was completed before any modifications were added. That needs to be emphasized in another way: there are no *pentimenti* executed during the construction of Neronian phase 1. All changes were made after Neronian phase 1 was completed up to and including the vaults.¹¹⁴ Several scholars have suggested that the masonry complexities in the West Suite and Nymphaeum Suite represent *pentimenti* precipitated during construction



32. Room 23: The north end of the room, in elevation, viewed from Court 20 (from the north), showing the three phases. 1) As originally built in Neronian phase 1 (Type E), with a large window above the flat arch lintel of the door: 2) The window is partially filled in to provide masonry for the beam sockets for the colonnade rafters. 3) The Colonnade is installed, either immediately before Neronian phase 2 or as part it.

by the capricious emperor.¹¹⁵ If one accepted the ancient literary record concerning Nero at face value, it would not be surprising to find evidence for such irregular procedure, but no such thing occurs in Neronian phase 1 of the Esquiline Wing (nor in Neronian phase 2, as we shall see).

Similarly, Morford has demonstrated that Nero's appalling persona in the literary tradition is at least somewhat excessive, so basing our expectations on the literary portrait painted by Nero's detractors is not a sound basis for formulating our architectural expectations in the first place. The masonry evidence must therefore speak for itself, and throughout the Esquiline Wing it is eloquent, demonstrating exactly the opposite of capricious interference. A perfect example of this phenomenon is under discussion here. Throughout the entire Neronian phase 1 Type E project, in both the West Suite and the Nymphaeum Suite, the earliest we can detect a change of design is the addition of the West Court colonnade. As just noted, that is unambiguously after phase 1 was completed. Evidently, Nero or his architects evaluated the West Block after its completion and only then decided that some of the light from the large north *sellarium* windows could be sacrificed for the sake of adding the colonnade to the West Court. This is thoughtful, not capricious.

I discuss Rooms 27–29 in Section 2 of this chapter, but for now it should be noted that they have significant Neronian phase 2 modifications, as indicated in Figure 30. These, too, were made after Neronian phase 1 was completed, but they also relate to the West Court colonnade. Built in phase 1, the north end of Room 27 (Fig. 33) was damaged and had to be replaced in phase 2. The phase 2 design of this wall is crucial. It has only the small skylight high in the lunette; there are no seams from a larger phase 1 window in this phase 2 wall. This means that the West Court colonnade already existed before phase 2 – or at least the architects knew it would be built in phase 2. Thus the two Neronian phases are the chronological *termini* for the colonnade. Phase 1 is definitely before the colonnade (and they cannot be two parts of just one design), and the colonnade either predates phase 2 or is part of it. The chronology of the West Court colonnade therefore unambiguously separates the two Neronian phases. In turn, this means that phase 2 cannot have been a *pentimento* within a single Neronian project; phase 2 is both later than phase 1 and different from it. Section 2 describes numerous other masonry passages confirming this distinction.

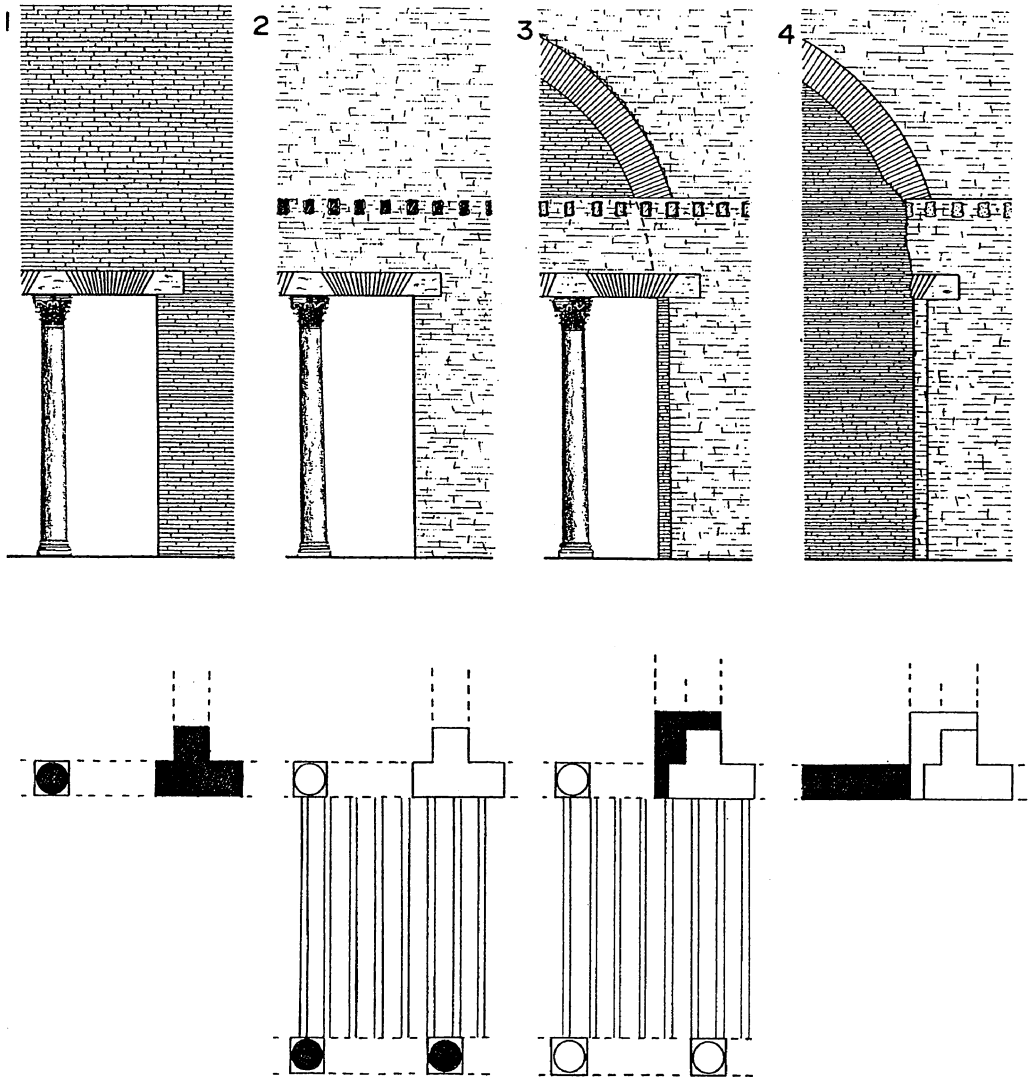
The same chronology is confirmed by the west façade of the Nymphaeum Suite, specifically the west end of Room 44 (illustrated primarily by Fig. 34, but see also Figs. 29, 30 and 42).¹¹⁶ The masonry complexities are described in Section 3, but the sequential relationship of the West Court colonnade and the two Neronian phases can be seen here too. In the first Neronian phase the west end of Room 44



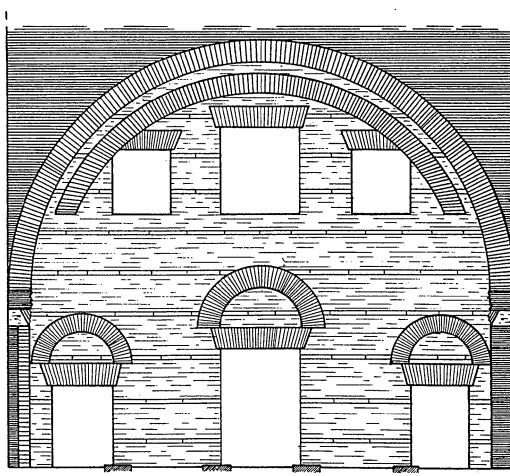
33. Room 27: The north end skylight window, viewed from the interior of the room (from the south). This is entirely of Neronian phase 2 masonry, lacking the seams around the small skylight that the original larger windows of Neronian phase 1 left around the rest of the north skylights in the West Suite.

was a colonnade with flat arch lintels (Figs. 29 and 34.1). There were no windows above Room 44's colonnade, so the West Court colonnade could be added in front of it simply by cutting rafter sockets in the existing masonry. Figure 34.2 illustrates this step. Room 44 had no vault when the West Court colonnade was added.

In Neronian phase 2 Room 44 was vaulted, with the side walls thickened to support it. The thickened side walls appear in Figure 34.3 (cf. Figs. 29, 30 and 42) as the layer of masonry added under the outer (right) edge of the outer colonnade lintel. In addition, the ends of the vault were fortified with arches of *bipedales*. It is not clear why this was done, but the phase 1 walls above the colonnades had to be removed for the arches of *bipedales* to be built. Logically, one would assume that the arches of *bipedales* would span the entire semicircular profile of the phase 2 vault, unless there were some extant feature that precluded that. At the east end of Room 44 (the party wall with Room 45), the situation was identical except for the fact that there was no West Court colonnade. There, not surprisingly, the arch of *bipedales* does span the entire profile of Room 44's vault (Fig. 35). The fact that the phase 1 material above the colonnade was removed to make way for the



34. Room 44: Elevations of the west end, viewed from the West Court (Court 20), showing the four masonry phases of Room 44. 1) The original design in Neronian phase 1 Type E (flat arch lintels springing from travertine impostes and no half-round arches above). 2) Beam sockets are cut for the West Court colonnade inserted later than Neronian phase 1 (either a revision to phase 1 or a part of Neronian phase 2). 3) Neronian phase 2 Type F masonry, including thickening of the side walls of Room 44 and the tile arch at the end of the great vault, above the level of the extant colonnade sockets. 4) Trajanic Type M. The colonnade is removed, along with the phase 1 flat arches and wall masonry above. The entire west end of Room 44 is filled with Type M masonry.



35. Room 45A: Schematic elevation drawing of the Type L wall added between Rooms 44 and 45A. The leveling courses indicate Type L fabric, but are only schematic, not counted or measured.

complete arch of *bipediales* not only makes the most practical sense as far as easy construction was concerned, but also it proves that this is what the Neronian phase 2 masons chose to do when it was possible. In contrast, at the west end of Room 44, the arch of *bipediales* was only added above the West Court colonnade rafter sockets. That is, it was not possible to remove the phase 1 wall below that level (Fig. 34.3). Because it is the colonnade that made a complete arch of *bipediales* impossible, the colonnade must have already been built before the phase 2 vault. Furthermore, the West Court colonnade cannot have been just an idea – merely a plan that would be executed along with the phase 2 vault – because that would not have prevented the phase 2 masons from completing an arch of *bipediales*. The prior physical presence of the colonnade was necessary. Accordingly, the phase 2 arch of *bipediales* could not interfere with the colonnade, but could only be built above it. The arch is therefore segmental and ends right atop the line of the rafter sockets, as shown in Figure 34.3. The drawing has a dashed line below the level of the rafter sockets indicating the vault profile where the arch of *bipediales* does not define it. The lunette in this phase cannot be reconstructed. Large windows are an appealing concept, but because neither lunette in Room 44 remains in its Neronian configuration, the design is moot.¹¹⁷

So here again the colonnade proves that the two Neronian phases are separate from each other and that phase 2 is not a *pentimento* within the phase 1 project.

The evidence from the Nymphaeum Suite and the evidence from the West Suite are slightly different from each other, however, in an informative way. In both places there are three steps in the sequence: Neronian phase 1, the colonnade, and Neronian phase 2, always in that order. The evidence in the West Suite only separates phase 1 from the colonnade, that is the colonnade must be later than phase 1, while the colonnade and phase 2 could be either identical or sequential. In the Nymphaeum Suite, in contrast, the evidence cannot separate phase 1 from the colonnade, that is they could be either identical or sequential, but the Nymphaeum Suite *does* separate the colonnade from phase 2. The colonnade must have been constructed before phase 2 and was not part of it. So, in isolation, neither the West Suite evidence nor the Nymphaeum Suite evidence would fully elucidate the three steps in the West Court. The steps would definitely be sequential, but whether they were separate would depend on which body of evidence was being considered. By considering the evidence from both the Nymphaeum Suite and the West Suite, however, it is clear that there were indeed three separate construction phases in the West Court and that no two of them were built simultaneously. Although the colonnade could still be a first construction step in Neronian phase 2, the evidence from the colonnade definitively proves that Neronian phase 1 and Neronian phase 2 are completely separate projects, not steps within a single project.

In sum, the West Court masonry chronology is crucial for understanding the Neronian phases. They are: 1) The West Block was built in phase 1. The north façade of the West Suite proves that a colonnade was not possible in this design and that the noncolonnaded design was completed up to the vaults. 2) After the phase 1 design was completed, the West Court colonnade was added, requiring that the West Suite *sellarium* windows be modified to accommodate the rafter sockets. The colonnade definitely predated Room 44's phase 2 vault, albeit not necessarily by much. 3) All of the Neronian phase 2 masonry modifications were added, throughout the West Block. Both the repaired north end wall of Room 27 and the vault of Room 44 respected the colonnade; Room 44 proves that the masons would have executed the vault arches differently if the colonnade had not already been there to constrain them, so the colonnade must have been there already.

Finally, the design of the West Court colonnade can be reconstructed reasonably well even though it was removed during the Flavian spoliation. The Flavians did not bother to heave up the large foundation blocks under the colonnade, so the spacing of the columns can be reconstructed. The interaxial was ten Roman feet, indicated by the colonnade foundations north of Room 29. This matches the

interaxial of the colonnades forming the north end of Room 29 and both ends of Room 44. The colonnade was set twenty Roman feet out from the sides of the West Court (Fig. 30).

Because the West Court was not originally designed with this colonnade in mind, it is not surprising that the colonnade does not fit into it perfectly. The south and east colonnades had to register on the phase 1 columns forming the north end of Room 29 and the east and west ends of Room 44. These rooms were designed to emphasize their perfect axial views into the West Court, and the added colonnade could not interfere with that. That fact therefore established a ten-foot interaxial for the colonnade, but colonnades with ten-foot interaxials registering on Rooms 29 and 44 cannot fit harmoniously into the West Court, especially not in the southeast corner. Neither the south nor the east wing of the colonnade would have ended with a column in the corner itself. The actual solution to this problem is not known. One possibility is reduced interaxials leading into the corner. The amount of reduction would have been different for the east and south wings of the colonnade, but at least there would be a column in the corner. It is not an entirely elegant solution, but it works reasonably well, as my conjectural reconstruction in Figure 30 illustrates. The other possibility is that the corner could have been formed by an irregular pier, with a ca. 8-foot anta to the north and a ca. 5-foot anta to the west, and with regular ten-foot interaxials from there. The southwest corner of the colonnade fit together more harmoniously, probably fortuitously. Oddly, this would not have made the designers' job any easier, because the contrast between this and the southeast corner would have been difficult to reconcile – the two south corners of the colonnade could not possibly match.¹¹⁸

In addition to the colonnade, the West Court was decorated by a large fountain centered where the axes of Rooms 29 and 44 cross (Figs 2, 29 and 30). Only the center section of the court has been freed of its Trajanic backfill, with the east and west extensions of the fountain still buried (Fig. 2). There is also a base for some sort of large decorative object behind the fountain as viewed from Room 29, built against the south side of Corridor 19. Part of the wall surrounding this base had revetment as a background, but the rest of West Court was decorated with an elaborate fourth style fresco scheme of the standard Neronian type described in Chapter 1.4, now poorly preserved. The panels of the fresco scheme registered on the colonnade (a common practice in Pompeii), and because the colonnade does not register on the doorways, neither does the decoration. The doorways simply cut the decoration scheme wherever they clash.

2. THE WEST SUITE (ROOMS 22–36)

The West Suite is of deceptively simple design and structure, at odds both with the cleverness of its conception and with the significance of its masonry chronology. Figure 29 shows the original design, executed entirely in Neronian phase 1 Type E masonry. The whole West Suite is a large east–west rectangle, divided into its primary spatial units by parallel north–south walls supporting longitudinal barrel vaults. Corridor 22 is one such unit; Rooms 23–24 are the next, and so forth. All of the Type E walls bond, including the long non-load-bearing north and south façade walls. Corridor 22 is the only unit with just one room, whereas the rest are divided into groups of rooms by small internal cross walls. The groups are numbered from west to east, with Rooms 23, 23A and 24 being Group 1, Rooms 25 and 26 being Group 2, with Group 7, consisting of Rooms 35 and 36, being the easternmost. Group 7 is also the spandrel between the Neronian Type E masonry of the West Suite and the pre-Neronian Type C of the East Suite (Fig. 29). The barrel vault over each group is contiguous from end to end, obviously built before the transverse walls were added to divide the groups into separate rooms. In many cases the cross walls have fallen away from the vault, exposing formwork imprints that run right across the tops of the cross walls. As originally constructed in Neronian phase 1, all of the cross walls had door jambs at the ends that bonded integrally with the side walls, but some were later replaced with different designs in Neronian phase 2. Predictably, the phase 2 replacements abut the earlier Type E walls.

Group 4 (Rooms 29–30) is the central axis of symmetry for the entire West Suite,¹¹⁹ but the symmetry is not detectable in situ because no two symmetrically balanced groups can be seen at the same time. For example, Group 3 (Rooms 27–28) and Group 5 (Rooms 31–32) mirror each other in plan, but the design of one cannot be seen from the other.

Even though the overall symmetry of the West Suite cannot be readily sensed, some of the other important design features are more obvious. The most important of these is the alternation between motif and countermotif, a concept that informs much of the West Suite design. One example is the way the groups differ from each other in the orientation of their principal rooms. Each group consists primarily of a two large addorsed *sellaria*, one facing north onto the West Court and the other facing south through the south façade colonnade.¹²⁰ The addorsed *sellaria* are never the same size. As a viewer moves from group to group they alternate, with the larger *sellarium* facing north in one group, then the larger one facing south in the next group. Groups 3–5 each have one *sellarium* with a rectangular alcove; these,

too, alternate, facing south, then north, then south, as one passes through these groups. As Figure 29 shows, the alternation of design motifs was stated clearly and simply in Neronian phase 1. This was especially obvious in the outer four groups, 1–2 and 6–7, which consisted exclusively of the two addorsed *sellaria*, separated by a single straight wall. The alternation motif survived the revisions in Neronian phase 2 as well, but the phase 2 changes also elaborated the design, reducing the clarity of the alternation motif.

The West Suite is tied together from east to west by three transverse files of doorways. The north and south transverse files are just inside the north and south façades, serving as normal side doors linking the lines of north-facing and south-facing *sellaria*. The third file runs through the center of the West Suite, slightly north of the exact center line, so the south-facing *sellaria* tend to be marginally larger than their north-facing counterparts. One of the key features of the West Suite was the fact that the north-facing *sellaria* formed one natural grouping while the south-facing *sellaria* formed another (see Fig. 4). The difference between the two was environmental. That is, the north facing *sellaria* were cool rooms, facing north and never receiving direct sunlight, and the south-facing *sellaria* were the warm rooms, receiving direct sunlight through their large south doorways all day long. These groupings were further distinguished from each other by the vistas they were designed to enjoy, the north group facing into the enclosed West Court and the south group facing a vista over the roofs in the valley below (replaced in the Domus Aurea phase by the parklands). The northern and southern transverse files of doors emphasized this environmental distinction by bonding the groups together. For instance, on a hot summer day one would prefer to stay in the much cooler north-facing *sellaria*; the north file of doors gave access through all of them without having to enter the hotter south *sellaria*.

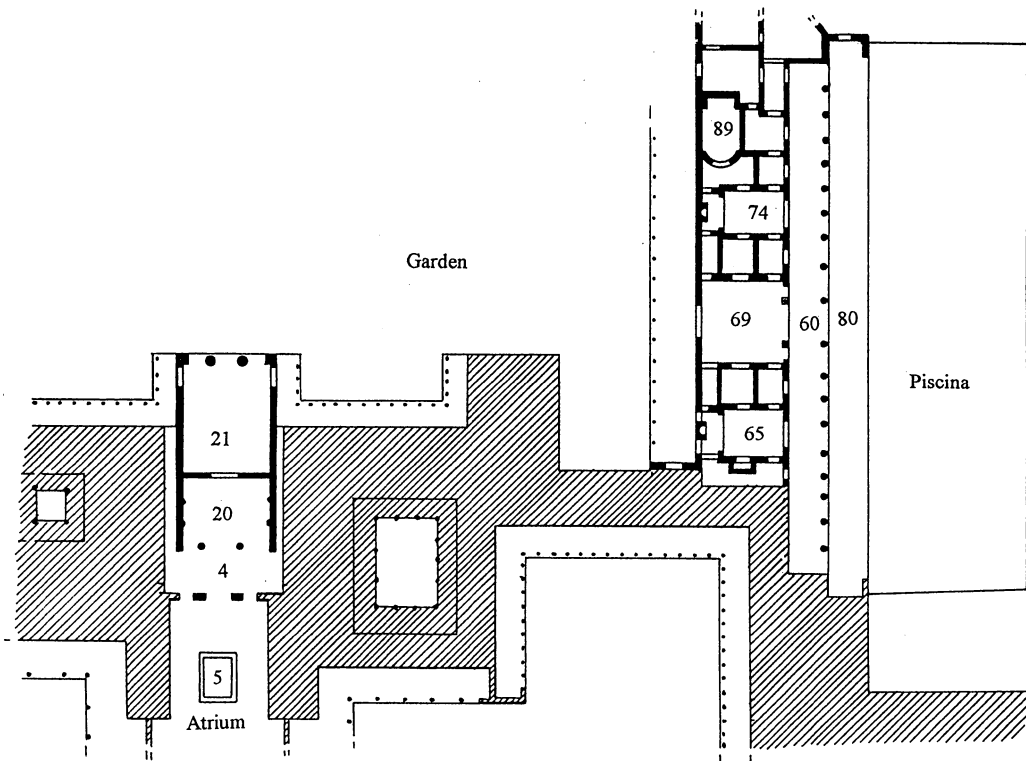
The third, central transverse file of doors is the one that most clearly expressed the alternation motif throughout the West Suite, although much of this was lost in Neronian phase 2, when several of the central file doors were blocked. Figure 29 gives a clearer sense of the original aesthetics. As one passed along the central file from one group to the next, one alternated between walking across the back of a north-facing *sellarium* in one group and a south-facing *sellarium* in the next. In Groups 1, 2, 6 and 7 the dividing element was simply a straight wall, so, for example, the alternation would be between “wall on my right; bright sun on my left” and “wall on my left; shaded courtyard on my right”, an emphatic change. Groups 3–5 were complicated by the rectangular alcoves; as one passes from group to group one must also decide whether to walk around the north or south side of each alcove. The alternation of the directions in which the alcoves faced is

obvious, however, as is the fact that they continue the same pattern of alternation as the south and north facing *sellaria* of the rest of the groups.

There is an irony here. Walking along the central file was certainly the most dramatic way to experience the alternations motif in the West Suite, but one would also be forced alternately into the less pleasant *sellaria* for a given season. Year-around the experience was probably hard on the eyes. In short, walking along the central file was interesting but unpleasant. It is therefore not surprising that much of the center file was suppressed in Neronian phase 2, with many of the doors filled and an extra wall added to create Corridor 23A, maintaining similar dim lighting from Corridor 22 to Room 27. East of that, all the rest of the central file doorways were sealed.

The overall design of the West Suite, especially in Neronian phase 1 but also in Neronian phase 2, is a familiar motif from Roman villa design. I argue later that the Nymphaeum Suite is also based on existing Roman villa design motifs, so it is worth noting that the villa is the most important inspiration for the whole West Block. The villa motif for the West Suite is best exemplified in the grand villa at Oplontis (the so-called Villa of Poppaea) in the line of rooms between the north garden and the large *piscina* (Fig. 36).¹²¹ The West Block is more complex, as Nero would undoubtedly have demanded, but most of the key features are consistent, including the fact that the line of rooms separates two important open areas, with doors and windows at the ends of the rooms facing outwards. The rooms alternate in how they emphasize which direction each room faces, albeit less emphatically at Oplontis because the largest rooms span the entire width of the group. The rooms are mostly barrel vaulted, longitudinally, with small side doorways from room to room. Apses and niches are common, but not ubiquitous; two of the rooms have small apsidal niches flanked by windows in an arrangement visually similar to alcoves flanked by doorways in Rooms 28 and 32 in the West Suite.

I do not mean to suggest that the Villa at Oplontis was a specific source for these motifs, but it serves as an example of what Roman villa architects and their patrons regarded as appropriate design in the late Julio–Claudian era. The fact that this villa motif appears in the West Suite, in fancier form, indicates that Nero was trying to build a fine and grand habitation using comfortably familiar motifs. An important interpretive thesis that recurs throughout this treatise is the fact that Severus and Celer commonly used familiar, existing motifs and modified them to suit their or Nero's needs. Here is a good example of that process, where the existing motif was used at first in only slightly aggrandized form and then was further aggrandized in subsequent modification, ultimately to the point where modern scholars can easily overlook the original source for the design. The same sort of evolution is even



36. The so-called Imperial Villa of Oplontis: Schematic plan showing the group of rooms next to the *piscina* analogous in position and design to the West Suite of the Esquiline Wing (after Jashemski, using her room numbers).

more emphatic, and impressive, in the Nymphaeum Suite and then, ultimately, in the Octagon Suite. Severus and Celer conducted their architectural revolution in discreet steps. So, here in the West Suite we see the first step, which was by no means revolutionary; they built a fancy but otherwise conventional luxury villa.

In Neronian phase 2, however, the intellectual and aesthetic conception of the West Suite was changed considerably.¹²² There are several components to this change, not the least of which was the fact that the south *sellaria* now faced across parklands, possibly brightening them considerably. Within the West Block the most significant change was the colonnade that was inserted into the West Court just after the completion of phase 1 (see Section 1 of this chapter), blocking some light from the West Suite's north *sellarium* doorways and reducing the skylight windows to less than half their original area. Although this would have made the north *sellaria* darker and cooler, in Rome this is by no means a bad thing for much of the year. More important, the aesthetics both of the north *sellaria* and of the West

Court were considerably improved by the colonnade, making the West Court into a fairly typical peristyle garden and separating the north *sellarium* doors from direct exposure to the weather. None of the changes discussed here directly involved the interior of the West Suite, yet they certainly resulted in a new conception of it, including the fact that the aesthetic contrast between north and south *sellaria* was heightened, perhaps considerably.

The greater contrast between south and north *sellaria* in the West Suite naturally improved their ability to accommodate the environmental needs of the inhabitants. Given Rome's climate, the ability to select either a particularly sunny room or a particularly shady one is highly desirable. Perhaps not surprisingly, therefore, Severus and Celer made other modifications in phase 2 that enhanced the comfort of the West Suite, even at the expense of the key design elements of phase 1. In particular, the original alternations motif was found to be of limited value, simply because it was either difficult to experience directly or actually unpleasant. Many of the phase 2 changes were therefore at the expense of the alternations motif, aimed instead at fancier design, greater comfort, enhanced privacy or aesthetic consistency within spatially cohesive sections of the suite. The need for fancier design was especially keen in Rooms 23–27, 30–31 and 33–36, which were all simple rectangles with no elaboration of any sort (Fig. 29); in all cases, their design interest in phase 1 had consisted exclusively of their participation in the overall design of the whole West Suite. Because the design of the West Suite was not readily detectable in any of these rooms, the cleverness of that design did them no good. The phase 1 alcoves in Rooms 28, 29 and 32 suggested one way that they could be elaborated, however, so the original thin cross walls of Groups 2 and 6 were replaced with much fatter walls, with apses facing into Rooms 25 and 33. Rooms 26 and 34 were considerably reduced in the process, but the change gave the West Suite five elaborated large *sellaria* in phase 2, instead of the original three.

In addition, the myriad phase 1 doors opening from room to room were apparently found to be a disadvantage. This may have been due to problems with privacy, security or comfort – most likely all three. The phase 1 plan is similar to a hypostyle hall, consisting mostly of short wall segments, liberally penetrated by doorways. Even with valves closing the doorways, it must have been drafty. Filling in many of the doorways had little negative effect on communication between rooms because most of the phase 1 doorways were already redundant. Filling in a number of them was a small price to pay for greater intimacy and less draftiness in several rooms. Rooms 32 and 34 are one example (Fig. 30). Room 32 was closed off from Room 29 entirely; the doorway into Room 28 was half filled; and Room 34 was sealed all around, remaining accessible only through one doorway from

Room 32. The fact that Room 34 was reduced in size by the phase 2 apse in Room 33 was probably advantageous; Room 34 is the only truly intimate space in the West Suite.

This is an important feature of the design procedures of Severus and Celer. From an intellectual point of view, they were as thoughtful and clever as any ancient architect, but Nero could not live in a drawing – he could not evaluate the experience of the building before it was actually constructed. Nero's original approval of the phase 1 design had been based on drawings, on purely abstract ideas. In contrast, his evaluation of the phase 2 design included his physical experience of the already completed phase 1. Many of the aesthetic and practical weaknesses of phase 1 would be difficult to imagine without an opportunity to squint at too-bright light, feel a draft, converse in a space that echoed or be visually bored by one relentlessly rectangular room after another. Having experienced the phase 1 design, however, Nero would have had no trouble specifying what changes were needed. Correspondingly, the phase 2 design changes in the West Suite are all minor, all fitting under this rubric.

There is one crucial exception, which is also perhaps the most informative masonry evidence in the West Suite. This is the phase 2 masonry in Groups 3 and 4, Rooms 27–30. As Figures 29 and 30 indicate, the cross walls between Rooms 27 and 28 and the long side wall between Groups 3 and 4 were replaced in phase 2 masonry exactly reproducing the original phase 1 design. This is an extremely informative configuration, ironically, precisely because no design change occurred. That is, these are repairs to phase 1 – not a redesign at all – indicating that the phase 1 design was damaged against the architects' and Nero's will. Design changes were neither wanted nor executed in this area.

The Masonry Evidence

The entire phase 1 Type E project was flawlessly organized, and it was executed with scrupulous on-site supervision. The masonry is consistent throughout, with no distinctions between individual masons or teams of masons. All Neronian phase 1 corners bond obviously. The latter is important because it indicates not only that there was just one phase 1 project, but also confirms the fact that the architects' plans were well understood and carefully laid out before construction began. This primordial design, then, was completed in every detail.¹²³

One of the most important techniques used is what I call a “semibond”. There are two types, rough semibonds and prepared semibonds. In both cases, they consist of concrete walls with cores that do not bond, but with facing bricks made

to interleave as well as they can, creating the appearance of a true bond. A rough semibond occurs where an existing wall has been broken off, leaving an irregular scar. Then a second wall is laid up to the scar, with its facing bricks made to key into the rough surface of the scar as well as possible. This is a crude technique – slow, inefficient and laborious – requiring that the original design be completed and then partially razed before the second phase can continue. Not surprisingly, rough semibonds almost invariably result when there is a change in design, that is, it is not a conventional building technique within a given project.

Rough semibonds are useful in the West Suite, however, because they are invariably detectable and informative, confirming the previous description. Rough semibonds were never used in Neronian phase 1, but invariably they distinguish between the two Neronian phases. This includes changes both in design and in masonry type, the Type E design razed and replaced by a different design in Type F.

The prepared semibond is an entirely different matter. This is a conventional building device, used within a given project to divide the work into discrete units. Prepared semibonds therefore do not represent separate phases, but separate steps within one phase. More important, a prepared semibond indicates careful planning, each wall being built with the clear knowledge of where all other walls in that design will intersect it. The best example in the West Suite is high in the southeast corner of Room 27 where the transverse wall has fallen away from the prepared semibond patch, but a more accessible example is in the west side of Room 51 (Figs. 62 and 64). The prepared semibond is the vertical scar in the masonry used to fill the doorway in the center of both images. It consists of the usual two walls whose core concrete does not bond, but their facing bricks are made to interleave. The first wall is built knowing that a second wall in the same project will ultimately abut it in a specific location. The surface of the first wall is therefore given a specially roughened surface in that location so that the second wall will have indentations with which its facing bricks can interleave. The roughened surface is distinctive, its indentations spaced according to the density of that particular masonry type simply by leaving out the facing bricks in every other course. The resulting surface looks rather like the black keys of a piano. When the second wall is built up to the surface the large indentations are spaced exactly according to the density of that masonry type and it is easy for the second wall's facing bricks to interleave perfectly. When well executed, an intact prepared semibond is not distinguishable from a true bond. Only when the second wall falls away, exposing the prepared surface, is the technique identifiable at all.

The primary advantage of a prepared semibond is not structural but aesthetic; it creates a perfect corner. On the other hand, semibonded walls can also come

apart rather easily, because structurally they do not bond. This weakness is well illustrated in Room 51; the second wall fell cleanly away from the first, exposing the prepared semibond, visible in the photo, but not damaging the first wall in any way.

Because an intact prepared semibond is not distinguishable from a true bond, it may appear to be a problematic technique, but the opposite is true. Prepared semibonds represent construction steps within a single project, so their chronological implications are identical to true bonds. The fact that the two cannot be distinguished therefore has no chronological significance. More important, prepared semibonds are normal in Neronian construction, used consistently throughout a given project. As a result, Neronian design projects are easy to trace, all obviously bonding or semibonding (without being able to tell which) at every corner.

In sum, the carefully laid out and flawlessly executed Neronian phase 1 project bespeaks perfect on-site organization. The site was cleared; the entire project was laid out from end to end, before any bricks were laid. All walls were then built, including prepared semibond patches wherever other walls would eventually abut them. The masonry evidence confirms Lancaster's sequence of building steps in the West Suite,¹²⁴ at least in phase 1. The load-bearing north-south side walls of the groups were built first, and the barrel vaults added atop them, before the transverse walls were inserted beneath. The side walls had the prepared semibond seatings, into which the transverse walls keyed when they were added later.¹²⁵

The wall between Rooms 35 and 36 exemplifies the simplest and most common technique in the phase 1 transverse walls. The transverse wall had a doorway at either end, separated from the side walls only by brief spur walls projecting out to form the jambs of the doorways (I call them "jamb spurs"). The jamb spurs were integral with the side walls. The chronology is the same as with prepared semibonds; the load-bearing side walls were built with the knowledge that the cross walls would meet them in those locations. Because the jamb spurs were small they could be built right along with the side walls, with little delay in construction. Prepared semibonds were not necessary, at least up to lintel level. At lintel level a hole was left in the side wall as a socket for the cross wall's flat arch lintel. Only above the lintels did cross wall fabric abut the side walls, and prepared semibond seatings were used accordingly. In all cases, the way was prepared for the cross wall to be inserted later in whatever way was appropriate for a given level. The cross wall could then be added whenever it suited the masons, and it would appear to bond from top to bottom. I will have more to say about these issues when discussing specific evidence below, but for now the point is that we *do know* how the Neronian phase 1 architects and masons assembled the West Suite. The cross



37. The Neronian phase 2 window between Room 12 and Corridor 22, viewed from below in Corridor 22. West is to the bottom.

walls either interleaved via prepared semibonds or they were door jamb spurs that truly bonded, but in all cases there is just one phase 1 project that was completed in its entirety. Wherever we find an instance where an earlier, bonding cross wall was broken away and replaced by a nonbonding wall it will be accompanied by clear evidence that a second, different design has been substituted after the completion of the first.

Corridor 22

Corridor 22 is a transitional space, both because it is a corridor whose only function was to connect rooms to each other and because it is the spandrel between the pre-Neronian West End Group (Chapter 2.1) and the Neronian West Suite (Fig. 29). Corridor 22 also was probably an environmental buffer between the apparent slave quarters of the West End Group and the fine *sellaria* of the West Suite.

The west side of Corridor 22 is a remnant from the Type A West End Group, built originally when the area of Rooms 10–12 was a single hypaethral space. The Neronian West Suite was then built up to this wall. The north and south ends and the east side of Corridor 22 are therefore all Type E, all bonding together. The Type E only abuts the intact Type A facing of the west side, however, with

some interesting and rare configurations resulting. For instance, in the north and south end doorways, the west jamb spurs do not bond to the west side wall, but only abut it in an extraordinarily fragile configuration. This is not a conventional Neronian technique – it appears nowhere else in the Esquiline Wing – but here only results from the fact that a Neronian design was built up to intact facing with which bonding was not possible.

Similarly, the Type A west side of Corridor 22 had intact facing to its full height, well above the springing level of Corridor 22's Neronian vault. The vault concrete was therefore laid in next to the Type A facing, not bonding with it and imbedding its bricks within the vault concrete. This configuration would be invisible were it not for the fact that Rooms 10–12 were then divided from each other and vaulted in Neronian phase 2. This previously hypaethral area suddenly needed a light source, which was not readily available because none of these rooms opens directly either to the south or to the West Court. So windows had to be cut where they could, including large ones at both ends of Corridor 22. In addition, a large window was cut through the west side of Corridor 22's vault into Room 12 (Fig. 37), obviously intended to conduct light from the new north end window in Corridor 22. This window cutting reveals the imbedded Type A facing and confirms both the relative chronology of Types A and E and the odd masonry configuration that results.



38. The south façade of the West Block in the area of Corridor 22 (L) and Room 24 (R).

The south doorway has both a flat arch lintel and a squat three-centered relieving arch above it, a motif typical of the original Type E design of the south façade (Fig. 38). The south façade was designed to have a colonnade, so the flat and three-centered arches filled the wall space above the lintel needed to incorporate the rafter sockets. Several south *sellaria* have small windows above the colonnade, but Corridor 22 originally did not. The window that appears in Figure 38 was cut in Neronian phase 2 or later to light Room 11. Room 11, in turn, has a window cut angling toward it. A window opens the entire north lunette of Corridor 22, under the vault, with the sill just above the shed roof for the West Court colonnade. It is not clear what phase this window belongs to, but it is probably not Neronian phase 1 because it is not a typical Neronian design, and its sill is set just above the rafter sockets of the West Court colonnade. Most likely it is therefore from Neronian phase 2, intended as a light source for Room 12.

Group 1 (Rooms 23, 23A and 24) and Group 7 (Rooms 35 and 36)

I describe the addorsed *sellarium* groups in the West Suite in pendant pairs. This is both efficient and informative because commonly the Neronian phase 2 changes create informative differences between the formerly matching pair. We start with the outermost pair of groups, which are also the simplest. Throughout this section comparison of Figures 29 and 30 will be informative.

Group 7 (Rooms 35 and 36) is nearly intact in its Neronian phase 1 design. It consisted of the typical addorsed *sellaria*, separated by a simple cross wall with two doorways in it. The doorways were set out from the side walls by small, integral jamb spurs, as already described. This design scheme was repeated precisely in Group 1 in its original form, so the two groups were nearly perfect mirror images of each other.

Comparison between Figures 29 and 30 illustrates the changes that took place from Neronian phase 1 to Neronian phase 2. In Group 7 this consisted of filling the doorways on the west side of Room 36. The doorways were filled with a variety of masonry types, but they all belong to Neronian phase 2, covered with the phase 2 decoration scheme for the whole West Suite. The most likely purpose for these modifications was to separate several small groups of rooms into more intimate suites. Rooms 33 and 34 were one such, while the closing of the doorway between Rooms 57 and 58 in the East Suite made Rooms 36, 56 and 57 into another. The doorways between Rooms 35 and 36 are more problematic, one filled with Type E masonry (probably contemporary with the fill in the large doorway of Room 15 and the West Court colonnade, but not otherwise relatable

because it is Type E fill in a Type E doorway), whereas the other has been widened in modern times, destroying its Neronian configuration.¹²⁶

The Neronian phase 2 changes in Group 1 are more complex, having to do with the phase 2 wall added in Room 24 to create Corridor 23A (Fig. 30). This wall had two doors in it facing the doors in the original phase 1 wall (the north side of 23A). The masonry chronology for this change is exactly as one would expect; Neronian phase 1 had made no provision for a wall here, so there are no integral jamb spurs for its doorways. The phase 2 doorways simply did without outer jamb spurs and are therefore wider than the phase 1 doorways to that extent. Holes were cut in the phase 1 side walls into which the flat arch lintels were set, crudely, with considerable mortar. The fact that the holes are rough-edged and unfaced confirms their date later than the original side walls. The flat arched lintels are the only part of the phase 2 wall that keys into the Type E masonry of the side walls; above lintel level the phase 2 masonry simply abuts the Type E facing.

The phase 2 masonry forming the south side of Corridor 23A is a common and distinctive type for the West Suite. It is canonical Type F in most respects, but it also has a greater proportion of the thinner bricks normal in Type E. It is still coarser than Type E, with thicker bricks, and it is also typical of Type F in being less carefully assembled than Type E. The distinction is subtle, but detectable and consistent. This gives the impressions that in the West Suite the Type F modifications were made quickly after the Type E construction, using up a substantial supply of leftover Type E bricks.¹²⁷

Room 24 itself changed in phase 2. It started as a typical, large south-facing *sellarium* with four doors in its north corners, but in phase 2 became a smaller *sellarium* with a passageway across the north end. Corridor 23A gave access between all adjacent rooms (22–25) without entering any intervening room. Probably it was a service corridor, therefore, allowing Room 24 to be used without having servants constantly walking back and forth across one end of it. Nero, too, apparently found Corridor 23A useful, as indicated by the fact that it was reveted up to lintel level, plus a suspended, frescoed ceiling of the sort commonly found in small corridors throughout the Esquiline Wing.

An even later revision, possibly of post-Neronian date, included inserted walls in Rooms 24 and 26, and possibly 28, isolating their south ends as a corridor running along the south façade of the West Block. This corridor appears to have been reasonably well decorated, although the scheme is no longer recoverable in detail. It included a suspended ceiling just above lintel level of the large *sellarium* doorways, ca. 5 m. It appears to have been a promenade along the West Block façade, apparently intended for use by a patron, either Nero or Otho. The interiors

of Rooms 24 and 26 north of this promenade were given over to lowlier functions and decorated accordingly. Room 26 also had a mezzanine inserted, analogous to the mezzanines added in the West End Group and probably related to similar use.¹²⁸

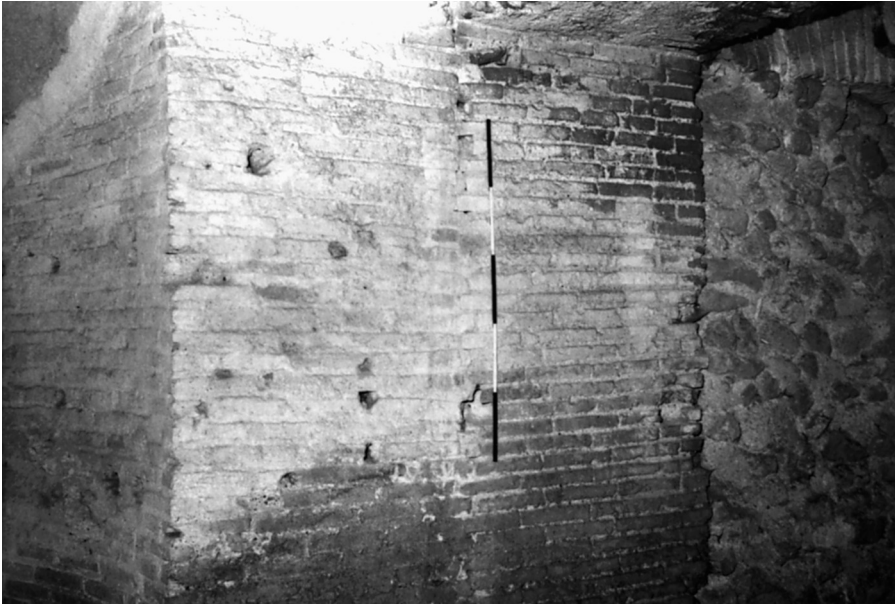
Group 2 (Rooms 25 and 26) and Group 6 (Rooms 33 and 34)

Groups 2 and 6 are easy to analyze, complicated only by the fact that Room 26 in Group 2 retains much of its wall plaster, making its important north corners illegible. Luckily, the evidence in Group 6 matches Group 2 in all ways and the analogous Room 34 is readily legible. Figures 29 and 30 serve throughout this entry.

The basic design and chronology of Groups 2 and 6 are typical for the West Suite. They were originally constructed of Neronian phase 1 Type E masonry, including the long side walls, integral north and south ends and one contiguous barrel vault covering each group. The original design included the usual north- and south-facing *sellaria*.

The cross walls that separated the *sellaria* are the only features that were changed in Neronian phase 2, as shown in the change between Figures 29 and 30. The phase 1 cross walls were located as indicated in Figure 29, just to the south of the middle transverse file of doorways. They were of conventional thickness, ca. 2 Roman feet. They bonded to the side walls, with their north sides even with the south jamb surfaces of the doors. The phase 1 corners were true bonds, including the concrete core, and not semibonds (Fig. 39). Throughout the West Suite, the only features of phase 1 cross walls that bond with the side walls are jamb spurs for two doorways in the cross wall, like Groups 1 and 7. This appears to be a standard design motif for the phase 1 West Suite, and the doorways in Groups 2 and 6 have been reconstructed accordingly in Figure 29.

In phase 2 the original thin cross walls were broken out and replaced with new cross walls in Type F masonry. These were much fatter, ca. 6 feet, because they had segmental apses on their north sides. The apses, undoubtedly, were the reason for making the change, making Rooms 25 and 33 considerably fancier, and reducing the length of Rooms 26 and 34 by about four feet. The apses had small statue bases in them, of which the one in Room 33 remains in situ. It is of *opus testaceum*, but it does not bond to the apse facing. The apse and the statue base were reveted contiguously, so the statue bases are from Neronian phase 2, before the main decoration scheme was applied. The statue base is about 2 feet square, suitable for a single standing life-size figure.



39. The southwest corner of Room 25, looking into the south jamb of the door to Room 23A (Fig. 30). L–R: Curved surface of Room 25's Neronian phase 2 apse; flat portion of the phase 2 wall west of the apse; rough semibond between the two Neronian masonry phases (just left of the meter); Neronian phase 1 south jamb of the doorway to Room 23A, with the meter on it; post-Neronian cemented rubble fill in the southeast doorway of Room 23A.

Breaking out the phase 1 cross walls left rough scars, whose irregular edges are visible in the south corners of Rooms 25 and 33 (Fig. 39). The Type F apsidal walls were then built up to these scars, with the Type F facing bricks only roughly keyed into the irregular scar surfaces, classic examples of rough semibonds.¹²⁹ On the other hand, the scar was only as wide as the phase 1 wall, ca. 2 feet. Because the phase 2 walls were some four feet thicker than that, their south sides abutted the intact phase 1 facing of the side walls well south of the scars. The north corners of Room 34 indicate this configuration clearly, with the facing bricks of the cross wall abutting the unbroken side-wall facing. Room 26 is undoubtedly similar, although preserved frescoes in its north corners obscure the evidence.¹³⁰

Although the phase 2 design of Groups 2 and 6 is undoubtedly more interesting than phase 1, it is the phase 1 design that most clearly stated the original alternation motif. In Groups 1 and 2 the transverse walls were north of the transverse file of doorways, so the north-facing *sellaria* were small and the south-facing *sellaria* large, whereas Groups 2 and 6 were of the same design, but in mirror image from south to north, with identical transverse walls moved to the south side of the transverse

file of doors (Fig. 29). The alternation motif was retained in phase 2 because the apsidal walls, too, are south of the transverse file, but in phase 1 the alternation would have been more noticeable because it would have been an identical motif that moved from one side to the other as one moved along the central file from one group to the next. Because all other features in Groups 1–2 and 6–7 were consistent, it is only the alternation of orientation that changed from group to group. In phase 2, in contrast, the new apses grab one's attention emphatically, making it obvious that Groups 2 and 6 are of different design from Groups 1 and 7, not just different orientation. Viscerally, the alternation motif is overwhelmed by the much greater design change created by the new apses.

In sum, the revisions in Groups 2 and 6 bespeak an attempt to improve on the Domus Transitoria design, resulting in a fancier and grander ambience, but apparently not involving any sort of damage repair. By the same token, the masonry evidence proves that the phase 1 design was completed as originally designed, with the phase 2 revisions built in, in place of phase 1 walls that had to be broken out to make way for them. The decoration in these groups is typical Neronian phase 2, as described in Chapter 1.4, later modified in Room 26 as described in the previous entry.

Group 3 (Rooms 27–28), Group 4 (Rooms 29–30) and Group 5 (Rooms 31–32)

Groups 3, 4 and 5 are similar in design and structure, making them a natural ensemble to treat together. Their similarities are obvious in plan, as Figures 29 and 30 show. Room 29 stands out both in plan and in situ as the central focal point of the whole West Suite, being much larger than the other rooms and distinctively finer in its design details and decoration. For instance, when one walked along the north transverse file of doorways, each *sellarium* would give a broad view into the West Court, including a view of the central fountain and whatever was on the large base on the north side of the court behind it. It would also be obvious that the fountain was not on the axis of any of the north *sellaria*, until one stepped into Room 29. At that point the central axis of the West Suite would be obvious, running from the alcove at the south end of Room 29 through the middle interaxial of the colonnade at the north end. When the West Court colonnade was added, it registered on the colonnade of Room 29, emphasizing the axis even more clearly. The north end of the axis was anchored by the West Court fountain and the decorative feature on the base behind it. Only in Room 29 were the columns centered; everywhere else in the West Court and across the south façade of the

West Suite the colonnade simply ran across the doorways, taking no account of them. We have already seen the odd effect this had on the corresponding West Court decoration. In Room 29 all of these elements came together in a uniquely orderly ensemble centered on the main north-south axis of the West Court.

The rectangular alcove at the south of Room 29 is echoed by south-facing alcoves in Rooms 28 and 32. The square alcove is one of the motifs that link Groups 3–5 aesthetically, but only Room 29's alcove would be visible as one walked along the north file of doorways. Viewed from the north, the transverse walls in Groups 3 and 5 would have given no indication that Rooms 28 and 32 had alcoves at all. The small corridors flanking the alcoves gave the south ends of Rooms 27 and 31 a pair of doorways just like the phase 1 cross walls in Groups 1–2 and 6–7. Only upon stepping into Room 29 would the alcove motif suddenly appear. Room 29's alcove is also splendid, both large and, uniquely, provided with two large windows. Unlike any other north *sellarium*, therefore, Room 29 had sunlight coming in directly from the south and a view across the Domus Aurea parklands. Room 29 was also notably more spacious than the other *sellaria*, both in plan size and, possibly, because it originally had a flat, beamed ceiling (to be discussed presently). The greater size of Room 29 was at the expense of Room 30, which was little more than a light collector for Room 29 and a passageway between all adjacent rooms.

Passage along the south transverse file of doorways would have been considerably less dramatic, with the alcove motif appearing in Rooms 28 and 32, before one got to the main axis in Room 30. Then, when one did arrive in Room 30, it was clear that Room 30 itself was essentially an afterthought, little more than a brightly lit cube, subordinate to Room 29 for which it was little more than a light source. The alcoves in Rooms 28 and 32 were of lesser grandeur than Room 29's, being much lower and set under their own barrel vaults (Fig. 40), and they lack windows. The alcove in Room 29, in contrast, reached all the way up to the vault. Rooms 28 and 32 were fine, but they were not a matter of awe. Room 29, in intentional contrast, certainly was.

From all of the foregoing, it appears that Severus and Celer regarded the West Suite as inward facing, with the north vista across the West Court more important than the south vista. Because the original design predates the Domus Aurea (i.e., predating the parklands to the south), the original view into the West Court may well have been the more pleasant one. One wonders, too, if the phase 2 design changes in Groups 2 and 6 were partly motivated by this attitude. In Neronian phase 1 Room 29 defined the northern emphasis of the West Suite, but it was the only especially grand room facing north, whereas, because of the concept of

alternating motifs, there were *two* special south facing *sellaria* with alcoves. The phase 2 apsidal walls inserted in Groups 2 and 6 may have been intended to redress this imbalance.

For the most part, the central unit's masonry chronology is also typical of the West Suite overall, including original construction in Neronian phase 1 Type E masonry, with contiguous vaults covering each group and the transverse walls added under them. The north end windows were also canonical examples of the larger size that had to be partially filled to accommodate the later West Court colonnade. All of the inserted cross walls were anticipated from the beginning of the project and provided for by Type E jamb spurs bonding integrally with the side walls. These occurred in the outer jambs of the doors at each end of Rooms 27A, 27B, 31A and 31B, but not on the inner jambs, that is, not on the jambs adjacent to the alcoves, and apparently not in Rooms 29A and 29B at all. The wide spacing of these integral jamb spurs proves that the complex transverse walls and rectangular alcoves in Rooms 28 and 32 were original to phase 1.

In Groups 3–5, however, Neronian phase 2 is of a unique and crucially informative configuration. Comparison of Figures 29 and 30 reveals that the alcove in Room 28 and the load-bearing north-south wall between Groups 3 and 4 are all of Neronian phase 2 Type F masonry, not bonding with anything around them.¹³¹ Two points need to be emphasized here: first, there are indeed two different masonry types. They clearly represent two distinctly separate projects that need to be accounted for. Second, the pattern of phase 1 walls razed to make way for phase 2 modifications occurs here just as it does in Groups 2 and 6. This sequence is readily identifiable by the pattern of bonding and nonbonding walls, described presently. The two kinds of evidence confirm each other, but either is sufficient in isolation; the evidence in these three groups is complex, but of high quality, clear, complete and consistent.

Group 5, Rooms 32–33, is nearly intact in its Neronian phase 1 Type E guise. The only phase 2 components are filled doorways (these are marked in Fig. 30; they have Neronian phase 2 decoration on the fill, but require no other description). All other masonry in Group 5 is Neronian phase 1 Type E, with all corners bonding. The north window in Room 31 has the usual two-phased chronology necessitated by the added West Court colonnade. The seams of the original large window are visible and the fill inside it has the typical small window at the top.

The masonry for the transverse wall between Rooms 31 and 32 is canonical Type E, albeit slightly denser than usual (like the south side of Corridor 19), but sadly this is the only intact phase 1 cross wall in Groups 3–5. The alcove in Room 29 does not preserve its facing (and it appears to be phase 2 in any case), and the



40. Room 32: Overview to the north.

alcove in Room 28 is definitely entirely phase 2 in date. It is noteworthy that the Room 32 alcove is linked to the Type E side walls via prepared semibonds. Because that technique required that the inserted side-wall facing bricks key into the indentations of the prepared semibond surfaces, using thinner bricks in the transverse walls may have seemed like one way to make that process easier. In contrast, inserted phase 2 Type F cross walls were notably coarser than Type E, which is true even for the slightly finer variety of Type F used in the West Suite. Because Type F bricks were laid up either to a roughly broken surface or to intact Type E facing, there was no possibility of the bricks interleaving with the Type E. The Type F masons therefore did not have to pay any attention to the Type E coursing, but could simply slap their bricks into place quickly, goaded, one

imagines, by an impatient Neronian phase 2 foreman. The Type E project clearly had greater pretensions of quality and the masons may have been glad for thinner bricks, making it easier to construct a nice, neat corner. That is probably more explanation than the evidence requires, however; the alcove fabric is only slightly denser, still canonical Type E. It makes sense as it stands.

Only the pattern of jamb spurs in the Group 5 transverse walls needs further comment. They are not remarkable at all, which is exactly the point. The jamb spurs are Type E, integral with the side walls, and located exactly where they belong, flanking the alcove of Room 32. Like all the central unit alcoves, the Room 32 alcove had a pair of tiny passageways flanking it on either side, Rooms 31A and 31B. These had doorways at both the north and south ends, framed by jamb spurs integral with the Type E side walls (but, as noted previously, not on the jambs adjacent to the alcoves). This motif of jamb spurs is not only typical of Type E practice in general, but was also definitely executed in Groups 3 and 5. I dwell on them here because there can be no doubt of their existence; they stand as originally built. That is less emphatically the case in Group 3, where there is evidence for jamb spurs in the Type E west side wall, but not in the Type F east side, so it is important to establish the primordial Type E design; it had jamb spurs.

The basic design of Group 3 (Rooms 27–28) is misleading. As Figures 29 and 30 illustrate, the design was unremarkable in both Neronian phases. It is therefore easy to overlook its crucial masonry anomalies, which are extremely informative for the whole chronology of the Esquiline Wing. The original design was executed in phase 1 Type E, exactly pendant to Group 5, but the only remnants of this are the west side wall and the south end. The north end of Room 27 and the entire set of transverse walls, including the Room 28 alcove, are from phase 2, with a pattern of scars, bondings and other features that prove that the two phases are different.

The list of anomalous features is extensive. The masonry of the northeast pier in Room 27 is unlike any other in the West Suite. The bricks are not easily described because the pier is heavily weathered and, on the south side, darkened as if burned. The brick dimensions are quite variable, with some that are fairly thick, as per Type F standards (ca. 40–41 mm), but most notably thinner, as for Type E (ca. 37–39 mm). The coursing is crude, bearing little relationship to the relatively thin bricks. The density is a mere 16+ courses per meter, which is very coarse even for Type F. It is actually closer in density to the very low quality masonry types used in door fill. The technique is certainly sloppier than Types E and F. The rest of the long east side wall of Group 3 is the denser variety of Type F, more neatly laid than the northeast pier of Room 27, but with a similar component of fatter bricks. The east side wall is also inconsistent in its brick thicknesses and densities, uniquely

so for any fabric in the West Suite. The entire east side bespeaks fast and careless rebuilding, using whatever bricks came to hand, including bricks reused from Type E, new Type F bricks and possibly bricks from entirely unrelated sources. The poor preservation of the northeast corner pier of Room 27 may be evidence of this; its materials are apparently shoddy, possibly representing an attempt to patch together a pier as quickly as possible. Whether the pier started to decay detectably right as it was rebuilt cannot be determined, but the materials for the rest of the Group 3 east side wall appear to have been selected more carefully. The bricks are still more variable than Type E or Type F, in both their quality and dimensions, but they are more consistently durable than the northeast pier. In contrast, Room 27's northwest pier and west side are of normal Type E of typical high quality and consistency.

The southeast pier of Room 28 has a cracked corner, possibly a rough semibond. If that is the case, then this is the seam where phase 1 Type E and phase 2 Type F come together, but the samples are too small to be certain on the point. There is not a corresponding crack in the southwest corner of Room 30, so this passage remains problematic.

The fact that the two long side walls of Group 3 are not contemporary with each other is demonstrated by the transverse group, Rooms 27A and 27B and the Room 28 alcove. These are made of the normal West Suite variety of Type F (phase 2) and consist primarily of two east-west cross walls, now missing most of their lunettes. The whole transverse group bonds together as one Type F unit, but it only bonds to the east side wall, not the west. The west side wall was part of the original Type E construction and had the usual integral jamb spurs for the doorways at either end of Room 27A. The Type F design was nearly identical to the Type E design, with but one minor change, the deletion of jamb spurs in Rooms 27A and 27B. In Room 27A the Type E jamb spurs still remained, so they had to be broken out, leaving rough flat scars that were ultimately covered by the main Neronian phase 2 decoration. These scars are obvious, for example, in Figure 41, right, just below the lintel. Above the lintels the Type F transverse walls simply abutted the Type E west side wall facing.

On the east side, in Room 27B, the Type F transverse group does link to the Type F side walls, above the lintels, via prepared semibond patches. The Type F side walls are most informative below the lintel level in Room 27B. The decision to delete the jamb spurs had already been made, so the Type F east side wall was simply built without them. There are therefore no scars from removed jamb spurs in Room 27B; its whole east side postdates the abandonment of the jamb spur motif. The Type F facing continues straight under Room 27B's north and south

doorway lintels, as shown in Figure 30, in contrast to the intact phase 1 jambs of Rooms 31A and 31B.

The last anomalous feature in Group 3 is the north end wall, above the *sellarium* lintel (Fig. 33). As noted previously, the northeast corner pier in Room 27 is not part of the original Type E project. If the original pier had to be replaced, then so did everything it had originally held up. The masonry of the north end of Room 27 proves that this was indeed the case; it is entirely phase 2. This is obvious even though the masonry cannot be reached for measuring and description. The window is definitive; it does not have the two-phased chronology found in all other north *sellarium* windows in the West Suite. Instead, the entire lunette is contiguous, without the seams from the original, larger window before the West Court colonnade was added. The window has only one phase. It is the high, small kind of window that accommodates the added colonnade. I have noted already that the West Suite provides the chronological *termini* for the West Court colonnade; it is the north end of Room 27 that does so. The phase 2 modifications in Room 27 took place *after* the decision had been made to add a colonnade in the West Court. Whether the colonnade predates the second phase in the West Suite or is contemporary with it cannot be determined, but the phase 2 masons who built the new north end of Room 27 obviously knew about the colonnade.

The masonry of Group 3, therefore, has a unique chronology. The difference between this chronology and the rest of the West Suite is not in the phases themselves, because throughout the West Suite the key phases are the same. Neronian phase 2 Type F revisions always supplant the original construction in Neronian phase 1 Type E. Clearly the West Suite, in toto, underwent a systematic suite of changes, all executed at once in phase 2 Type F. The whole central unit of Group 3 participated in this modification. The unique feature of Group 3 is the fact that here, and here alone, only the masonry changed, but there were *no significant design changes*. The deleted jamb spurs are the *only design change of any sort*. This is paltry, especially in comparison with the massive change in masonry in Group 3, including the entire east side and north end. This is far more masonry change than anywhere else in the West Suite, yet everywhere else the masonry changes relate to fundamental changes in design. In Group 3, in contrast, the tiny change in design cannot be the driving force for the substantial changes in masonry. Furthermore, Room 27A proves that the design changes that were made could have been affected quickly and effortlessly without any Type F masonry at all, had no other factors intervened. That is, if getting rid of Type E jamb spurs were the point, they could be chipped away in both Room 27A and in Room 27B. The fact that this was actually done in Room 27A proves the point. It is an hour's work for one laborer,



41. Room 27A: Overview to the south, with Neronian Type E facing to the west (right) and the scar below the lintel where the original jamb spur was cut away.

probably not even requiring a trained mason. Thus, had this *pentimento* been the driving force for the changes, then Room 27B would have had its jamb spurs chipped out too, and Group 3 would have no other complications in its masonry. Completely rebuilding the whole transverse group, the whole east side wall and the north end of Room 27 would be an absurd way to make that change in Room 27B. Yet, I emphasize, *no* other changes were made.

Clearly, therefore, the phase 2 masonry changes in Group 3 are not *pentimenti* at all; they are not based on a change of mind concerning design. Instead, obviously, the changes are repairs. They replace what had been there previously in Type E masonry with exactly the same design in Type F masonry. In addition, these repairs are on a large scale, representing much time and effort. This is not a project that

was undertaken lightly. The only valid explanation for the evidence in Group 3 is that the Type E walls were damaged against the architects' will. That is, the Type F interventions in Group 3 were a necessity, not a choice. This is a crucial distinction. Lancaster, for instance,¹³² contends that after the Esquiline Wing was first designed, it was then constantly revised during construction, under Nero's capricious influence. She therefore ascribes all revisions that involve changes of design to this process. A priori, Lancaster's presumption is reasonable, but its validity can also be tested by studying the masonry. The masonry does not cooperate, clearly indicating a different construction process. Instead of capricious change, in Group 3 there is no design change at all.

So, in Group 3, not only are the revisions later than the completion of the phase 1 Type E design, but also the masonry demonstrates that the change represent destruction by an external agent followed by repair, and only repair, matching the previous design perfectly.

In order for the masonry to be in this configuration, the great fire of A.D. 64 is much more obviously the culprit than Nero. The Group 3 masonry evidence follows the chronology described in the literary sources, nailing down both the nature and the chronology of the change from Type E to Type F.

The literary sources, most significantly Suetonius, also indicate that Nero took advantage of the expanded opportunities in the wake of the fire to aggrandize his palace project and this, too, is what we find in the transition for Type E to Type F, as we have seen in the apsidal walls in Groups 2 and 6. The same is true in the Nymphaeum Suite. Group 3 in the West Suite, then, serves to date the transition from Type E to Type F and, with it, all of the design changes that were executed in the new masonry type.

There is only one unanswered question concerning this chronology, which is what the nature of the damage was. The fire of A.D. 64 has already been suggested, but the masonry evidence does not actually specify it. The damage must have been substantial, however. If the party wall between Groups 3 and 4 had to be replaced completely, then the vaults or ceilings it held up had to be replaced too. This is not impossible. Indeed, one wonders why there is evidence for damage only in this location, right in the center of the West Block, and not throughout. This can only be addressed speculatively, but one possible explanation is the special status of Room 29. For instance, because it was the biggest and most special room in the West Suite, it may have been distinguished from the others aesthetically as well. One possible way to do this would have been a beamed roof and flat ceiling. This would have been loftier and more spacious in feel than the vaulted rooms around it in the rest of the West Suite, not least because vaults of the same height as a flat

ceiling have to spring from much lower in the walls. Hence, the wall decoration in a beamed room extends to height of the *crown* of a vault of the same height. A beamed ceiling in Room 29 would also have been yet another feature unique to that room. On the other hand, Room 29's putative ceiling beams would have been the West Suite's only substantial fuel source for the conflagration. It is by no means demonstrated that the blackened masonry of the north piers of Room 29 derives from fire damage, but there must be some reason the damage was concentrated only in this area.

Finally, after the Type F structural repairs, there were the usual door fillings before the final application of the Neronian phase 2 decoration throughout the West Block. These include the doorway between Room 28A and 29, which is fascinating; the Type F replacement wall slavishly copied every feature of the original Type E wall, including this doorway, and then the doorway was immediately filled in before the main decoration scheme was applied. The door fillings, of course, correspond more to the decoration project than to the structure, so finding these rather contradictory steps within Neronian phase 2 is by no means inexplicable.

By describing the masonry of Groups 3 and 5 I have also described most of the masonry of Group 4 between them, Rooms 29–30. It is lucky that Groups 3 and 5 are as informative as they are because much of the masonry in Group 4 is obscured. Decoration remnants, lime deposits from decayed plaster and missing facing all contribute to the problem. The long side walls of Group 4 are securely identified, however, as we have seen. The east side wall (the party wall with Group 5) is phase 1 Type E, whereas the west side wall (the party wall with Group 3) is phase 2 Type F. The fact that no design changes took place when the Type F west side wall replaced its Type E predecessor is obvious inside Room 29, because all doorways and other features in the Type E east side are mirrored in the Type F west. The Neronian chronology of the changes is also obvious from the fact that the door fillings are covered by the main Neronian West Block decoration.

The north end wall of Room 29 was spanned completely by the short colonnade described previously. There were short jamb spurs at either end, whose decoration cannot be reconstructed. The two column foundations remain in situ, but the columns, the entablature and the lunette above it are missing, undoubtedly all removed or destroyed during the Flavian spoliation.¹³³ Because the northeast pier of Room 29 is of Type E masonry, including one of the small jamb spurs for the colonnade, the colonnade must have been original to the phase 1 design. There may have been pilasters on the ends of the spur walls similar to the ends of the south façade colonnade. There are jamb foundations below and then the ends of the spur walls had the holes, metal clamps and stone plugs that are ordinarily associated with

revetment. This is a rare arrangement in the Esquiline Wing. Obviously, the jambs had some sort of heavy decoration that required both foundations below and extra adhesion to the jamb spurs. Unfortunately the analogous parts of Rooms 44 and 80 are obscured by later masonry and therefore cannot be used for comparison. Probably the best paradigm is provided by the octagonal Room 128, which had architectural decoration (Marble pilaster strips) applied using the same techniques as conventional revetment.

Most of Room 29's north lunette is missing. There was a low, segmental relieving arch spanning the entire width of the room, but only small fragments of the end of this arch are preserved. Its crown was not very high, perhaps 1.5 m above the colonnade lintel, so presumably there was not an incongruously tiny window cut through the available wall space. Room 29 would then have been the only north *sellarium* not to have a north window. Because Room 29 received abundant light from the south and because the entire north end of the room was opened through a colonnade, a north window would have been of little value. Above the segmental relieving arch is a completely semicircular arch fortifying the end of the room vault.

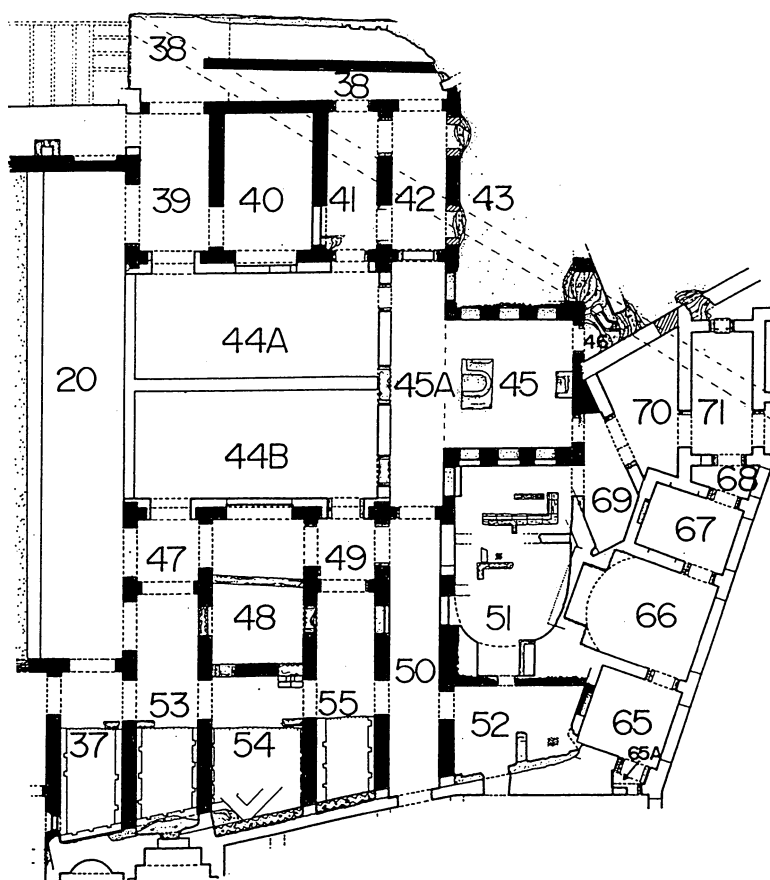
Obviously the relationship between the two side walls of Group 4 is one of the complexities in the West Suite that one would most like to have sorted out. The two Neronian phases must relate to each other, somehow, via the transverse wall group. If we had our way, the transverse walls would bond obviously with one side wall and abut the other in some informative manner. Maddeningly, however, the transverse walls are nearly worthless. I have already described the unique features of Room 29's alcove. The full height of the alcove means that Room 29 does not have a continuous cross wall spanning its south end. This may result from the special status of Room 29, but the masonry of the Group 4 transverse walls is heavily restored, so the anomalous design might, in fact, be modern. Most of the unrestored areas have lost their facing, so the masonry readings are few and unreliable. Provokingly, the brick dimensions are intermediate between Types E and F, making it impossible to assign them to either (for a small sample this is inevitable). The corners cannot be read confidently either. As far as I can tell, the transverse walls seem to bond with the Type E east side (i.e., with the party wall with Group 5), and not with the Type F west side wall. Whether the east side bonding is via prepared semibonds is unclear. If that is the case, however, then the Group 4 transverse wall design is original Type E material and part of phase 1. The evidence is extremely weak, however.

The masonry in Room 30 is badly encrusted and weathered, but it is fairly consistent all around. The south corners bond obviously. This suggests that the

southwest pier is all of one fabric, despite the apparent semibond in the southeast corner of Room 28. Ultimately, however, Room 30 adds nothing to our understanding of how the two Neronian masonry types relate to each other in Group 4.

3. THE NYMPHAEUM SUITE (ROOMS 37–55) AND THE NERONIAN SOUTH PARTY WALL

The Nymphaeum Suite takes its name from the distinctive waterworks in Room 45, a cascade centered in the east end and a fountain in the floor (Fig. 42). There were also waterworks in the small courtyards that flank Room 45, Rooms 43 and



42. Nymphaeum Suite (Rooms 37–55): State plan with Neronian phase 1 Type E highlighted (Room 45's more complex masonry is described in the text; currently only the core concrete of the side walls is from the original Type E).

51.¹³⁴ The Nymphaeum Suite is another of the symmetrical, axial complexes in the Esquiline Wing, in this case with its vista on the long axis of the West Court (Fig. 4). In Nero's estimation the Nymphaeum Suite was probably second only to the Octagon Suite, as its large rooms and fine appointments demonstrate. Both Neronian phases are manifested in the Nymphaeum Suite, although in plan the two are very similar to each other (Figs. 29 and 30). Room 44 was the core of the Nymphaeum Suite. Its main axis is defined as east-west by the colonnades forming its east and west sides, a visual orientation that the perfectly square room would otherwise lack. The ends of the axis are anchored by waterworks, the fountains in Room 45 to the east and the West Court fountain to the west. The West Court fountain originally extended farther to the east and west, emphasizing this axis, but the Trajanic foundations cut off the extensions.

The Nymphaeum Suite is the least symmetrical of the great axial complexes in the Esquiline Wing. The only truly symmetrical parts are the interiors of the two main rooms, Rooms 44 and 45, including their side doorways and windows, whereas the flanking rooms beyond are not symmetrical (Rooms 39–43 vs. Rooms 47–51). The asymmetry is accounted for by the fact that the Nymphaeum Suite was inserted between disparate pre-Neronian elements to the north, east and south. To the north there was Room 38, which Severus and Celer made into a grand staircase, an important area through which the emperor would regularly pass. To the south was the South Party Wall, forming the northern boundary of the East Suite. Rooms 52–55 are essentially spandrels between the core rooms of the Nymphaeum Suite and the South Party Wall. This is an area of little value, rarely if ever seen by the emperor. The only flanking rooms that appear to have been intended for extended use are Rooms 40 and 48, which are more nearly symmetrical than the other flanking rooms.

The Nymphaeum Suite has several distinctive features, including the fact that Room 44 is the biggest room in the whole Esquiline Wing. Rooms 44, 45, 43 and 51 were also carefully designed, despite the intruding pre-Neronian remains. They form an ensemble that is both more complex and more harmonious than, say, Group 4 in the West Suite. The more awkward rooms in the Nymphaeum Suite, such as the spandrel rooms to the south, occupy space left over after the truly important rooms had been designed carefully. They are similar to Room 30 in this respect, but unlike Room 30 they are peripheral. The Nymphaeum Suite is also the most complex design in the West Block. The Octagon Suite in the East Block still holds pride of place as the most elaborate design in the Esquiline Wing, but the Nymphaeum Suite comes very close to that standard, despite its simpler plan. Its decoration was apparently phenomenal too.¹³⁵

The Nymphaeum Suite is also the only part of the West Block where we can even hazard a guess as to the function of the rooms. As I describe later, its main motifs are derived from Roman domestic architecture (the atrium house type and the luxury villa), so it is reasonable to interpret the Nymphaeum Suite as some sort of domestic quarters. It is by no means clear for whom it was intended, however. Under most circumstances Nero probably lived in the bigger complexes on the Palatine, but the Octagon Suite is an obviously fine place to throw a banquet and it would certainly be comfortable to have a familiar domestic center nearby in the Nymphaeum Suite, a place where partiers could flop down for the night rather than lug their full bellies back up the Palatine. Alternatively, Nero undoubtedly housed his guests royally, as the ancient descriptions of Tiridates's visit to Rome attest. The Nymphaeum Suite could have been a guest house of suitably Neronian splendor. Both of these functions, and probably many others, could have applied to the Nymphaeum Suite simultaneously, of course.¹³⁶

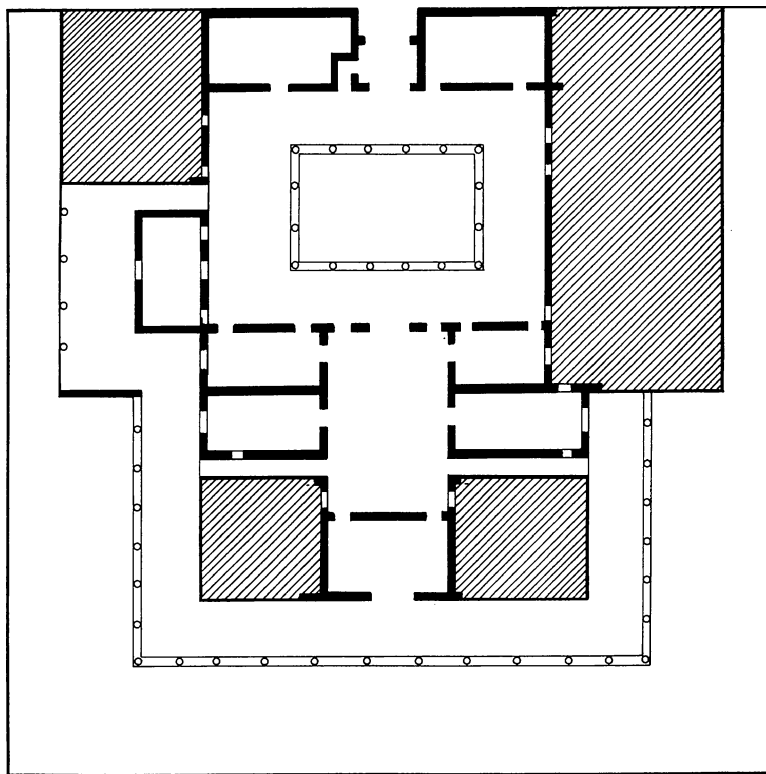
It is the design of the Nymphaeum Suite that reveals its nature, a pastiche of common domestic forms. As originally constructed in Neronian phase 1, the familiar motifs would have been obvious in both plan and in three dimensions, but the phase 2 modifications made the latter harder to sense. Previously I have argued for the Nymphaeum Suite's similarity to an atrium house.¹³⁷ This was not inappropriate because most of the key features of an atrium house do appear here, but in fact contemporary Roman villas are even better *comparanda*,¹³⁸ not least because the parklands gave the Domus Aurea an ersatz rural setting. The formal activities housed by an atrium house (clients saluting the patron, etc.) tended to be rigorously consistent, served by a specific set of relationships between the various rooms.¹³⁹ Nero's routine was anything but consistent, however, so his palace did not need to be configured rigorously according to old traditions. Nero's expression of *luxuria* certainly was one of the Domus Aurea's principle functions, and the Nymphaeum Suite expresses this essence more as a villa than as a house. Both houses and villas usually had the main features found in the Nymphaeum Suite, but villas relaxed the relationship between these features.

The villa motif in the Nymphaeum Suite is also noteworthy vis-à-vis its location on the periphery of the whole Domus Aurea complex. The main palace was undoubtedly on the Palatine, centered on the existing domus Tiberiana and the additions made to it by Caligula. The design of this cannot be reconstructed in detail, but it apparently was similar to the great Hellenistic palace at Vergina, a large square platform with the rooms arranged around a central square courtyard. It was the habit of Roman patricians to spend their time in the city in houses appropriate for that setting, and then to retire to their country villas for relaxation. By setting

up the Esquiline Wing with a villa motif, Nero gave himself this opportunity merely by walking over from the Palatine, passing through his own artificial rustic countryside, but arriving in minutes, without raising a sweat. The parklands and Nymphaeum Suite therefore gave Nero all the benefits of a country villa, including escape from the palace, while avoiding the tedium and discomfort of the long journey between.

A certain amount of imagination is needed to reconstruct the original Neronian phase 1 villa motif, however. In its final phase¹⁴⁰ the Nymphaeum Suite was vaulted and decorated as an artificial grotto. This is a powerful motif, both famous and well published, but it also distracts a visitor's attention from the original design.¹⁴¹ Instead, the phase 1 Neronian design had beamed roofs and ceilings in Rooms 44 and 45, most likely including a *compluvium* in Room 44, as I argue presently. With the later vaults and grotto decor banished from mind, the original Nymphaeum Suite design is remarkably similar to many contemporary villas. Detailed comparison with the Villa of the Mysteries in Pompeii demonstrates the point (Figs. 42 and 43).¹⁴² The similarity of these plans is obvious at a glance. The core of each has a main axis down the center with the main rooms lined up on it. In the Villa of the Mysteries the axis starts on the *fauces*, for which the Esquiline Wing has no counterpart (and no need). The first common element is therefore the peristyle garden court. There are detailed differences between the two courts, but their key features are similar, including a group of fine, large rooms opening off the court (*triclina* in the Villa of the Mysteries, the West Suite and West End Groups in the West Block). The transverse axis of the Villa of the Mysteries' court and the longitudinal axis of the West Court define the axes for the main domestic rooms.

In both cases, the *atrium* is the next room on axis. The side of the *atrium* facing onto the court is wide open, with three large doorways in the Villa of the Mysteries and the west end colonnade in Room 44. Both *atria* had symmetrical doorways for the flanking rooms on either side, and in both cases the designs of the flanking rooms are not symmetrical from side to side. In Room 44, however, the flanking rooms more closely resemble the typical *cubicula* from an *atrium* house. *Atrium* houses have *alae* flanking the *atrium* too, but villas tend to lack these, as is the case in both the Villa of the Mysteries and the Nymphaeum Suite. On the other hand, a symmetrical pair of transverse hallways appears in both, opening off the *atrium* itself in the Villa of the Mysteries and off Room 45A next to the *atrium* in the Nymphaeum Suite (the hallways are Rooms 42 and 50).¹⁴³ Room 44's original compluviate roof was replaced by the Neronian phase 2 vault and then by the Trajanic vaults that supplanted that.



43. Villa of the Mysteries, Pompeii: Schematic plan as originally designed (after Maiuri).

Next on the main axis is a fine sitting room. In the Nymphaeum Suite this is Room 45 and in the Villa of the Mysteries, it is the two axial rooms to the southwest of the *atrium*. Notably, this is not a *tablinum*, a feature appropriate for an *atrium* house but not for a villa. Exactly what one did in this fine room is not defined architecturally, but the room itself was obviously special. In the Villa of the Mysteries, it is the apsidal room with the splendid view of the Bay of Naples, while Room 45 had flanking courts with fountains in them, visible through windows on the sides.

Room 45 has more in common with conventional *tablinum* design, however. It is the focal point of the *atrium*, much more obviously so originally, when Rooms 44 and 45 were separated only by a colonnade. Room 45A originally had doorways on either side of Room 45 giving access to the two courtyards. Viewed from Room 44 these doorways would have looked like the *andrones* flanking a *tablinum*. Then,

when the *tablinum* motif was abandoned in Neronian phase 2, making these fake *andrones* superfluous, they were filled in to become statue niches.

In Room 45, the original design had three large windows in each side wall. Again, this is a common motif in Roman domestic architecture, including the *tablina* of traditional *atrium* houses (e.g., the House of the Faun in Pompeii). More important, in grand house and villa designs of the imperial period it is common to put a banquet hall in this location, either next to an atrium or as the first room on the main axis after a peristyle court. The most famous example of this is the great banquet hall in Domitian's Domus Flavia, with large windows on either side opening onto small open courts with fancy fountains in them.¹⁴⁴ The same is true, including the fountains in the flanking courts, in the House of Fabius Rufus in Pompeii (and elsewhere) and in lowlier examples throughout the western empire in the Imperial period. The recent work of Katharina Meyer is particularly informative in this respect.¹⁴⁵ A grand room with flanking windows, courts and *nymphaea*, is simply commonplace in fine domestic architecture in Imperial Rome. The fact that Room 45 is a perfect example of such an ensemble confirms the domestic nature of the original Nymphaeum Suite.

Meyer demonstrates that the line of central axial rooms in normal western Imperial houses tends to continue beyond the *tablinum* or banquet hall, as is also the case in grand *atrium* houses such as the House of the Faun, but the Nymphaeum Suite ends at the east end of Room 45, where the earlier Type D project intervenes. In the houses Meyer cites the inner portions tend to be given over to the most intimate domestic areas, expressed architecturally in the smallest rooms, analogous to a Turkish *harem*, whereas *atrium* houses tend to have their great peristyle gardens to light the *tablinum* or banquet hall. Rooms 43 and 51 served this function in the Nymphaeum Suite. They were open courtyards in both Neronian phases, providing Room 45 with ample light.¹⁴⁶

The only possible anomaly in the arrangement of the rooms on the main axis of the Nymphaeum Suite is Room 45A, which may have been hypaethral as originally designed. In an urban atrium house a hypaethral area between the atrium and the adjacent *tablinum* would be an oddity, but in contemporary villa design the motif is precedented, for example in the Imperial villa at Oplontis, where a small court intervenes between the atrium and the grand *triclinium* opening onto the north garden (Fig. 36, room 20). I suspect, therefore, not only that Room 45A was hypaethral, but also that this design predated the grotto motif now in Room 45, originating when Rooms 44 and 45 were thought of as a splendid example of contemporary villa architecture, not a grotto at all.

Room 38, the Grand Staircase

The masonry in most Nymphaeum Suite rooms is fairly simple and can be handled collectively, but four areas are more complex. These are Staircase 38, Rooms 44 and 45, and Courtyard 51. The masonry in Room 52 is also complex, but the room itself was never important, so its complexities fail to confuse. Of all of these, Staircase 38 is the easiest.¹⁴⁷

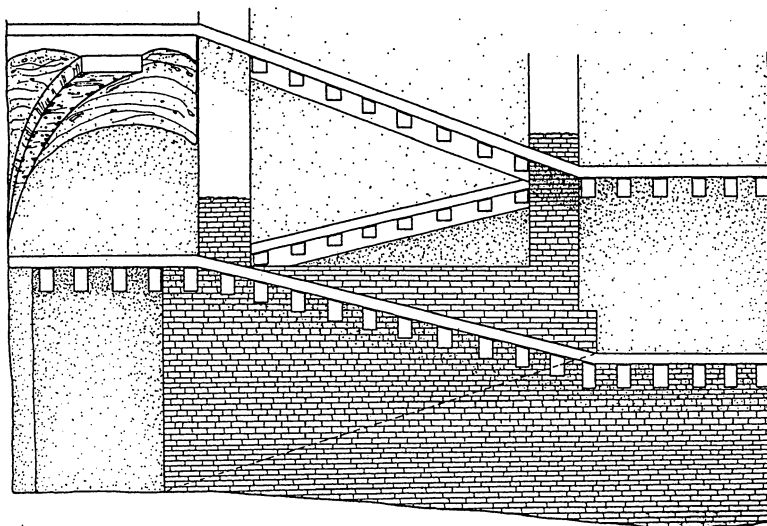
Fabbrini has established the existence of a *piano nobile* over the East Block, and the existence of Staircase 38 demonstrates that the West Block had one as well.¹⁴⁸ The West Block *piano nobile* has not been excavated, however, so its design cannot be reconstructed. Whether it covered the West Suite at all is unknown, although that certainly would have been a fine vantage point for the Domus Aurea parklands. The evidence from Room 44 suggests that the *piano nobile* either did not extend across the Nymphaeum Suite south of Rooms 39–42 or it consisted of light pavilions that would not obstruct skylight from the area of Room 44.¹⁴⁹ Lighter pavilions with an open terrace around Room 44 are an attractive hypothesis because this is what actually was constructed on the East Block around the open top of the octagonal Room 128. As far as the West Block's *piano nobile* is concerned, however, all we know for certain is that it was entered from the top landing at the west end of Staircase 38. Because the East Block *piano nobile* gave access to the west over the area of Rooms 70–83 in the Pentagonal Court, undoubtedly the entire *piano nobile* complex was linked together. This is merely common sense, however, and tells us nothing about the design. On the other hand, the *piano nobile* of the East Block opened through a colonnade to the north, across a pool. We do not know what was originally there to be viewed, but the East Block *piano nobile* was clearly designed to view something to the north at that level. Conceivably, therefore, Staircase 38 may have provided access only to whatever was farther to the north, rather than to a *piano nobile* on the West Block. Obviously a magnificent excavation project awaits above the West Block.

The design and masonry chronology of Staircase 38 are clear in any case. It is the only grand staircase in the Esquiline Wing, indeed one of the few *grand* staircases in Roman architecture.¹⁵⁰ It is not normal for Roman architects to devote a great deal of plan space to monumental staircases,¹⁵¹ and the implications of this one are therefore interesting. Given Nero's well-documented personality,¹⁵² it is not surprising to find anything that is, like Staircase 38, both grandiose and abnormal. Other emperors were perfectly happy with staircases that simply got them to the next floor, with enough light available to avoid injury. The melodramatic Nero,

in contrast, apparently needed to sashay as he did so, expressed architecturally by the novelty of Staircase 38. The fact that he felt the need to promenade along a mile-long triple colonnade expresses the same character. Given Nero's influence on Roman architectural design, the fact that later architects reverted to less flamboyant staircase designs is telling. This is not to deny the creativity of Rabirius's staircase in the domus Augustiana,¹⁵³ but it is simply not as grand or as spatially interesting as Staircase 38 in the Esquiline Wing. In the domus Augustiana the actual staircase is just two narrow flights, at right angles, with one landing between. The windows giving a view into a small fountain court are admittedly a fine feature, but the staircase itself is unimpressive. The splendid Staircase 38 is a *hapax* in the history of Roman architecture, demonstrating that Nero's influence was selective. The same is true of his most distinctive feature, the vault haunch clerestory, described presently.

Staircase 38 is complex, as Figure 44 illustrates. This is an unmeasured reconstruction of its elevation from the south. There was an internal wall down the center of the room, rather like the *spina* of a *stadium* (Fig. 42), around which the staircase ascended in four shallow ramps. One entered at the west end, ascending the bottom ramp along the north side of the *spina*.¹⁵⁴ The first landing was at the east end of the *spina*, as Figure 44 shows. The landing spanned the entire width of the room, giving access to the bottom of the second ramp on the south side of the *spina*. The rest of the ascent is easily traceable from the beam sockets that supported each flight. The inner support for the beams, above the *spina*, consisted of beams supported by vertical piers at the ends of the *spina*, as Figure 44 shows. The second landing was above the entrance, spanning the entire room again; the third flight was on the north side of the *spina* above the first, and the fourth flight was above the second, continuing up to the top landing at the west end. The modern ceiling and Trajanic modifications obscure the details at the top of the staircase. The top landing was supported by a vault – probably a barrel vault, but it is so badly decayed that it might be an unidentifiable groin vault instead. The vault appears on Figure 44, but the large diagonal arch below it is part of the Trajanic modification.¹⁵⁵ The south side of Staircase 38 is not visible above the top landing, so the doorway leading from it to the south cannot be reconstructed, but it is certainly just above the crown level of the vault of Room 39. Because the top landing spanned the entire west end, it is also probable that doorways opened off it in other directions as well.

For all its grandeur, complexity and convenience, Staircase 38 was also a utilitarian structure with an important job to do, and therefore worth designing carefully. Accordingly, Staircase 38 is a compact and efficient design, obviously well thought out and reasonably well lit by skylight filtering down through the ramps, passing



44. Staircase 38: Schematic elevation drawing reconstructing the outline of the *spina* and the course of the four ramps and landings. The top landing and the Trajanic arch below it are cut by the section line.

through the open space between the piers on the *spina*. Its location was also well chosen, out of the way in a back corner of the West Block, yet also reasonably accessible from anywhere in the Pentagonal Court or West Block areas. The space it occupied is a remnant from pre-Neronian design, therefore not encumbering Severus and Celer's freedom to design whatever else they wanted throughout the rest of the Nymphaeum Suite. This practice is also analogous to their reuse of the Pre-Neronian West End Group as the Neronian slave quarters – handy, efficient, cheap, fast and entirely out of the way. Even though Staircase 38 is extraordinarily grand by Roman standards, it is nevertheless a room that one would pass through quickly, so setting it where it does not inconvenience rooms that would be used for long stretches, such as Rooms 40, 44 and 45, is yet another indication of the clever balancing of needs, opportunities and inventiveness that Severus and Celer demonstrate throughout the Esquiline Wing. Finally, the fact that the four flights are ramps rather than steps meant that Nero did not even have to pick up his feet. For all its simplicity, Staircase 38 is a brilliant design.

The masonry of Staircase 38 is more complex, however, as well as informative in significant ways. The first two masonry phases are pre-Neronian, having nothing to do with the staircase per se. In the southeast corner, just north of the door to Room 42, there is a small remnant of the pre-Neronian Type D project, illustrated in Figures 6 and 42. This is the spur left from a Type D wall that originally ran

through this area, cut off to make way for a later phase, although precisely which later phase is uncertain. The second phase is the outer perimeter wall in unfaced concrete, forming the west end, north side and the east end north of the Type D spur. The material is analogous to the terrace retaining wall of the West End Group, but the deep channels that the west end shares with the east half of Corridor 19's north side link this phase with phase 2 in Corridor 19, either Type C or slightly earlier (Figs. 11 and 42). The purpose of the deep channels is no more clear in Staircase 38 than it was in Corridor 19, but whatever function they served originally was certainly not appropriate in a staircase; the space occupied by Staircase 38 was reused from a project of different function.

There is one remnant of fresco decoration from this second pre-Neronian phase. This is on the north side wall, even with the west end of the *spina*. In Figure 45 it is the darker vertical strip to the left. Both this earlier fresco program and the later Neronian frescoes were applied directly to the unfaced concrete, proving that there never was any facing throughout the Neronian period. The earlier scheme is in third style as far as can be told from the small remnant. It appears to be well preserved, including a maroon ground. Its location explains its preservation; in the Neronian design a curtain wall was added between the west end of the *spina* and the north side wall. The curtain wall did not bond at either end, but simply adhered to the facing of the *spina* at the south and to this patch of fresco at the north. This one strip of earlier fresco was therefore pinned in place by the curtain wall and thereby protected when the rest of the original decoration was replaced by the Neronian scheme. The Neronian decoration also passed onto the curtain wall. When the wall fell away, the angles where the Neronian decoration returned onto it broke off, leaving lips at the edges of the pre-Neronian remnant. Their relative chronology is therefore obvious; the frescoes prove that the last pre-Neronian phase was both built and decorated before the Neronian phase.

The rest of the Neronian construction is easily traced. It is all canonical Type E, with no seams or other complications, obviously built in Neronian phase 1 and unchanged thereafter. The Type E walls are the *spina*, the tiny bit of the east end between the intruding Type D wall and the southeast corner, and the whole south side of Staircase 38. The four Nymphaeum Suite rooms to the south, Rooms 39–42, all bond with this wall.

The only irregularities in the Type E walls are a small doorway cut between the first landing and a mezzanine added in Room 42, later than Neronian phase 1, and an arched top for the doorway opening into Room 39 created by cutting out the lunette beneath the half-round relieving arch. The latter was obviously intended



45. Staircase 38: North side, next to the bottom landing. The vertical dark band at the right is the remnant of pre-Neronian third style (?) frescoes pinned against the wall by a Neronian curtain wall spanning to the north from the west end of the *spina*. The bottom of the first ramp is directly below this.

to provide more light for the bottom of the staircase. Because the patron used the grand staircase, the value of the extra light is obvious.

The decoration in Staircase 38 is a fairly typical example of the standard Neronian service corridor type, although it is not clear to which of the two Neronian masonry phases it belongs. There was preparation for a revetment socle and low dado on the south side of the *spina* and on the south side wall. The first flight was prepared for a revetment socle, but no dado, whereas there was no revetment preparation above the first landing. The actual revetment appears never to have been applied, however, replaced by rather crude, thick plaster, vaguely resembling revetment, in a scheme similar to the final decoration in several rooms of the Nymphaeum Suite (e.g., Rooms 41, 47 and 50).

Rooms 39–43¹⁵⁶

Rooms 39–43 were part of the original construction of the Nymphaeum Suite in Neronian phase 1, all made of Type E masonry and all bonding together.¹⁵⁷ The

one possible exception is the southwest corner of Room 42 where the two walls have cracked apart. This is most likely a true bond that was cracked apart when the added vault in Room 44 changed the structural statics. If so, then the break is meaningless. Alternatively, however, Room 45 has two main Neronian phases and this crack could also be a semibond between them. If so, then it is the only Neronian period modification in the entire group under discussion. It is also more properly a matter for Room 45, where the masonry involved is explained in detail.

The design motifs in Rooms 39–42 are clearly derived from common domestic architecture. These were simply stated, before the later modifications in Rooms 44, 45 and 51 fundamentally changed the whole ambience of the Nymphaeum Suite. Notably the same thing was true for the West Suite, where the original statement of the phase 1 design ideas was clear, then rendered less obvious when the more elaborate phase 2 changes were inserted.

Rooms 39–42 are the rooms flanking the main axial core of the Nymphaeum Suite, on the north side. In design they resemble West Suite *sellaria* in that they are longitudinally barrel-vaulted north-south rectangles, with large doorways and small, high windows at the south ends, and a transverse file of doors linking the rooms across their south ends. Of these features, the only one needing emphasis is the south end windows. These were original to the Type E project, built into the walls, with the sides of the window frames faced in brickwork contiguous with the rest of the wall and the apertures spanned by typical flat relieving arches. Figure 46 is a detail of the window in Room 40, showing its faced sides clearly. These windows do not have two phases like the north *sellarium* windows of the West Suite, but were small, high skylights from the start.¹⁵⁸ Room 40 was probably the only one that was used as a *sellarium*, however. All of the others were basically passageways between all the other spaces around them, and Room 41 was nearly superfluous, not serving any function or providing any features that were not available more conveniently in Room 42 just next to it. In many ways, Rooms 39–42 are entirely subordinate to Rooms 44 and 45, their most important function being to provide doorways in the sides of Room 44, to make it look like a canonical *atrium*. Rooms 39 and 42 also gave easy access from anywhere in the Nymphaeum Suite to Staircase 38 and Corridor 19, whereas Room 39 also had a *sellarium*-like opening on its west side because it opened onto the West Court (Fig. 7, far left). Rooms 39, 41 and 42 are poor *sellaria*, but they work well as passageways. In contrast, Room 40 could well have been a sitting room, a private dining room, or anything else for which a large, conveniently shaped, easily accessible, well-lit and yet reasonably private room might be used.



46. Room 40: The small skylight in the south end lunette. The Neronian phase 1 Type E facing forms both the wall surface and vertical sides of the window (right).

The only complex masonry chronology is in the northwest corner of Room 39. The complications derive from Corridor 19, recurring and confirmed in Room 39 (Fig. 7). The pre-Neronian remnant surrounds the doorway between Corridor 19 and Room 39, with a clear seam between it and the Neronian phase 1 Type E to the south of it (in Fig. 7 the seam is ca. 0.5 m to the left of the small doorway at the right, lighter than the wall fabric). The rest of the perimeter of Room 39 is Type E, as marked on Figures 29 and 42.

The south *sellarium* door frames of Rooms 39–41 have a layer of Type F masonry, but this relates to the major phases of Room 44 and is discussed under that rubric. Here it is sufficient to note that the small, high *sellarium* windows did not open into Room 44 when the vault was installed, but opened above it, onto the haunches of the vault. This is the first example of the motif I call a vault haunch clerestory, most famous for its use in the Octagon Suite. Figures 48 and 49 illustrate the configuration, but the explanation for the phase 1 reconstruction appears under the heading of Room 44.

There are also modifications of unclear date, but clearly later than Neronian phase 1. Rooms 40 and 42, but not 41, had mezzanines added within them supported by joists whose sockets remain in the side walls.¹⁵⁹ Both mezzanines

occupied the northern two-thirds of the rooms, with that of Room 40 accessible via a west-east staircase and that of Room 42 through a doorway cut through the north end wall to the first landing of Staircase 38. The mezzanine in Room 42 therefore has more to do with the staircase, being accessible only from it and completely sealed off from the rest of Room 42. This is an odd configuration, something like a large guardroom controlling the staircase, but the mezzanine was also reasonably well decorated, so it was apparently not a lowly storage or service room.

The south *sellarium* door in Room 40 was filled in, later than Neronian phase 2, whose masonry it abuts. The original fill had a smaller doorway through it, later filled in, and then both were decorated under Otho. The side door between Rooms 40 and 41 was also filled in, in Neronian phase 1 or later, possibly in conjunction with the added mezzanines in Rooms 40 and 42, but the masonry chronology is not informative.

The decoration in Rooms 39–42, although not consistently preserved, is of the typical Neronian type for fine rooms intended for extended use by Nero. It is a distinctive scheme found only in the Nymphaeum Suite, recognizable by its limited and delicate use of relief stucco, just single colonettes between the large fresco panels.¹⁶⁰

The South Nymphaeum Suite (Rooms 37, 47–50 and 53–55)

This heading comprises all Nymphaeum Suite rooms south of Rooms 44 and 45A, referred to collectively as the south Nymphaeum Suite.¹⁶¹ Rooms 47–50 are pendant to Rooms 39–42 in location, but only vaguely pendant to them in design, whereas Rooms 37 and 52–55 are little more than spandrels between the core of the Nymphaeum Suite and the South Party Wall. The masonry of the south Nymphaeum Suite is entirely Neronian phase 1 Type E, all bonding together and integral with the original phase 1 construction of Rooms 44, 45 and 51 (described in detail later), as well as with the Neronian phase 1 West Suite (Fig. 29). There are no Neronian phase 2 Type F modifications in the south Nymphaeum Suite other than those associated with Room 44 (Fig. 42).

The only crucial masonry evidence in the south Nymphaeum Suite is the fact that the South Party Wall was pre-Neronian (Chapters 3.2 and 3.3), with the Type C of the East Suite being the last pre-Neronian phase. The south Nymphaeum Suite was built up to it notably later than Type C. The evidence is clear, illustrated by Figures 16.4, 17.4–5, 18 and 19. The East Suite had to remain standing in Neronian phase 1, most likely because it is a fine little ensemble that Severus and

Celer wanted to retain in their own design, but possibly also because Nero did not yet own that property and therefore had to leave it standing. In either case, the Type C remained as it was, whereas the Types B and Y on the north side of the Type C had already decayed, leaving an irregular surface on the north side of the South Party Wall (Fig. 17.3). As Figures 17.4 illustrates, Severus and Celer simply built their Type E walls up to this irregular surface, imbedding the Type B and Type Y remnants at the south ends of the Type E walls. Severus and Celer knew full well that this area was inconsequential and made little attempt to improve on this awkward arrangement, except where absolutely necessary. In nearly worthless rooms (e.g., Rooms 52 and 55), the irregularities were simply left as they stood. In inconsequential rooms that Nero might at least glimpse, different degrees of refinement were applied. The Type Y at the south ends of Rooms 37 and 53 still had a relatively flat surface, albeit lacking most of the original brick facing, and here Severus and Celer simply applied decoration right onto the Type Y core concrete, obscuring the damaged masonry. Rooms 53–54, and especially Corridor 50, were passageways that provided some handy access between the West Suite, East Suite and Nymphaeum Suite, so they had to be treated somewhat better. In all cases, the Type B masonry of the South Party Wall that projected above Neronian floor level (Fig. 17.4) was trimmed even with the Type E wall surfaces (Figs. 17.5), leaving small segments of Type B imbedded at the south ends of the Type E walls (Figs. 18 and 19). Corridor 50, finally, ran up against the South Party Wall in an area that had originally had no use for a doorway in the pre-Neronian period, so a doorway was cut through the Type C, which was all that remained of the South Party Wall in that area once the Type B had been trimmed away (Figs. 17.6, 20 and 42).

The relationship between the south Nymphaeum Suite and the South Party Wall is more important than the rooms themselves, however, because the masonry demonstrates that there was some time lapse between Type C and Type E, nudging the Type C project significantly (albeit not distantly) into the pre-Neronian period. They clearly represent two design projects, not flawlessly compatible with each other, and with a phase of decay for the Types B and Y between them. “Decay” is a crucial notion here; the decay of Types B and Y was not razing as part of the Neronian project, which is specifically identifiable as a different step. The decay took place *before* the Type E was built up to the South Party Wall, whereas the Neronian razing of the Type B remnants took place *after* the Type E was built. This is good, efficient procedure on the part of Severus and Celer. They knew they did not need to focus much time or effort in this area, because they had a much more important project underway just to the north in Rooms 44 and 45. South of Rooms 44 and 45 all the architects needed to do was fill the gap with

something suitable (I discuss the design of the south Nymphaeum Suite presently; it is entirely in keeping with the standards and motifs of the contemporary phase 1 West Suite). Then, when the walls and vaults were completed, Severus and Celer could walk through the south Nymphaeum Suite and decide which needed no improvement and which needed to be neatened up for possible brief viewing by Nero. This, then, is when the trimming of the Types B and Y took place.¹⁶² All in all, they chose well, as the subsequent masonry history of the south Nymphaeum Suite demonstrates; this area started out being of little consequence and became ever less important over time.

The design details and construction techniques in the south Nymphaeum Suite match the original Type E construction in the West Suite, giving a good sense of what existed in the West Suite before the Type F modifications. The plan explains most of the details at a glance (Figs. 29 and 42). The techniques and aesthetics are similar to the West Suite as originally constructed in Type E. The area was divided into four long, thin north-south spaces, which I call tubes. The tubes were longitudinally barrel vaulted and divided into various smaller rooms by short cross walls. Four main tubes span from Rooms 44 and 45A to the South Party Wall, with Room 37 as a small spandrel between the western tube, the West Court and the West Suite. Room 37 was treated like a West Suite *sellarium*, especially in the design of its doors and windows, but it is much smaller because it had to fit into the constricted available space.

The West Suite's motif of alternating design features appears in the south Nymphaeum Suite as well, including the fact that the tubes are of varying widths and are divided by cross walls that do not line up from tube to tube, so some tubes have small rooms at the north end (Rooms 47 and 49) and some large (Rooms 48 and 50). The alternation motif is more obvious in plan than in situ, again similar to the West Suite. Also like the West Suite, there are three transverse files of doorways running east-west across the tubes, albeit so closely spaced that the wall segments between the doorways are little longer than the widths of the doors.¹⁶³ The middle transverse file is unique in that its openings on either side of Room 48 were windows, not doorways, proving that the whole file was an aesthetic motif, intended to give a view, rather than access.

Room 48 is the only important room in the south Nymphaeum Suite, pendant to Room 40 in both position and utility. It is by far the biggest room in the group, opening into Room 44 through the larger, central doorway on its south side. Room 48's tube is also wider than the others, making the room much more spacious. It is, in fact, the only room in the group that actually looks like a room rather than a long, thin tube.¹⁶⁴ Rooms 40 and 48 are obviously components of

the Nymphaeum Suite core group, providing two large, useful rooms and defining a major cross axis through Room 44 (marked accordingly on Fig. 4).

Unlike Rooms 39–41, however, Rooms 47–49 were not built with windows in their north lunettes facing into the area of Room 44. Figure 48 shows the original configuration. Rooms 47–49 may have been thought of as summer rooms, not needing the light, whereas the high windows in Rooms 39–41 would have caught direct sunlight even when the sun was low in the winter sky. The other possibility is the entire group south of Rooms 44 and 45 was never considered important, and therefore no effort was made to light it well.

Everything else in the south Nymphaeum Suite is leftover space. Rooms 47 and 49 are small squares with almost no walls because the doorways on all sides span nearly from corner to corner. In situ they hardly feel like defined spaces at all. Their primary function was to provide flanking doorways in Room 44, pendant to Rooms 39 and 41, but one would only enter Room 47 or 49 with the intention of continuing elsewhere. Similarly, Room 50 and 53 are obviously corridors providing handy access between the Nymphaeum Suite and the East Suite and West Suite. They were more pleasant than most rooms of this group because they had direct lighting from the hypaethral Room 51 and West Court, respectively. Nero himself may have used Corridor 50 rather infrequently, because parallel access was available through the more pleasant Pentagonal Court *sellaria*, but the south Nymphaeum Suite was decorated to the same standard as the other Nymphaeum Suite rooms intended for Nero. Rooms 54 and 55 were spandrels, hardly useful except for rapid passage, and were quickly given over to lowly functions.

The history of later modifications in this group is informative, similar in nature to the West End Group, but different from the modifications of the West Suite. The West Suite was always a grand and important area, clearly intended for Nero himself. Modifications in the West Suite would therefore be for greater comfort and splendor. In contrast, Nero had little use for the south Nymphaeum Suite, other than to pass quickly through, so there would be no point in making these rooms more comfortable. Aesthetically, the best treatment was to close off the parts adjacent to the South Party Wall entirely, eliminating that unpleasant ambience from the more desirable adjacent rooms to the north and west.

Room 48 is the only possible exception. Because this was a major *sellarium*-like room opening off Room 44, Nero might well have used it, so improvements in its comfort or utility would have been worthwhile. Unfortunately, Room 48 was also repeatedly modified after it had been abandoned for the emperor's use, at a time that cannot be specifically related to Nero (i.e., any time from Nero through the whole Flavian period). There is therefore abundant evidence for modifications to

the doorways and windows, but whether these were parallel to the filled doorways in the West Suite is uncertain. The evidence for lowly reuse in Room 48 is obvious, however, including several crude decoration schemes and an inserted mezzanine and staircase. All of these late modifications took place after Room 48 was separated from Room 44 by the fill in the great *sellarium*-like doorway between them, either in Neronian phase 2 or the Othonian period.

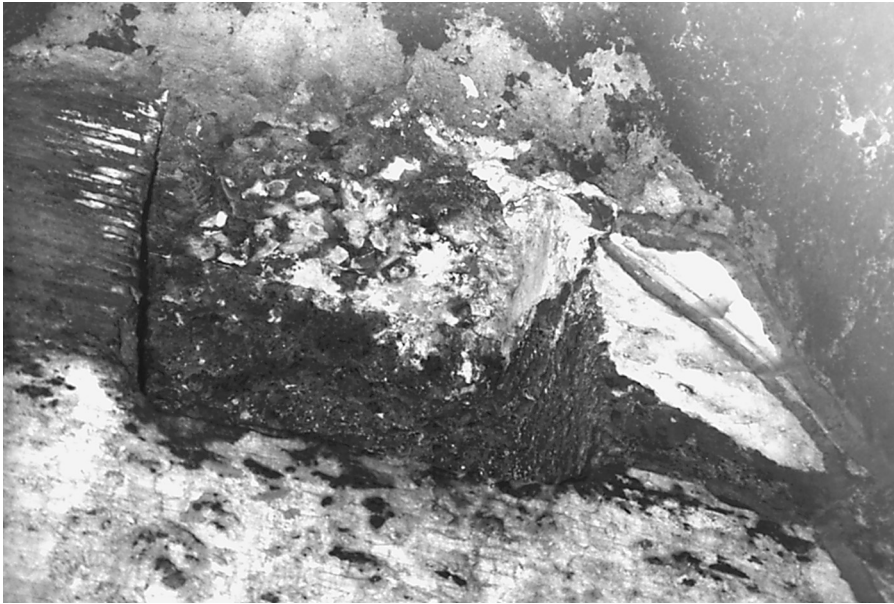
The fill in the *sellarium*-like doorway between Rooms 44 and 48 has the same two-stepped chronology as the similar doorway between Rooms 40 and 44 (Figs. 30, 42 and 50). That is, the doorway was first filled after Neronian phase 2, leaving a smaller doorway through the fill. That smaller doorway was then filled and the final (Othonian) decoration in Room 44 was applied to both. The most likely interpretation is that the major fill was Neronian phase 2, dating to when Rooms 40 and 48 had their extra floors inserted. Rooms 40 and 48 were service or storage areas at this point, accessible via the small doorways left in the fill. Then the small doorways were filled in so that Otho's grotto decoration scheme could be applied along the whole wall.

Figure 47 illustrates another interesting change. When Room 44 was vaulted in Neronian phase 2 (discussed later), it became darker, reducing the light in Rooms 48 and 49, which had no other source. High skylight windows were therefore *cut* through the north lunettes of Rooms 47–49, revealing the core concrete in the sides of the windows, as Figure 47 illustrates. These windows are the first known examples of vault haunch clerestory windows created intentionally, keeping in mind that the analogous lunette windows in Rooms 39–41 were not vault haunch clerestory windows as originally built. The skylights in Rooms 47–49 would have provided little light, but the need for whatever light could be obtained must have been keenly felt. The need would have been especially great once the mezzanine was inserted in the south Nymphaeum Suite.

In sum, the architects obviously must have struggled with Room 48, with many attempts to make it more appealing, none entirely successful. Eventually, probably when this area was further darkened by the addition of the Neronian phase 2 vault in Room 44, all south rooms of the Nymphaeum Suite were regarded as hopeless, walled up and given over to lowly functions.

A Chronological Overview of Rooms 44, 45 and 51

Rooms 44 and 45 are not only the axial core of the Nymphaeum Suite, but also the chronological crux of the whole Esquiline Wing. Along with Room 51, they must be considered in detail, which their complicated masonry certainly



47. Room 47: The small skylight cut through the north lunette (a vault haunch clerestory window facing onto the Neronian phase 2 vault over Room 44). The sides of the window reveal exposed core concrete (right), proving that the window was cut through, rather than built in.

demands. Room 44 makes good sense and its evidence is consistent and clear. Rooms 45 and 51 are more challenging, but their complications closely parallel the chronology of Room 44. Before I describe the masonry, perhaps it makes sense to lay out the whole chronological framework for Rooms 44, 45 and 51, providing a chronological armature onto which the masonry evidence can be applied. Here are the main phases, illustrated by Figures 29, 30, 42, 48 and 49:

1) All three rooms were built in Neronian phase 1. Room 43 probably was too, as a small, irregular open court pendant to Room 51 (Fig. 29 reconstructs the most likely configuration, including the diagonal east side wall left over from the Type D project). In Room 44 the masonry is Type E, but the issue is more complex in Rooms 45 and 51, where the evidence must be described in detail. Room 44 was a perfect square in plan with colonnades of four columns at its east and west ends. I discuss presently why I reconstruct a *compluvium* roof in the original version of Room 44. Rooms 39–41 north of Room 44 had high skylights in their south ends, as we have seen, opening above the *compluvium* roof and giving them direct sunlight throughout the day. Rooms 47–49 to the south had no such skylights. Room 45

had a pitched beam roof and three windows on either side, but these windows were considerably higher in the walls than the windows that are there now (Figs. 53, 54 and 61). The east end of Room 45 was built up against pre-Neronian structures, whereas the east side of Room 51 consisted mostly of reused pre-Neronian walls (Fig. 29). The east side of Room 51 was also of irregular, diagonal design, pendant to Room 43, whose east side was a diagonal wall from the pre-Neronian Type D project.

2) In Neronian phase 2, the great barrel vault was added in Room 44 (Figs. 30, 42 and 49). This rested on the north and south side walls, which were doubled in thickness to support it. The added masonry is Type F. The core concrete of the Type F walls was laid against the Type E walls without intervening Type F facing. The lintels over the large doors to Rooms 40 and 48 were fortified with travertine impost blocks. The colonnades remained at the east and west ends of Room 44, matched by the added colonnade in the West Court. Skylight windows were cut high in the south side to light Rooms 47–49. In this phase Room 45, too, had its pitched roof replaced by the barrel vault that remains today (Fig. 53). This sprung from lower in the wall than the original pitched roof, where it would have interfered with the high phase 1 windows. The windows therefore had to be moved lower in the wall, leaving their original relieving arches at the higher level in Room 51. Room 51 was heavily revised in this phase, including the addition of its large apse. Much of the evidence for phase 1 was swept away at the same time, so interpreting Room 51 is laborious.

3) In Room 44 the first round of minor revisions is not specifically datable, but they are later than the phase 2 Type F and may be *pentimenti* within that project. They include the fillings in the large doorways to Rooms 40 and 48 (Figs. 42 and 50). As noted earlier, the fill in each included a smaller doorway, which was filled in turn, but it is not clear if this was itself a *pentimento* within the filling of the large doorways. Because the Neronian phase 2 constructions in both the West Suite and the flanking rooms in the Nymphaeum Suite have a phase of door-fill *pentimenti* between the wall construction and the main decoration, this is probably the correct phase for the large door fillings in Room 44 too. The smaller doors were more likely filled in the next phase. There are abundant *pentimenti* in Rooms 45 and 51 too, but they cannot be dated beyond their being later than Neronian phase 2.

4) The east end colonnade in Room 44 was replaced by a wall of Othonian Type L masonry, leaving the Neronian column foundations imbedded under it. The grotto decoration in Room 44, at least on the vaults and lunettes, dates to this phase because it passes onto the Type L lunette. The similar motif in Room

45 probably dates to this phase as well, but does not actually touch the Type L masonry. In Room 45 the windows on the north and south sides were filled in as part of the decoration scheme of this phase. In Room 51 the myriad changes later than Type F cannot be dated to any specific project.

5) There is no evidence in Rooms 44 and 45 for lowly reuse, but possibly some of the modifications in Room 51 correspond to them. The only post-Othonian revisions in Room 44 are the Flavian spoliation and then the Trajanic foundation walls that replaced the west end colonnade and divided the room into north and south halves (Fig. 42). Room 45 has no masonry later than Otho, but it, too, was spoliated.

Room 44: Neronian Phase 1 Type E

Reconstructing the original Neronian phase 1 design of Room 44 requires some imagination. Little of its Type E masonry is visible from inside the room, most of it having been covered by the layer of phase 2 Type F added to support the vault. The original design was simple, however, and the evidence for it unambiguous. Comparison between the phase 1 illustrations (Figs. 29, 42 and 48) and the phase 2 illustrations (Figs. 30 and 49) illustrates the Neronian design evolution.

I have noted already the similarity between the plan of the Nymphaeum Suite and contemporary Roman house and villa design. In this context Room 44 is the *atrium*. Its main features are certainly *atrium*-like: a large, square room with one main axis defining its ends and symmetrical groups of small doors opening into flanking rooms on either side. Contemporary *atrium* design was not consistent in detail from one example to the next (keeping in mind that “contemporary” in this case correlates to the final phase at Pompeii, after the earthquake of A.D. 62), but the main features of Room 44 are all common. Having colonnades on both the east and west ends is a bit excessive (as was Nero, of course), but a large *atrium* opening through one colonnade into a garden court was normal. The Villa of the Mysteries and House of the Vettii at Pompeii and the great villa at Oplontis are a few famous examples of the motif.¹⁶⁵

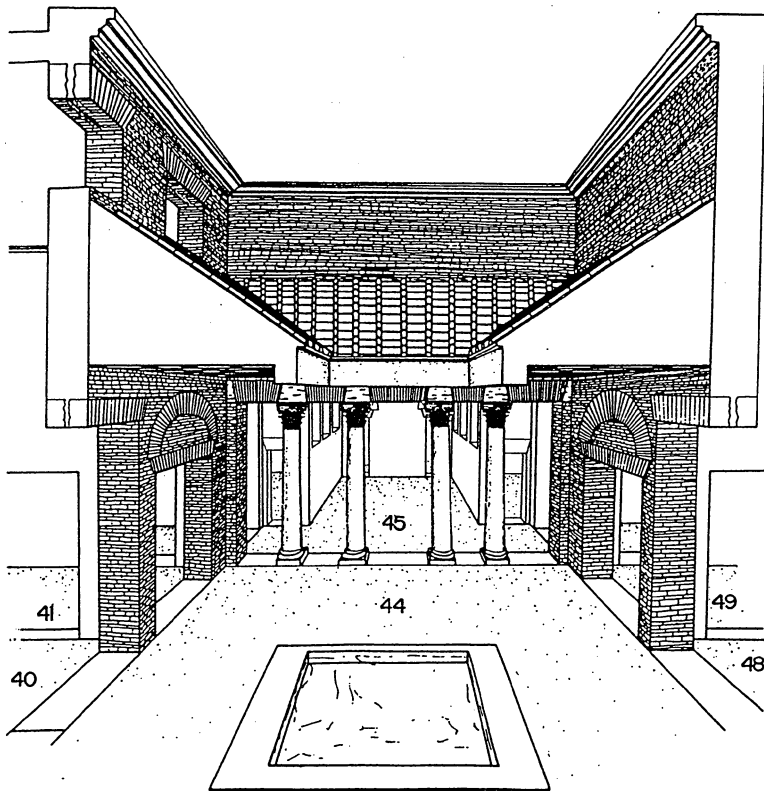
The rooms off the sides of the *atrium* are also normal. In the Nymphaeum Suite we have seen that the rooms south of Room 44 were of questionable utility, but their function probably had more to do with creating a proper domestic ambience in Room 44, that is, Roman tradition required doorways on either side of the *atrium* whether or not there was any specific purpose for the flanking rooms. In the Villa of the Mysteries (and commonly in older *atrium* houses throughout Pompeii) the flanking doors had long since been filled in, to become faux doors of

purely decorative purpose. At the villa at Oplontis the flanking doors never existed; they were only painted in fresco, without any correspondence to the rooms on the other sides of the walls.¹⁶⁶

The colonnades in Room 44 can be reconstructed in some detail, even though they have been replaced at both ends. The east colonnade foundations remain imbedded at the bottom of the Othonian wall between Rooms 44 and 45A, whereas parts of the travertine impostes and tile flat arches remain at both ends (Figs. 34 and 35).¹⁶⁷ The phase 1 design of the west end is clear. The colonnade was definitely built before the phase 2 modifications. The outermost travertine impost blocks (i.e., in the jamb spurs in the corners of Room 44) were imbedded in and contemporary with the phase 1 Type E wall. The Type E masonry also passed above the colonnade, supported by it, spanning the entire west end of Room 44 (Fig. 34.1). The West Court colonnade was then added as a revision, with appropriate rafter sockets cut into the Type E masonry (Fig. 34.2).

The phase 2 modifications in Room 44 came after the colonnade. When the phase 2 vault was added in Room 44, it manifested itself outside the room in the form of great tile arches fortifying the ends of the vault. These appear in Room 45A, spanning the entire top of the wall between Rooms 44 and 45 (Fig. 35) and above the colonnade roof in the West Court (Fig. 34.3). The fact that the West Court colonnade already existed is demonstrated by comparison of these two tile arches. In the wall between Rooms 44 and 45 the arch is the complete semicircle, covering the entire east end of the vault. At the west end of Room 44, in contrast, the arch is segmental, spanning only the top part of the vault above the level of the West Court colonnade's rafter sockets. Obviously the vault respects the West Court colonnade, so the colonnade already existed.

The phase 1 design inside Room 44 can be reconstructed only speculatively, but all of the available evidence is consistent with a compluviate atrium. Obviously it was not vaulted, because the vault rests exclusively on phase 2 masonry added on the inner surfaces of the phase 1 side walls. The conundrum is what covered Room 44 in phase 1, before the phase 2 vault replaced it. A simple roof at the level of the rest of the West Block must be ruled out, however, because the lunette skylights in Rooms 39–41 were obviously intended to take advantage of a light source in the area of Room 44. A roof at the top would have blocked the light. There are three possible alternatives. First, Room 44 could have been entirely hypaethral. Second, Room 44 could have had an elevated roof with a clerestory projecting above the roof level of the rest of the West Block. The clerestory would have provided light to the skylights in Rooms 39–41. Third, there could have been a *compluvium* roof (or some other similar design) lower down in the walls of Room 44, at a level



48. Room 44: Section and perspective drawing reconstructing Neronian phase 1 (Type E) as here interpreted, in the form of a compluviate *atrium*. The section line is through Rooms 40, 44 and 48. The Neronian phase 1 skylights of Rooms 40 and 41 appear at the upper left (with faced sides and relieving arches), while Rooms 48 and 49 did not have pendant skylights in this phase. The Corinthian order of the colonnade is conjectural.

between the doors and skylights of Rooms 39–41. The windows of Rooms 39–41 would receive direct sunlight above a roof at this level.

The easiest of these possibilities to address is the raised roof with clerestory windows. This is unlikely both because it was not a typical motif in the Esquiline Wing and because an elevated roof in this location would have projected up into the *piano nobile*. We know this is the only area in the West Block where a *piano nobile* certainly existed because the top landing of Staircase 38 gave access to it at the north end of Room 39. These arguments do not rule out an elevated roof over Room 44, but it would have been an awkward design.

The actual windows in Rooms 39–41 provide better evidence in any case. We know Neronian architects designed windows according to different kinds of

available light and the Esquiline Wing provides several paradigms with which the lunette windows in Rooms 39–41 can be compared. When maximum light was desired and there was no colonnade on the far side of the wall, the window was made very large, the same width as the door, set immediately above its flat arch lintel. This is the original configuration of the north *sellaria* in the West Suite and in the Type X *sellaria* of the Pentagonal Court (65–67, e.g., Fig. 13). As the West Court colonnade has already shown, this configuration is not possible when there is to be a colonnade on the far side of the wall because wall space is needed above the doorway for the colonnade's rafter sockets (Fig. 32). If there is to be a colonnade on the other side of the wall, the window must be a skylight set high in the wall to open above the colonnade's shed roof. This is the original configuration of the south *sellaria* in the West Suite, whose windows accommodated the south façade colonnade of the West Block. It is also the configuration of the second phase of the north *sellaria*, once the bigger original windows were filled in to accommodate the added West Court colonnade (Figs. 31 and 32.3).

Obviously, this is also the configuration of the skylights in Rooms 39–41 (Figs. 46 and 48), which suggests that Room 44 was not entirely hypaethral because, had that been true, Rooms 39–41 could have had larger windows to take better advantage of the available light. Rooms 39–41 are well recessed from the West Block façade, so they could benefit from as much light as could be conducted into them. Instead, the windows were designed from the start to be tiny high skylights. They must have been set above something, which had to be in Room 44. Because the windows are integral to phase 1, they opened into the original design of Room 44, before the phase 2 vault, so whatever forced them to be so high in the wall existed in phase 1. The most likely reconstruction, therefore, is a roof intermediate between the doors and windows of Rooms 39–41. This kind of fenestration results from a colonnade everywhere else it appears in the Esquiline Wing, and if we reconstruct one inside Room 44, we end up, for all intents and purposes, with a *compluvium* roof. None of this proves that Room 44 had a *compluvium* roof in phase 1, but given the domestic plan of the Nymphaeum Suite, the fact that the roofing and fenestration appear to correspond to a typical *atrium* is consistent. Figure 48 has been reconstructed accordingly.¹⁶⁸

Figure 48 illustrates one other important feature of Room 44. The major axis, passing through the center of one colonnade, across the central *impluvium* and on through the center of the other colonnade, is a well-known Neronian motif. It is best known in the famous cruciform vestibule from the Domus Transitoria, now imbedded in the foundations for Hadrian's temple of Venus and Roma.¹⁶⁹ There, too, the motif is a longitudinal progression of spaces with transverse screens of

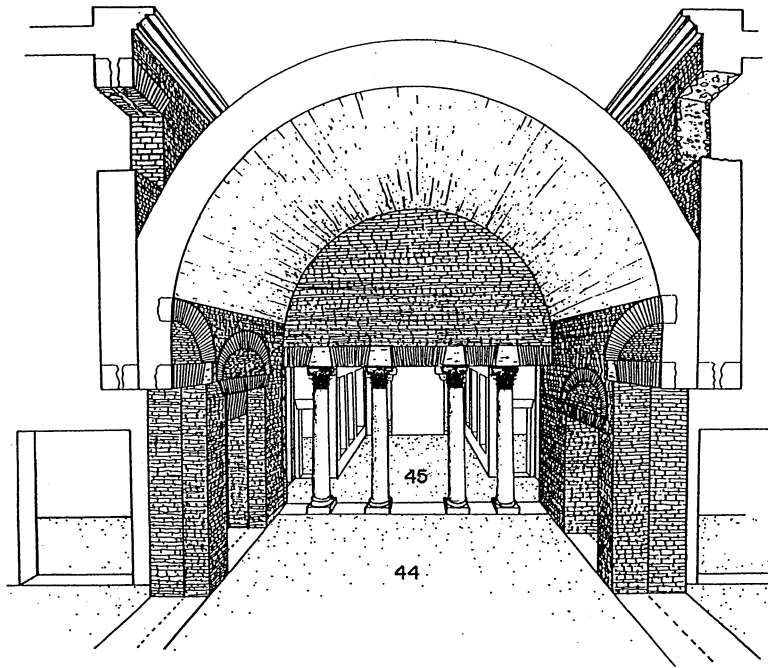
columns and an *impluvium*-like pool in the center of the hall. MacDonald notes the spatial complexity inherent in this design. The axis of the group is obvious and a viewer can look along it easily, between the central intercolumniations and across the pool. Walking along the axis is impossible without getting one's feet wet, however. The design forces the viewer to move through space in several directions, in a manner more complex than the design suggests at first glance. This is inherent in a traditional *atrium* house too, and it appears to be a motif favored by Severus and Celer. Because I interpret phase 1 in the Esquiline Wing as the *Domus Transitoria*, it is interesting to note that here in Room 44 we may have the second appearance of this motif in that project.

Room 44: Neronian Phase 2 Type F

The masonry in phase 2 is the same Neronian phase 2 Type F as the phase 2 modifications in the West Suite. Also like the West Suite, the Type F revisions in Room 44 followed immediately after the original Type E construction, using some of its leftover bricks. The phase 2 Type F sample is small, despite Room 44's grand scale, because it consists only of the layer of material added on the inner surfaces of the north and south side walls, holding up the great vault (Figs. 30, 42, 49 and 50).

Type F masonry appears nowhere else in the Nymphaeum Suite; it is associated exclusively with the vault inserted in Room 44. The phase 1 Type E walls were originally built when no vault was intended, so they are structurally inadequate, just 2.5 feet thick. In phase 2, therefore, the walls were thickened by an additional two feet, undoubtedly with substantial new foundations below the new masonry, to make much sturdier support. The vault was enormous by Neronian standards, spanning 46 feet, that is, the original fifty-foot square minus two feet at each side for the thickened walls. The relationship between the two phases is most obvious in Figures 49 and 50. The Type F masonry was faced only on the exposed, outer side, whereas the inner surface consists of unfaced core concrete laid up to the Type E facing. The flat arch lintels are similar, with broken *bipedales* forming only their exposed surfaces.

Applying a layer of nonbonding Type F to the Type E wall surface is a poor structural system, with a fracture plane penetrating the wall from top to bottom. The Type F engineers obviously knew that and incorporated a number of other features to strengthen the walls, including travertine impost blocks to strengthen the flat arch lintels of the larger doorways (to Rooms 40 and 48) and extra layers of Type F masonry, one foot thick, inserted under the existing Type E lintels of



49. Room 44: Section and perspective drawing reconstructing Neronian phase 2 (Type F). The section line is the same as Figure 48. The Neronian phase 1 skylights of Rooms 40 and 41 have become vault haunch clerestory windows, *de facto*, and pendant vault haunch clerestory windows have been cut in the north lunettes of Rooms 48 and 49.

most of the smaller doorways (Figs. 30 and 42). These provide additional support to the Type E lintels and reduce the spans of the doorways by two feet. Because the springing level of the vault is just above the doorways, the lintels bore more load than is normal practice in Roman concrete. Shoring them up made obvious sense.

I have already discussed the end walls of Room 44, above the first-phase colonnades, which were modified in phase 2 by the insertion of great tile arches from the ends of the added vault (Figs. 34 and 35). Figure 34.3 illustrates how the Type F material passed under the phase 1 lintel at either end of the colonnades, narrowing the outermost intercolumniations by one foot (see also Figs. 30 and 42; the layer is not two feet thick because it imbeds a one-foot jamb spur from phase 1). The narrowed intercolumniations confer no structural benefit, because the colonnade carried no load from the added vault. It merely continues the phase 2 side wall surfaces smoothly through the colonnades.

The fact that Type E needed to be fortified with Type F to support the vault proves that Type E was built with a different design concept in mind. This is

confirmed by the profound aesthetic changes made by phase 2. The crown of the vault was much higher than the *compluvium* roof's ceiling, but the space would have seemed somewhat cramped because the springing level of the vault was low. That made the room proportions rather squat, close to 1:1.¹⁷⁰ Room 44 would not have been claustrophobic because of its absolute size and the open colonnades at the ends, but it would have appeared a bit odd. Figures 35 and 51 give some sense of its proportions. The vault emphasized Room 44's east-west axis better than the *compluvium* roof had, however.

The loss of the *compluvium* changed Room 44 in several ways. The rainwater had to be collected at the edges of the vault, rather than falling into the central *impluvium*. Gutters were added along the north and south edges of the vault and



50. Room 44: North side, view to the north through the doorway into Room 40.

downspouts were cut into the corner piers, whose channels can be seen in Room 45A and the West Court. The downspout channels also extend to the roof level above, so as to serve the *piano nobile* as well.

The aesthetic changes in Room 44 were achieved with little additional masonry. This is an important part of the aesthetic personae of Severus and Celer, a recurrent theme in this book.¹⁷¹ They were masterful in this technique, making changes that are physically tiny, yet aesthetically fundamental. Their success in Room 44 resonates ironically through all previous scholarship. That is, modern scholars heretofore have failed to notice the close similarity between the Nymphaeum Suite and contemporary Roman villas. That is because the villa motif was phase 1, which is aesthetically overwhelmed by the new design of phase 2, making the villa motif hard to sense; the phase 2 aesthetics are so emphatically stated that phase 1 becomes invisible. Thus, not only does a visitor to Room 44 not detect a trabeated *atrium*, but also a trabeated *atrium* seems contrary to the spirit of the place. The low, round shape of the vault lends itself perfectly to the dark and enclosed ambience of the final grotto decoration scheme. A grotto is easy to reconstruct mentally, indeed it is difficult to imagine that anything else ever belonged here. It is easy, then, to assume that the grotto motif was the only design concept Room 44 ever had and that the masonry must have been designed for that purpose from the start. A trabeated *atrium* is never even considered. The masonry evidence proves otherwise, however. Severus and Celer were both commendably clever and highly efficient; by thickening two walls and adding a vault in Room 44 (and the same in Room 45), the traditional villa interior vanishes completely, unnoticed by generations of modern scholars.

The low level of the vault also indicates that Severus and Celer did not have a completely free hand in phase 2 (see Figs. 5 and 49). The vault had to spring from low in the walls so that its crown did not interfere with the *piano nobile* above. Also it was desirable, if possible, not to block the light from the skylights of Rooms 39–41. Accordingly, on the *piano nobile* I reconstruct an open terrace around Room 44, with an opening over Room 44's barrel vault similar to the one that surrounded the octagonal dome of Room 128 (Fig. 5).¹⁷²

The two Neronian phases in the Nymphaeum Suite relate to each other in exactly the same ways they did in the West Suite. Phase 1 Type E was completed before any Type F modifications were started. In the West Suite the chronology is somewhat more clear because the phase 2 repairs in Groups 3–5 prove that phase 1 was a standing entity damaged against the architects' will, that is, that they wanted to retain it and were willing to repair it before the phase 2 modifications. That sequence clearly separates phases 1 and 2 into disparate projects, driven by

different needs and different designs, in addition to the fact that they were executed at different times. The insertion of the West Court colonnade, as a separate project clearly intermediate between phases 1 and 2, confirms this chronology. This applies equally to the West Suite and Nymphaeum Suite. Finally, the fundamental change in design that Type F represents in Room 44 confirms that the Type F project was an intentional change from Type E. Severus and Celer had moved on to something different, something that the phase 1 walls and foundations were incapable of holding up. Once again, therefore, the Nymphaeum Suite proves that Types E and F are not two steps in one construction project, but are different design projects, the later phase intended to change the earlier.

In Room 44 there is no evidence for destruction and repair analogous to Groups 3–5 in the West Suite. I have argued that the change from phase 1 Type E to phase 2 Type F is the step from *Domus Transitoria* to *Domus Aurea* and that therefore Type F came after the great fire of A.D. 64. One fire-proofing provision after A.D. 64 was Nero's decree that reconstruction would take place *sine trabibus*, "without beams", as reported by Tacitus.¹⁷³ Nero would have been as eager as anyone else to fireproof his own palace, so the parts that had been trabeated in phase 1 had to be vaulted in phase 2. There may well have been other reasons Room 44 was vaulted in phase 2, but this was certainly a contributing factor; in A.D. 64–8 fire proof architecture was very much on Nero's mind.

This point is crucial because it means that building the vault in Room 44 was not entirely voluntary, but was a response to the unforeseen intervention of the fire. That, in turn, helps explain one of the most important and distinctive Neronian design motifs, which I call the vault haunch clerestory. The motif is most famous for its appearance in the Octagon Suite, illustrated by Figures 72, 73 and 75, but it also appears in Room 44 (Fig. 49). A vault haunch clerestory window is the kind found at the south end of Room 40 in phase 2. It is high under the crown of the Room 40 vault, at the same level as the crown of Room 44's vault next to it. But because the Room 44 vault is on an axis perpendicular to Room 40, the outside of Room 40's lunette stands on the springing line of Room 44's vault. So a window in Room 40's lunette opens onto the haunch of the Room 44's vault. It is not a true clerestory because it does not project above the prevailing roof level, but it functions in a similar fashion. In the Esquiline Wing the vault haunch clerestory is a valuable motif because it allows skylight into important ground floor rooms of both the Octagon Suite and the Nymphaeum Suite, yet it does not force a true clerestory to project up into and interfere with the *piano nobile* above.

The masonry chronology in Room 44 is even more informative than that, however, in that it explains how the vault haunch clerestory motif was first discovered.

I use the word “discovered” purposefully; my thesis is that the vault haunch clerestory motif was not invented, but stumbled upon, that it was the natural and inevitable result of a number of convergent factors, none of which involved the intentional design of this motif. The sequence from phase 1 to phase 2 is: 1) the phase 1 original construction of the Domus Transitoria; 2) the West Court colonnade, added as a later modification (but this is not needed in the current argument); 3) the fire of 64; 4) repairs of damage in the Domus Transitoria; and 5) phase 2 design revisions. The East Block adds just one other step to the Neronian chronology: 6) construction from a completely clean slate in the Domus Aurea phase, once repairs and revisions were completed in the Domus Transitoria. This sequence of steps is not the least bit radical in concept and the masonry evidence for it is unambiguous, but in Room 44 it also has profound implications. Specifically, these steps indicate that the vault haunch clerestory motif did not have to be invented at all, but would simply materialize as a matter of happenstance.

In Room 44 specifically, the sequence of steps were as follows:

1) Neronian phase 1, Type E, Domus Transitoria. In this phase Room 44 was part of the Nymphaeum Suite as originally designed, based on common domestic motifs. Its configuration as a compluviate *atrium* has already been noted. Rooms 39–41 had small skylights in their south lunettes opening over the *compluvium* roof in Room 44. Staircase 38 was an integral part of the design, proving that the Nymphaeum Suite had a *piano nobile* in phase 1.

2) The colonnade was added in the West Court next to Room 44, most likely as a *pentimento*, but later than the completion of Neronian phase 1 in any case.

3) The great fire of A.D. 64: there was definite destruction in Rooms 27 and 29, but the fate of Room 44 cannot be reconstructed specifically. Whether or not Room 44’s original beamed *compluvium* actually burned in the fire, the fact that it was beamed made it unacceptable. In the wake of the great fire it had to be replaced.

4) In Neronian phase 2, the Domus Aurea project, the first step would be to repair and consolidate after the fire. The modifications needed in Room 44 were obvious: a vault had to be inserted, so the insufficient phase 1 structural system had to be fortified in order to support it. The phase 1 *piano nobile* was retained, *so the barrel vault in Room 44 had to be set very low so as not to interfere with it.*

5) The vault was built accordingly, respecting the existing West Court colonnade roofline at the west end. *The east-west orientation of the barrel vault was determined by the existing main axis of the Nymphaeum Suite.* The removal of the *compluvium* roof would have indicated the best place to set the springing level of the vault, between

the phase 1 doors and windows. A vault set at any other level would have been much less desirable, either blocking existing doors or windows or interfering with the *piano nobile*.

6) As Severus and Celer were considering where to put the vault, and specifically trying not to block the doors or windows with it, they noted that the lunette windows in Rooms 39–41 would still provided useful clerestory lighting for Rooms 39–41, despite the fact that they would now open onto the haunch of the new vault. The windows, I emphasize, were remnants from a previous design, when no vault was envisioned for Room 44. The fact that the new vault would not occlude them if it were set low in the wall probably came as a pleasant surprise.

It is worth contemplating the vault haunch clerestory motif in detail at this point. The window itself is not remarkable, being a simple rectangle with a flat arch or vault segment above it. It is the spatial relationship between the window and the vaults around it that define a window as a vault haunch clerestory. There are just three definitive factors: the consistent prevailing roof level, the window set high in the lunette of one room and the transverse orientation of the low barrel vault in the room next to it. All of these factors existed in the second phase of Room 44, *a priori*. The *piano nobile* defined the required crown level for all vaults in this area; the high window level was established by the previous *compluvium* roof design; and the orientation of Room 44's added barrel vault was determined by the axis and vista for the whole Nymphaeum Suite. A vault haunch clerestory results from this combination without anyone actually designing it. Indeed, had Severus and Celer *not* wanted vault haunch clerestory windows around Room 44, they would have been obliged to fill in the ones that naturally occurred there.

7) The vault haunch clerestory window, as a type, was recognized as a great idea, especially in the context of the Esquiline Wing's *piano nobile*. One particularly important feature of the vault haunch clerestory that probably occurred to Severus and Celer at this time was the dramatic lighting effects that could be created by using them. Similar effects had existed when the windows had been simple skylights opening above a *compluvium* roof, but they would have been visually less dramatic for several reasons. Most important, the compluviate atrium had exactly the same light source, with the sun beaming in through the *compluvium* in the same way and at the same angle as it came in through the skylights. Thus, even though a viewer in the atrium could see that the rooms to the north had direct sunlight, that light would seem unremarkable because its source and nature were identical to what the viewer was experiencing in the atrium. Also, because the *compluvium* was open to the sky, the viewer could see the light source itself, or if the sun were not visible, then certainly the viewer could see that the sky was bright. Light streaming in from

above was not visually mysterious in any way. Finally, the beamed atrium roof did not have the visual weight of a masonry vault.

All of these factors changed fundamentally when the vault was added in Room 44. The *compluvium* vanished both as a light source and as a way to see that the sky was bright. Instead, there was the heavy, dark masonry vault, replacing the lighter-feeling beamed roof. Room 44 became a dark space only indirectly lit, horizontally, through the colonnades at its ends. At the same time, though, Rooms 39–41 retained their skylights, now made into vault haunch clerestories by having the vault added next to them, but otherwise unchanged in configuration. The direct sunlight beaming into Rooms 39–41 remained the same. The thing that changed was the impression the viewer had of that lighting when looking from Room 44. Now Rooms 39–41 had a completely different kind of light from Room 44 – better too – and it streamed in from above, which, from the point of view of Room 44, was from the darkest, heaviest part of the room, the largely unlit vault. Room 44 was by no means unpleasant in this phase, but its greater darkness and the clearly different kind of lighting in the adjacent rooms certainly did set up an aesthetically interesting contrast. Surely Severus and Celer liked what they saw. Certainly the motif that made this interesting lighting effect possible, the vault haunch clerestory, was going to be a feature they would try to incorporate in future designs, especially when trying to be particularly creative.

Accordingly, they made a tentative first attempt right in the Nymphaeum Suite; vault haunch clerestory windows were cut in the south side of Room 44 to let some light into Rooms 47–49. As already noted (Figs. 47 and 49), these windows were not part of the original phase 1 design at all, but were simply cut through the phase 1 concrete. Rooms 47–49 and 52–55, were never well lit and the closure of the phase 1 *compluvium* in Room 44 probably made the problem acute. Their new vault haunch clerestory windows would not have been very effective because they were small and faced north, but they would at least have given some additional skylight to Rooms 47–49 and made them look less sepulchral when viewed from Room 44.

It is noteworthy that the East Block, including the Octagon Suite, does not have a two-phased Neronian chronology analogous to the West Block. It is all one project in Neronian phase 2 Type F masonry, all bonding together, with no reused phase 1 walls at all. Obviously the Octagon Suite was designed completely from scratch. The Octagon Suite is therefore the final step in the vault haunch clerestory sequence – a phase 2 design constructed in its entirety once the phase 1 remnants had been repaired and improved. The repairs to the Domus Transitoria

were necessary, indeed urgent, and had to be executed first. They could also be undertaken immediately, because little substantial designing needed to be done. Making desirable aesthetic modifications during the repair stage makes perfect sense too. The East Block must be later than the phase 2 revisions in the West Block. If Severus and Celer discovered the vault haunch clerestory while revising Room 44, then it is not surprising that they also incorporated this fine new motif in the Octagon Suite; it was their own idea and undeniably novel, discovered at the same time that they were designing the East Block.

We return now to the fill in the doorways to Rooms 40 and 48 and the grotto decoration motif. The main door fillings are later than or part of Neronian phase 2 Type F, which they abut, and earlier than or part of Othonian Type L, whose decoration program covers both phases of fill. The most likely chronology, of course, is that the major door fillings date to Neronian phase 2, whereas the smaller doorways were filled in when the Othonian grotto decoration was applied. This chronology is parallel to the decoration in Room 48 and the overall chronology of Room 45. Room 48 had frescoes wherever the room could be seen from Room 44, which means that some opening was left between the rooms. When the smaller doorway was then sealed, Room 48 was consigned exclusively to utilitarian purposes, including the inserted mezzanine that cut the frescoes.

I emphasize this chronology because of what it tells us about the doorway configuration. This is exactly analogous in both design and chronology to the repairs in Groups 3 and 4 of the West Suite. In the West Suite the Neronian phase 2 repairs replaced the wall between Rooms 27 and 29 exactly according to its original phase 1 design, making no major design changes. The next step, also in Neronian phase 2, was the filling of the doorways in that same wall. The Neronian phase 2 decoration scheme then covered the fill in the doorway. Obviously, therefore, the structural work on the wall was conducted separately from the decoration. Had the two been coordinated, it would have been faster, easier and sturdier to rebuild the wall without the doorways at all. In Room 44 the situation seems to be the same. The phase 2 vault was built retaining all of the phase 1 doorways. These large apertures were a nuisance in the phase 2 design, requiring lintels fortified by travertine impost. Only when the structural work was completed did the decorators make their aesthetic modifications, including the first phase of doorway fillings. The structural work and the decoration were obviously carried out separately, or else the phase 2 side walls could have been built from the start with the much sturdier smaller doorways. Here again, just as in the West Suite, the structural masonry and the masonry added for aesthetic reasons appear to be somewhat disparate, yet they are also apparently all part of Neronian phase 2.

Room 44: Phase 3 (Type L) and Phase 4 (Type M)

Type L masonry is the last occupation phase in Room 44, with only the Trajanic Type M bath foundations coming later. Type L forms the wall between Rooms 44 and 45, replacing the Neronian colonnade that had been there originally (cf. Figs. 29 and 42). This wall is chronologically crucial because its Type L masonry is clearly post-Neronian, no longer even *III Periodo*, yet its relationship to the Neronian phases is also clear because it abuts the Type F of Neronian phase 2. The lunette has remnants of Room 44's grotto decoration motif on it, so it must be a phase when the patron still occupied the Esquiline Wing. Were it not for the literary tradition concerning the Domus Aurea, the Type L wall could not be accounted for at all, but the literary tradition *does* exist and this wall fits it perfectly. It can only be the brief yet expensive dabbling in the Esquiline Wing attributed to Otho by Suetonius.¹⁷⁴ The chronological window for the Type L wall is narrow, from January to April in A.D. 69, but the change to completely new sources of materials and assembly techniques clearly indicates a patron other than Nero. The fact that the wall was lavishly decorated, an obvious attempt at sumptuous living, is contrary to Flavian usage, and the irregular spacing of the leveling courses of *bipedales* is not standard Flavian practice. This Type L wall must therefore date to the civil war years of A.D. 68–9. Suetonius' reference to Otho, then, indicates which of the three brief reigns in A.D. 68–9 was actually responsible.

The Type L wall completely replaced the east end of Room 44, including the colonnade and the lunette above it. The column foundations were left in place and additional wall foundations were laid in between them. The large arch of *bipedales* that fortified the phase 2 vault (Fig. 35) originally sprang from eight courses above the Neronian colonnade lintel. These eight courses and the colonnade lintels below them had to be broken out,¹⁷⁵ but the Neronian phase 2 lunette above them did not bond with the phase 2 *bipedales* and fell away cleanly from the arch. The Type L was inserted to fill the space, abutting all surrounding surfaces. The three large doorways and three superposed windows that appear in Figure 35 indicate that the wall was intended as a curtain wall, but not a barrier. Room 45A apparently remained hypaethral (or else was made hypaethral at this point), providing Room 44 with light via the large, high windows.¹⁷⁶

The Type L wall was intended to demarcate a much clearer separation between Rooms 44 and 45 than had been the case with the Neronian colonnade. Only the central doorway gives access and a direct line of sight from Room 44 to Room 45. The two outer doorways are set right in the corners, opening into the ends of Room 45A. They look from Room 44 into the niches that had formerly been

doorways between Room 45A and the courts flanking Room 45 (Rooms 43 and 51). It is an odd arrangement, indeed inexplicable, and its awkwardness is enhanced by the fact that the outer windows above do not register on the doorways (Fig. 35).

The Type L wall's only remarkable feature is its own great relieving arch, set just below the arch from the Neronian vault (Figs. 35). This arch is visible only on the east side of the wall, where it interferes with the relieving arches over the upper level windows. The arch is concentric with the Neronian phase 2 arch above it, but does not span the entire width of Room 44, springing instead from the higher level of its own window sills. Inside Room 44 the preserved decoration in the lunette obscures the arch, which can only be presumed to exist there (Fig 51).

The last masonry phase in Room 44 is the Trajanic Type M used for foundations for Trajan's baths. Room 44 is the only room in the Esquiline Wing whose Neronian vault was razed and replaced in the Trajanic period. A Type M wall was built down the center of Room 44, as indicated on Figure 42. This supports two Trajanic barrel vaults, each of less than half the Neronian span. Type M also forms the entire west end, replacing the Neronian colonnade, including its foundations, and the lunette above it, as shown in Figure 34.4. The Type M cross wall abuts the Type L wall in the center, partially blocking the central door and window (Figs. 42 and 51). The Neronian vault was broken out roughly, leaving a substantial remnant at the springing level. Because the span of a semicircular barrel vault determines its height, the Trajanic vaults were approximately half the height of the original Neronian vault. In order to have their vaults crown at the same level as the rest of the West Block the Trajanic engineers had to set them at a higher springing level.

On the north and south sides of Room 44, Trajanic wall masonry had to be added on top of the scars where the Neronian vault was broken out to reach the necessary springing level. Because the Trajanic engineers were not building an occupation phase, they did not care how the interior looked and therefore did not bother to trim off the rough edge of the Neronian vault below. In Figure 51 the remnant of Neronian material, with its lighter Othonian decoration, appears at the upper right, with the darker Trajanic vault above it.

Trajanic construction throughout the Roman Empire attests to the technical mastery attained by Trajanic engineers. This is important because their structural expertise appears to explain why they reduced the span in Room 44. The octagonal Room 128 serves as a foil. Room 128 is the same span as Room 44, but the Trajanic engineers felt no need to subdivide it. Apparently they were confident that Room 128 would remain structurally sound while Room 44 needed to be strengthened.¹⁷⁷ Despite the aesthetic lightness of the Octagon Suite, from a structural standpoint it is actually much sturdier than Room 44. It is a bonding, integral unit and

the rooms around the dome provided both support for the dome and substantial foundations all around. The two phases in Room 44 make such a monolithic structural system impossible. This is crucial structurally; even though the north and south sides of Room 44 were 4.5 feet thick in Neronian phase 2, the vault was only directly supported by the inner two feet of masonry. This was separated from the outer 2.5 feet by a fracture plane that the Trajanic masons could see in the door frames. So the Trajanic engineers knew Room 44 was structurally problematic, sufficient to support itself but tenuous as support for their own project. Inadequate foundation is always a disaster and the Trajanic engineers took no risks. By dividing Room 44 in half they reduced the load on the side walls to approximate that held by two-foot walls throughout the Esquiline Wing. By doing so they confirmed that the Neronian phase 1 structure did not anticipate or provide for Neronian phase 2.

There is only one detectable decoration phase in Room 44, the final, Othonian version. The main features of this are relatively clear except for the missing parts of the vault. There is no way to tell if there was a completely different Neronian scheme before it or if parts of the Neronian scheme were reused by Otho.¹⁷⁸

Predictably, the extant program was overwhelming, as either Nero or Otho would have demanded. The outer edges of the floor were paved in rectangular panels whose traces in the bedding mortar are preserved in the southwest corner. Interleaved rectangles of this sort can be seen forming the borders of the apparently Neronian *opus sectile* pavement preserved under the fountains flanking the Domus Flavia banquet hall on the palatine.¹⁷⁹ The splendid *opus sectile* inside simple frames must be taken as a paradigm for the Neronian floor of Room 44, although the Trajanic foundation wall has obliterated any trace of the design.

The walls were entirely clad in revetment from a projecting socle to the springing line of the vault. The Type L wall also had revetment to the same level, that is, to the bottom of the lunette. The panels were arranged in a complicated pattern of large rectangles separated by narrower framing panels, in several registers. At the top of the revetment was a projecting element, perhaps a cornice in relief stucco. Because revetment like this is not in keeping with a grotto motif, perhaps it is a remnant from Nero. It did cover all phases of fill in the side doorways, however.

The remnants of the vault retain bits of mosaic decoration, as does Otho's lunette (the bedding mortar is the lighter material at the top of Figure 51), but few tesserae remain in situ. Because the lower portions of the vault in Room 80 (Sala della Volta Dorata) were also decorated in mosaics, it is possible that this is normal Neronian practice, which Otho simply repeated on the lunette when he added his wall. The corners between the side walls and the lunette were articulated with a line



51. Room 44: South half (Room 44B in Fig. 42), overview to the east. L–R: Trajanic Type M foundation wall partially blocking the central doorway to Room 45A. The Othonian Type L wall between Rooms 44 and 45A with decoration remnants and, at the top, the profile of the original Neronian phase 2 vault preserved in the lighter colored decoration (dark Trajanic vaults above); Neronian Type F south side wall with doorway to Room 49.

of seashells, a motif that recurs in Room 45. It is not known if the decoration in Room 44 is contemporary with Room 45 because the decoration in Room 45 never touches the Type L wall between them. They need not be contemporary, on a stylistic basis, because the schemes may have been somewhat different. Room 44 appears to have been quite well finished in traditional media, whereas the vault in Room 45 was deliberately roughened with applied pieces of pumice to mimic a grotto. Otho might well have inserted the Type L wall to segregate the aesthetic incongruity. Lacking most of Nero's vault in Room 44, however, the point remains

moot; Room 44 could well have had the grotto motif higher up, as the seashells in the corners of the lunette may indicate.

Overview of Rooms 45, 46, 51 and 52

I approach the convoluted masonry chronology of Rooms 45, 46, 51 and 52 with deepest respect. Their masonry is the most complex in the Esquiline Wing and, in concert with Room 44, the most informative. Evaluating them is no simple matter, however. Some minor post-Neronian revisions cannot be fully elucidated, but the Neronian and Othonian occupation phases can be reconstructed with confidence. We concentrate on Rooms 45 and 51, which are intimately linked to each other and whose evidence is mutually supporting. Rooms 46 and 52 are minor spandrels that are considerably easier to interpret.

The setting of Rooms 45 and 51 in the Nymphaeum Suite has already been discussed. The intended use of these rooms is unclear in any phase, although in Neronian phase 1 Room 45 was similar to a villa's *triclinium* or to the *tablinum* in an atrium house (Fig. 29, 42 and 52). Whether its function changed when the design was changed in Neronian phase 2 and the Othonian period cannot be determined, nor can the waterworks in Rooms 45 and 51 be reliably dated. In Room 51 they are out in the center of the space, not adjacent to any other masonry and therefore not relatable to any known chronological datum. In Room 45 the waterworks have two components, an undatable pool on the room axis (presumably equipped with a fountain) and a cascade abutting the center of the east end wall. The end wall is therefore the *terminus post quem* for the cascade, but because the facing is Neronian, the cascade could be either Neronian or Othonian. The two decorative schemes in Room 45 do not help; they are a conventional scheme of revetment under frescoes and an artificial grotto – both suitable settings for waterworks. In short, the waterworks in Room 45 would make sense in any phase and the masonry does not indicate to which they originally belonged. The water source was from the *piano nobile* level, as demonstrated by Fabbrini.¹⁸⁰ The water for the cascade came via pipes now lost, through holes cut in the walls of Rooms 46 and 70.¹⁸¹

The pre-Neronian setting for these rooms is fairly simple. The Type D walls originally continued into the area of Room 45, as did Room 69 (Figs. 6 and 29). Both were trimmed away to give Severus and Celer a free hand to design whatever they wanted, but they also left the shallow angle between the west end of Room 66 and the diagonal Type D wall that crosses the space of Room 43 (Fig. 6). It is unclear how much pre-Neronian architecture in this area already belonged to Nero during phase 1, but there are only two possibilities in the area of Rooms 43,

45 and 51; either Nero did not own the rooms to the east and therefore the Domus Transitoria project could not extend any farther, or, perhaps more likely, the design potential of the Type C project had already dawned on Severus and Celer, who would have wanted to keep much of the pre-Neronian architecture intact because they knew they had good use for it. In either case, the Domus Transitoria had to be nestled into the space available, necessarily retaining Room 66 and therefore retaining the diagonal wall of the Type D project that most closely mirrored Room 66. The shallow angle between them was not problematic because a symmetrical design could be centered at the apex, with reasonably similar views through the windows on either side.

Room 46

Room 46 is a spandrel between the pre-Neronian Type D project and the Neronian Nymphaeum Suite. Its masonry is exactly what one would expect here. Type D forms the oblique east and south sides, which bond with each other. Neronian phase 1 Type E forms the west side and the tiny north end, which also bond with each other, but abut the Type D. The Type D was razed to clear the way for Nero's Nymphaeum Suite, a chronology confirmed by Room 46's masonry.¹⁸² Room 46 was an aesthetic appendage to Room 45. The east end of Room 45 had to have a doorway to Room 69 to provide access to the eastern parts of the building, and this doorway had to be well south of the center of the wall. Rather than have just one off-center doorway in the east end of Room 45, a symmetrical pair was created by leaving Room 46 as a little space into which the extra doorway could open (Figs. 29, 42 and 52).¹⁸³ The resulting configuration matches the contemporary motif in the phase 1 West Suite (Fig. 29), Rooms 23–27, 30–31 and 33–37), obviously a design Severus and Celer favored at the time.

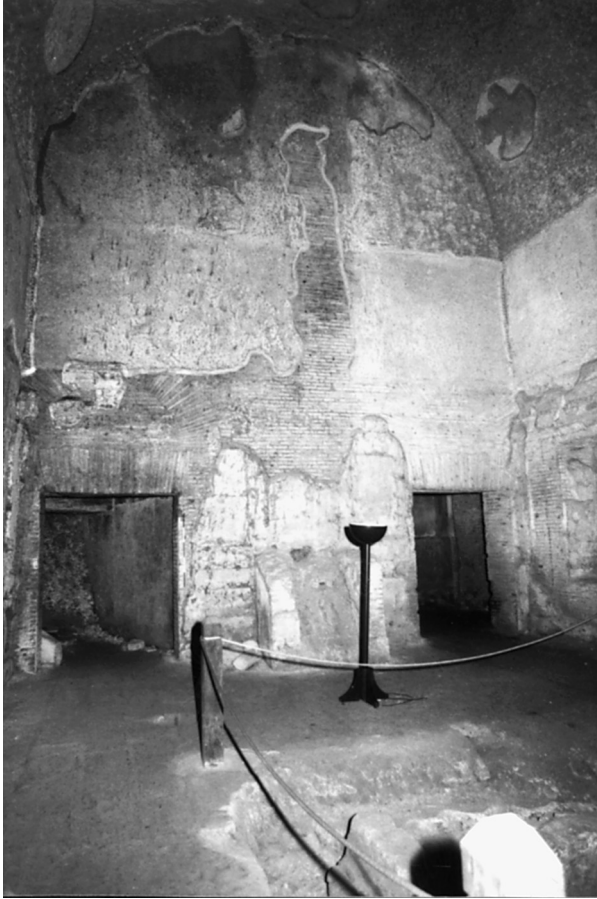
Although the masonry of Room 46 is unexceptional, the decoration provides valuable evidence. The frescoes on the Type D walls are a pleasant, largely white-ground fourth style unlike any Neronian scheme.¹⁸⁴ The same scheme also appears in Room 70, where it is better preserved. It is an early kind of the fourth style, with considerable flat areas of solid color and small decorative motifs like third style. The unique style of this decoration and the fact that it appears only on the Type D walls in Rooms 46 and 70 would be enough to assign these frescoes to the pre-Neronian period, but in fact Room 46 provides much clearer evidence. As originally built in the Type D project, the east side of Room 46 continued to the northwest, completely spanning the area of Room 43. The original decoration on this wall spanned well to the north of Room 46 itself, so the fresco visible in Room 46 is

just the south end fragment of the greater scheme. Not surprisingly, therefore, the perspectival center is not centered in Room 46, making the part visible in Room 46 lopsided. More important, the frescoed surface continues beyond the northeast corner of Room 46. That is, the Neronian masonry of the north end of Room 46 abuts these frescoes, not even touching the Type D masonry itself. Both the Type D east side and its decoration therefore predate the Neronian Nymphaeum Suite. The asymmetrical appearance of the earlier frescoes when viewed from Room 45 was obviously not considered problematic in the Neronian period. Most likely the door was kept shut anyway, making any particular decorative effort in Room 46 a waste of time. Similarly, the Neronian masonry of Room 46's north and west sides was invisible from Room 45 and was therefore never decorated at all.

Below the fourth style frescoes there is also a yellow-ground fresco dado. This dado was a thicker layer than the frescoes above, added later and overlapping it from below. The dado is probably Neronian, because the Neronian masonry does abut the Type D at dado level, with the dado frescoes apparently overlapping the Neronian masonry (it is poorly preserved). The decoration on the dado matches the off-center perspective of the earlier fourth style above it. The decoration on the dado is crude and simple, much inferior to the main scheme from the Type D project on the wall above it, but also in keeping with the simple motifs found in Neronian service corridor decoration. Because this wall could occasionally be glimpsed from Room 45, however, it apparently had to be fancier than the service corridor standard, which probably accounts for the richer yellow-ground color scheme. Yellow-ground dados like this recur in corridors that Nero used, including Corridor 50 and Staircase 38.

Room 45

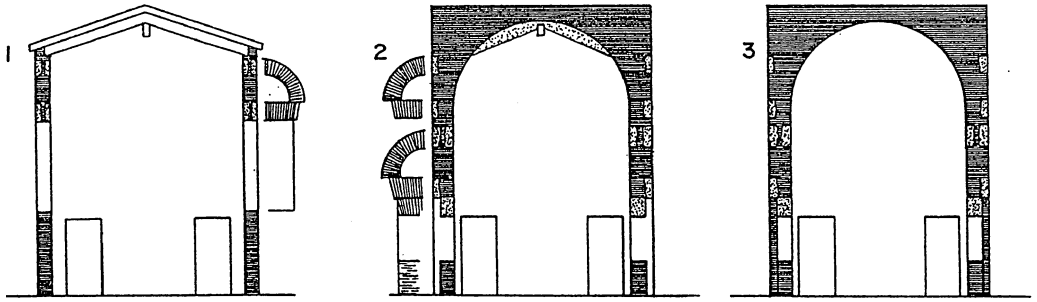
Room 45 is more challenging. In plan it is of a squat sideways "T" shape (Fig. 42), with Room 45A forming the cross bar running north-south across the full width of Room 44's east end.¹⁸⁵ Room 45 is a thirty-foot square (ca. 8.5 m) with an east-west barrel vault. Zander's measurements and reconstruction drawings are generally accurate,¹⁸⁶ but he did not know of Staircase 38, therefore taking no account of the *piano nobile* above. The barrel vault he reconstructs over Room 45A is therefore improbable, both because it would have interfered with the *piano nobile* and because Room 44 depended on 45A for light. Room 45A was more likely hypaethral, as reconstructed in Figure 5. The walls of Room 45A continue above the barrel vaults of Rooms 44 and 45, articulated at the top by a simple brick cornice, which appears to confirm its hypaethral nature. Unfortunately, the



52. Room 45: Overview to the east. The doorway at the left opens to Room 46.

modern ceiling of Room 45A is well below the original roof level of the West Block, cutting across the vault of Room 44. The brick cornice in Room 45A is therefore not at the very top, and its implications are not perfectly clear.

The masonry in Room 45 is problematic both because it is heavily obscured by well-preserved decoration and because the exposed samples are too small to allow the type to be identified securely. The unambiguous Type L of the wall between Rooms 44 and 45A is the only exception, but its chronology is already known from Room 44. The side walls are divided by windows into four piers each, whose small masonry samples are not consistent from one to the next. All have facing bricks typical of both Type E and Type F, with the north piers generally closest to Type F and the south piers closer to Type E. The northeast corner bonds,

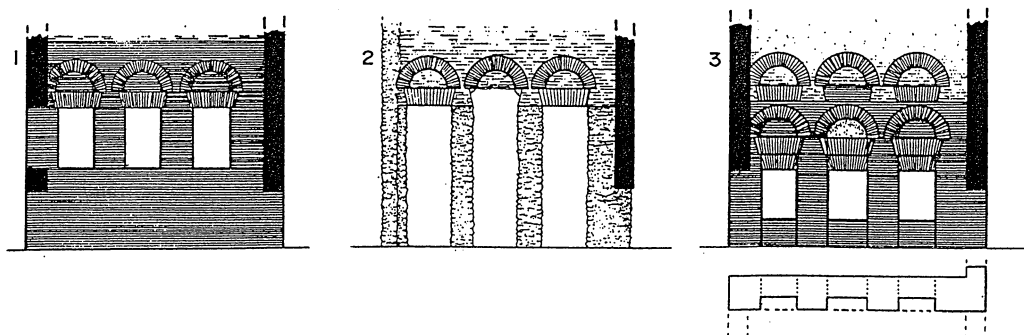


53. Room 45: North-south sections showing the three phases. 1) Neronian phase 1, with thinner side walls, high skylight windows and a pitched roof (but no flat ceiling). The sills are set at the lintel level of the surrounding doors, conjecturally, but in keeping with typical Neronian window proportions. 2) Neronian phase 2, with side walls thickened to support the new barrel vault, windows moved lower in the wall to accommodate the springing level of the vault (cf. Fig. 54) and extra patches of frescoes inserted at the top to fill in the portions of the wall that had not been visible when the pitched roof was in place but were exposed by the curved configuration of the vault (stippled). 3) Final phase (Othonian, very late Neronian, or both): the side windows are filled in to become (revetted) sculpture niches.

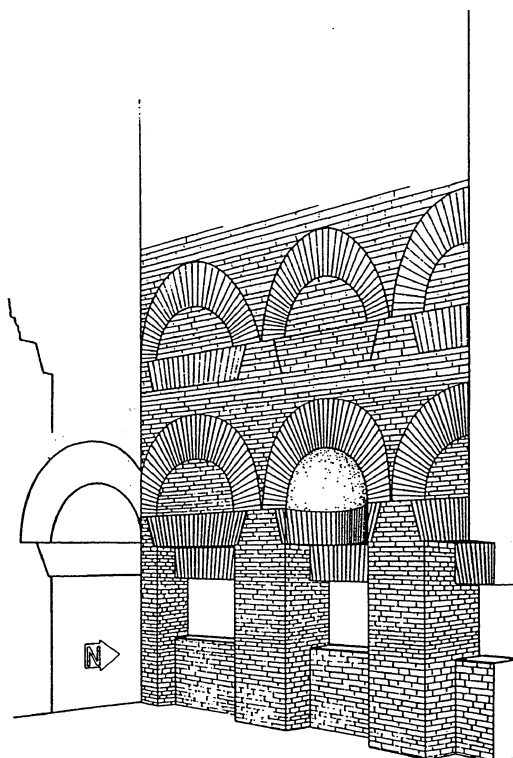
but the southeast corner is obscured by plaster. Because the masonry of this pier is contiguous in the northeast corner of Room 51, however, it is likely that the whole pier is integral.

The phases of Room 45 explain this anomalous masonry (Figs. 53–55 illustrate this argument). The first phase had a pitched roof (Figs. 53.1 and 54.1), which was replaced by a barrel vault in the second phase (Figs. 53.2, 54.2 and 54.3). The first phase had skylight windows high in the side walls, but these had to be moved lower when the vault was added to put them below the springing level of the vault. The most important evidence for the two phases is at the north end of Room 51, its party wall with Room 45. The south side retains flat and half round relieving arches from both sets of windows (Figs. 54.3 and 55). During the modifications the facing below the upper windows was removed, the window apertures cut down to ground level (Fig. 54.2) and the whole wall rebuilt with lower window lintels and relieving arches (Figs. 53.3, 54.3 and 55).

The ground level masonry of Room 45 is therefore reworked and refaced, over concrete cores from the Type E project. Type E bricks that remained serviceable were reused, augmented by new Type F bricks. The individual piers between the windows were built as separate projects from each other, whether simultaneously by different masons or in sequence by one gang, which explains the inconsistent masonry, a blend of Types E and F (Fig. 30 is highlighted to indicate this complication, whereas Fig. 42 shows Room 45 as purely Type E because that is in



54. Room 45: Elevations of the south side, viewed from Room 51, showing the two Neronian phases and the construction step between them (to scale with the plan at the bottom of step 3). 1) Neronian phase 1 Type E (with windows of typical Neronian proportions). 2) To move the windows lower in the walls without razing Room 45 completely, the facing is removed all around the wall and window frames below lintel level. The flat arch of the center window falls or is removed at this stage. The wall fabric below the sills was not load bearing, so apertures could be cut all the way down to ground level. 3) To rebuild in Neronian phase 2, the walls are thickened with core concrete and refaced all around, with the new windows set at the desired lower level. By removing the phase 1 facing, the phase 2 architects gave themselves a place to insert a new set of relieving arches below. The space left when the upper central flat arch fell away is filled with normal phase 2 facing, there being no reason to reconstruct the original arch.



55. Room 45: Perspective drawing of the windows and relieving arches in the south side as they stood in Neronian phase 2, viewed from Room 51. The doorway in outline to the left is d45A.51 (labeled on Fig. 62), of Neronian phase 2 date, whereas the seam in the masonry above it is the only remnant of the Neronian phase 1 window above (F45A.51 on Fig. 61), with relieving arches at the same height as Room 45's phase 1 windows.

fact the fabric type that defined the basic perimeter of Room 45 regardless of later modifications). The masonry of the east end wall cannot be reliably identified either, other than the fact that it is typical Neronian *III Periodo* technique, intermediate in density between Types E and F. It could have been refaced along with the piers on either side, but the top of the wall is all Type E, retaining decoration remnants from both Neronian phases.

Inside Room 45 the most important phase 1 remnants are at the crown of the lunette, including the socket for the original ridgepole at the top center (Figs. 53.1 and 56). The rest of the evidence for the phase 1 pitched roof is preserved in the decoration. The lunette was decorated in frescoes in phase 1. The masonry continued above the level of the pitched roof to the prevailing roof level of the rest of the West Block, but the frescoes continued up only to the ceiling, the undersurface of the pitched roof (Fig. 53.1). The top edge of the original frescoes therefore preserves the diagonal line of the pitched roof. This top edge is not easy to see because two additional campaigns of decoration were applied on top of it, but it can be made out, especially as it descends across the lunette to the north (left) of the ridge pole socket (Figs. 53.2 and 56). The phase 1 frescoes are the dark patch to the north (left) of the ridge pole socket. Their top edge, the line of the pitched roof, is just detectable at the top of the dark patch, differing from the slightly lighter phase 2 frescoes added above them. The south side of the lunette is more heavily covered in later decoration, so the phase 1 design is detectable there only in small patches difficult to see in Figure 56.

Phase 2 was the addition of a vault in Room 45 (Figs. 53.2, 54.2 and 54.3). This was undoubtedly Neronian phase 2, contemporary with the vault in Room 44, presumably for the same reasons, aggrandizement and fireproofing.¹⁸⁷ The colonnade between Rooms 44 and 45 was retained in Neronian phase 2, so the spatial relationship between the rooms was not changed fundamentally.

The decoration appears not to have changed significantly in phase 2. The evidence is again in the lunette of the east end wall, at the very top, above the phase 1 frescoes. The lunette defined by the new barrel vault arched above the diagonal top edge of the phase 1 frescoes, leaving a lens of blank, undecorated wall space (the newly exposed wall surface is stippled in Fig. 54.2). The phase 2 decoration did not replace the phase 1 decoration, but simply extended it to cover the newly exposed patches. In Figure 56 the phase 2 plaster is slightly lighter than the phase 1 plaster below it, making the diagonal line of the original pitched roof just visible between them. The surface of the fresco plaster was smoothly finished and the thickness of the plaster precisely matched the phase 1 decoration, but the painted design cannot be reconstructed.



56. Room 45: The lunette of the east end (detail of Fig. 52). At the top, the dark patch left of center is the only visible remnant of the original Neronian fresco decoration. The diagonal seam at the top of this decoration reveals the strike of the Neronian phase 1 pitched roof. The lighter plaster above that seam, running up to the intrados of the vault, is the fill-in decoration from when the Neronian phase 2 vault exposed this portion of the wall for the first time (the stippled area in Fig. 53.2). The grotto decoration scheme (all other decoration visible in this photo) was then applied on top of these two phases of frescoes.

The third phase of decoration in Room 45 is the grotto motif that remains today. The frescoes of phases 1 and 2 had dried completely by the time the grotto motif was added on top of them. The smooth surface of the frescoes did not give sufficient purchase for the mosaic bedding mortar, so the fresco plaster was pocked with a pick to roughen it. In Figure 56 the pock marks appear as tiny dark spots in the phase 2 plaster and as light spots visible only at the bottom of the phase 1 plaster.¹⁸⁸ The smoothly finished original surface and later pock marks on the phase 2 frescoes are crucial because they indicate the nature of the transition from phase 2 to phase 3; the phase 2 frescoes were applied and smoothly finished while wet, and then had dried by the time the phase 3 grotto scheme was mooted. The pock

marks were added accordingly. The phase 2 frescoes, therefore, cannot be bedding material for the phase 3 grotto scheme. By extension, it is the phase 2 frescoes, and not the phase 3 grotto scheme, that was the first decoration scheme after the vault was added. The vault and the grotto decoration are therefore unrelated design ideas; the vault was built according to its own rationale, redecorated in the scheme that had already been there, and then later the grotto motif was applied over that.

The two phases of frescoes also prove that the added vault in Room 45 was not a *pentimento* during construction. That is, Room 45 was both built and decorated in its phase 1 configuration before the phase 2 vault was added, so the vault represents a fundamental redesign after the original design was completely finished, including decoration. This is, of course, identical to the masonry chronology in the West Suite. As in the West Suite, this chronology proves that there were not numerous design changes during a single project. All phase 2 (or later) masonry anomalies in Room 45 not only postdate the completion of phase 1, but also postdate its decoration. The phase 1 decoration in Room 45 is therefore analogous to the West Court colonnade in that both intervene between masonry phases 1 and 2, separating the two masonry phases definitively.¹⁸⁹

The two fresco phases prove that when the vault was added the original decoration scheme did not change along with it. The phase 1 decoration remained in place and the phase 2 decoration merely filled it out to conform to the shape of the new vault. Probably the only change to Room 45 intended when the vault was added was the vault itself (and the changes to the side windows it necessitated, to be described presently), while the room continued to be used as it had originally been intended. If the original decoration corresponded to the original room use, it did not need to be changed.

The grotto scheme, then, represents a completely new conception of the Nymphaeum Suite, of either Neronian or Othonian date. If it is Neronian, the change would be a *pentimento* within the Domus Aurea project. It might have been made possible by the addition of the Octagon Suite, making Rooms 44 and 45 no longer the premier rooms of the Esquiline Wing. The former functions of Rooms 44 and 45 would be transferred to the Octagon Suite, freeing Rooms 44 and 45 for experimentation. Rooms 44 and 45 could be made into something daringly novel, without putting any important function at risk. On the other hand, if the advent of the grotto motif is Othonian, contemporary with the Type L masonry, it would indicate a new patron attempting to put his own stamp on the palace. The archaeological evidence rules out the grotto motif as the *raison d'être* for the vault, but the evidence cannot choose between a late Neronian and Othonian date for the grotto motif.

In Room 45 the masonry of phase 2 is easy to interpret, even if the facing is uninformative. I have already outlined the sequence of steps involved, to which only a few details need to be added. The side walls of Room 45 were probably thickened to support the new vault, but because they were refaced during the revisions, the new facing obscures any seam between the original core and the new layer. In their current form, however, the side walls are much thicker than they would have needed to be when Room 45 was trabeated in phase 1. Furthermore, there are two layers in the window lintels in the side walls, with separate relieving arches at different levels (Figs. 54.3 and 55). On the north side, facing into Room 45 itself, the lintels are some two feet lower than on the south side of the wall, facing into Room 51. Apparently, therefore, in phase 2 the side walls were thickened to support the vault by adding a layer to the inner surfaces. It is this inner layer that includes the inner parts of the phase 2 windows, including their lower lintels. I have drawn Figures 29 and 53.1 accordingly, with walls of conventional thickness, placing their outer surfaces where the current outer wall surfaces are. In this configuration, they also register on the outermost columns in the colonnade between Rooms 44 and 45. The walls are then thickened toward the interior in Figures 30 and 53.2 to arrive at their current configuration.

The low springing level of the phase 2 vault meant that the phase 1 windows could not be retained. The springing level of a vault is determined by its span, so the springing level had to be well below the phase 1 window lintels.¹⁹⁰ The phase 1 wall below the relieving arches was therefore stripped of its facing and the core masonry cut down so that the apertures extended much lower in the wall (Fig. 54.2). The cores were (most likely) thickened, to support the greater weight of the vault, and refaced. The new facing included all surfaces of the walls and the three new windows. The new windows were also topped with their own flat and half-round relieving arches in broken *bipedales*. These do not span the complete thickness of the wall so they, too, are a form of facing (Fig. 53.2). The rest of the wall above the arches was also filled in and refaced, up to the undersides of the phase 1 relieving arches.¹⁹¹ There is therefore no trace of the original apertures below the phase 1 relieving arches. The phase 1 relieving arches and the wall surface beside and above them are intact, however, proving that the square northeast corner of Room 51 is original to the Neronian phase 1 project.¹⁹²

The phase 2 side windows in Room 45 were conventional, similar in location to the side windows of many banquet halls and even *tablina*, to which Room 45 was analogous. *Comparanda* abound, for example, the *tablinum* in the House of the Faun in Pompeii, the banquet halls of the Domus Flavia and the house of Fabius Rufus in Pompeii. It is noteworthy, however, that the height of windows (either

sill or lintel) is not consistent in all examples. Windows in the sides were normal, but they could be either at eye level to provide a horizontal view or higher up for skylight. So, in Room 45 both the phase 1 and the phase 2 window configurations were preceded in contemporary domestic architecture.

The change in window level does raise one fascinating issue. As originally designed in phase 1, the high windows in Room 45 were only skylights; they did not provide a direct line of sight into Rooms 43 and 51. Accordingly, in phase 1 Rooms 43 and 51 did not need to be of regular shape or decorated for viewing from Room 45; they were not intended to be seen. It was only after the windows were brought down to eye level in phase 2 that the appearance of Rooms 43 and 51 mattered. Room 51 has its own complex sequence of phases and, as we shall see, it was only during Neronian phase 2 that an attempt to improve the appearance of Room 51 is evident. The apse at the south of Room 51 is the clearest example. Before that, Room 51 was awkwardly irregular and its inconsistently sized and positioned windows were designed according to the lighting needs of adjacent rooms.

Room 45A stands now in its final, Othonian form, when it was hypaethral for the benefit of Room 44. It was probably also hypaethral in Neronian phase 2, however, when Room 45 was darkened by its lowered (and possibly shrunken) windows. If Room 45A was not hypaethral already, the value of making it so would have become apparent then. The need for light in Neronian phase 2 would not have been desperate, however. Even though the side windows were lower and probably smaller, there were still six of them occupying about half of the span of each side wall. Only when the phase 2 windows were filled, making them into statue niches, did Room 45 become dark enough to make a hypaethral Room 45A necessary, as opposed to merely convenient. Filling the windows was probably part of the grotto decoration scheme, where darkness was appropriate (Fig. 57).

The final phase in Room 45 is the magnificent grotto decoration. Many of the features described here do not touch and therefore cannot be proved to be contemporary, but their chronological *termini* are clear enough. The grotto motif postdates Neronian phase 2 and predates the Flavian spoliation. Because none of the grotto decoration motifs actually touches the Type L wall between Rooms 44 and 45, it cannot be proven that the scheme in Room 45 is contemporary with the Othonian decoration in Room 44, but because of the aesthetic consistency between the two, an Othonian date for the grotto motif in Room 45 is the best likelihood. If that presumption is incorrect, the difference in date is a matter of months, from the end of the Neronian period to the accession of Vespasian in



57. Room 45: Elevation photo of the north side.

A.D. 69. So even though it is not absolutely certain which emperor deserves credit for originating the grotto scheme, it is nevertheless quite tightly dated. The description that follows is illustrated by Figures 52, 56 and 57.

In its final phase Room 45 was spectacular. The floor was paved in stone slabs whose imprints remain in the bedding mortar on the north side. There was a fountain in the center of the room with a U-shaped feature in concrete, undoubtedly intended both for waterworks of some sort and to support a statue or basin now lost (Figs. 42 and 52), plus the cascade at the east. These waterworks could date originally to any phase of the room, remaining to the end in any case.

The side walls had the usual projecting revetment socle, bits of which are still in situ on the north side, and then revetment on all walls to about 70 cm above the windows, perhaps reflecting the original level of the colonnade between Rooms 44 and 45. In the final phase the side windows and two doorways in Room 45A were filled in to convert them into niches, presumably for statues. The niches were reveted contiguously with the walls.

Above the revetment was a register in mosaic that reached up to the springing line of the vault and also continued around the ends of Room 45A. The few remaining tesserae, at the north end of Room 45A, are dark, suggesting a similar program to the mosaics in Room 44.

Above the mosaics in Room 45 proper was the famous artificial grotto motif covering the entire vault and most of the lunette,¹⁹³ including the distinctive fake stalactites executed in pumice pieces set in mortar. The edges of the grotto motif were articulated by seashells inserted into the plaster, matching the lunettes of Room 44. There were framed panels with figural mosaics. The central medallion is Odysseus offering wine to Polyphemus, an entirely appropriate theme in a grotto. The other medallions are illegible. The east end lunette appears to have had a rectangular mosaic panel, although its borders cannot be reconstructed with complete confidence.¹⁹⁴

Lavagne¹⁹⁵ suggests that the artificial grotto in the Nymphaeum Suite is remarkable because it represents a *morceau de nature* incorporated inside a building, rather than a “solution de continuité qui permet de passer progressivement de la nature à l’habitation construite”. Previous to the Esquiline Wing, artificial grottos were exterior features, usually as the focal point at the end of a terrace, colonnade (“galerie”), etc., but not inside a building. The Esquiline Wing appears to be the first instance of a grotto motif as interior decoration. Nero was famous for innovation in so many other ways, it is not surprising that the interior use of the grotto motif constitutes yet another, but then again, the masonry chronology of the Esquiline Wing may account for this change, as it did for the vault haunch clerestory. That is, Rooms 44 and 45 were originally the core of a villa design. The simple, axial relationship between the atrium and the peristyle of a Roman villa is similar to the pre-Neronian relationship between an artificial grotto and the open space before it. So, when Rooms 44 and 45 had to be converted to a fireproof, nontrabeated design, the fact that Room 44 was already on axis with the West Court (20) may well have contributed to the decision to make a grotto out of it (perhaps also encouraged by the fact that the Type F vault had to be set low in Room 44, in a somewhat squat design, more in keeping with a grotto than a grand hall). On the other hand, because Rooms 44 and 45 had been the core of the former villa design, they could not be made into a purely exterior feature. Making a grotto out of the Nymphaeum Suite, therefore, necessarily imported the grotto motif into the interior of the building. The grotto was not intended when the Nymphaeum Suite was laid out in phase 1, but resulted from the phase 2 changes in the wake of the great fire. After Nero, then, the grotto became an acceptable interior decorative motif. As was the case with the vault haunch clerestory, the masonry chronology of the Esquiline Wing seems to have provided some impetus for stylistic progress for the artificial grotto motif, without anyone originally intending that to be the case.

Room 51

In Neronian phase 1 Rooms 43 and 51 were light wells for the high skylights of Room 45, also providing light for the adjacent corridors, Rooms 42, 45A, 50 and 69.¹⁹⁶ Rooms 43 and 51 had no other significant design needs because they were largely invisible at eye level, at least as viewed from the rooms occupied by Nero himself. The fact that they were irregularly shaped spandrels therefore did not matter. It was only in Neronian phase 2, when these rooms became visible from Room 45, that they needed to look good themselves. The irregular shape of Rooms 43 and 51 resulted from the fact that the Neronian Nymphaeum Suite was nestled into pre-Neronian buildings of irregular shape, leaving spandrels between. The spandrels are Rooms 43, 46, 51, 52, 69 and 71, as Figure 29 shows. In their original design Nero's architects did not attempt to make anything attractive out of these spandrels, which would have been laborious, but instead simply sequestered them from the important rooms. The only interaction Nero had with any of these rooms was the fact that he would walk quickly through Room 69 and 71. The irregular shape of Rooms 43 and 51 in Neronian phase 1 does not represent crude design, but quite the opposite. Irregularity was inevitable here; using these rooms only as lightwells was therefore an attractive solution, in addition to which it freed the architects to design the important rooms (44 and 45) any way they wanted without concern for the visual impact on the largely invisible spandrels.

Room 51 was heavily revised in Neronian phase 2, when an attempt was made to convert it into a fine vista for Room 45.¹⁹⁷ This required regularization of the irregular east side of Room 51, for which no provision had been made in the first Neronian design. It was a difficult and risky project to execute, leaving the fabric of Room 66's alcove dangerously thin and requiring specialized Type G masonry to form the complex shapes. The west side of Room 51 was revised for different reasons. It was a simple, straight wall in both Neronian phases, but in phase 1 its doors and windows were entirely subordinate to the needs of the south Nymphaeum Suite, with several windows and doorways. These were of irregular arrangement, but that fact could not be detected from Room 45. When Room 51 became visible from Room 45, however, the west side had to be revised, both to cover its irregularities and to make it compatible with the apse that was added at the south end. The west side therefore has complex masonry too, but the complexities do not involve pre-Neronian material.

As a result, the masonry of Room 51 is exquisitely complicated, but the complications are crucial for making sense of the Esquiline Wing overall and must be



58. Room 51: East side, north half. L–R: south side of Room 45; Type E masonry with the doorway to Room 69; scar where Room 69 was trimmed off to make way for Room 51; patch of Type G masonry (Neronian phase 2), with the meter on it and the Type J cross wall in front of it; Type X facing (right edge of photo, just left of the ladder) showing from behind the Type G applied on top of it.

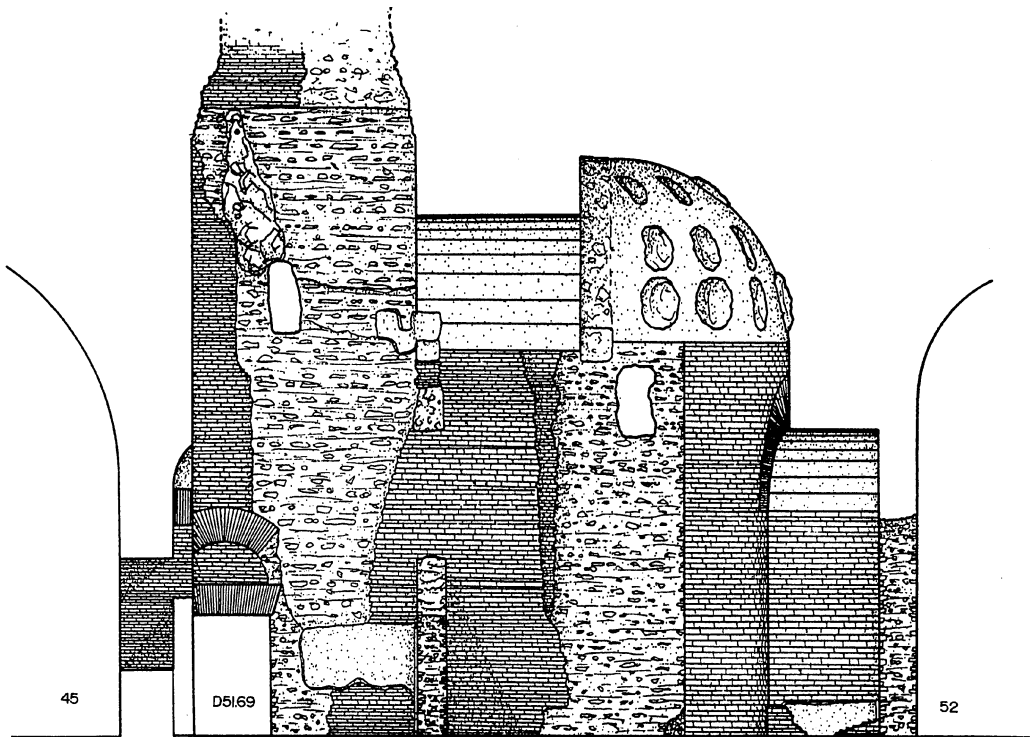
studied in detail. The overall chronology mirrors the whole Esquiline Wing in four main phases: 1) pre-Neronian remnants to the east; 2) Neronian phase 1, as a light well for Room 45; 3) Neronian phase 2 as both a light well and a vista for Room 45; and 4) later revisions of less certain date, most likely Othonian. These four steps provide a chronological armature to which all masonry evidence can be applied, making consistent sense throughout the room. The only undatable elements are the features in the center of the room, such as the fountains, that do not abut the masonry of the side walls.¹⁹⁸



59. Room 51: East side, south half. L-R: Type J cross wall (with ladder above it) abutting the Neronian phase 2 Type G facing; Type G patch itself (meter at the right edge); Type X facing showing from behind the Type G (just right of the meter); wide patch of exposed Type X core concrete (with large hole high up) where Room 66 was trimmed off to make way for Neronian phase 2; Type G facing in the apse (right edge of the photo).

THE PRE-NERONIAN REMNANTS IN ROOM 51. Room 51 *per se* did not exist when the first two masonry types were constructed. These were the Type X phase and the slightly later Room 69 (Chapter 3.1), later to be incorporated into the Neronian Pentagonal Court. Naturally, these first two steps appear on the east side of the room (Figs. 58–60), in the form of scars where the earlier masonry was trimmed off in the Neronian phases.

The earliest material comes from Room 66, whose alcove projected into the area of Room 51. The original design of Room 66 appears in Figure 29, intruding

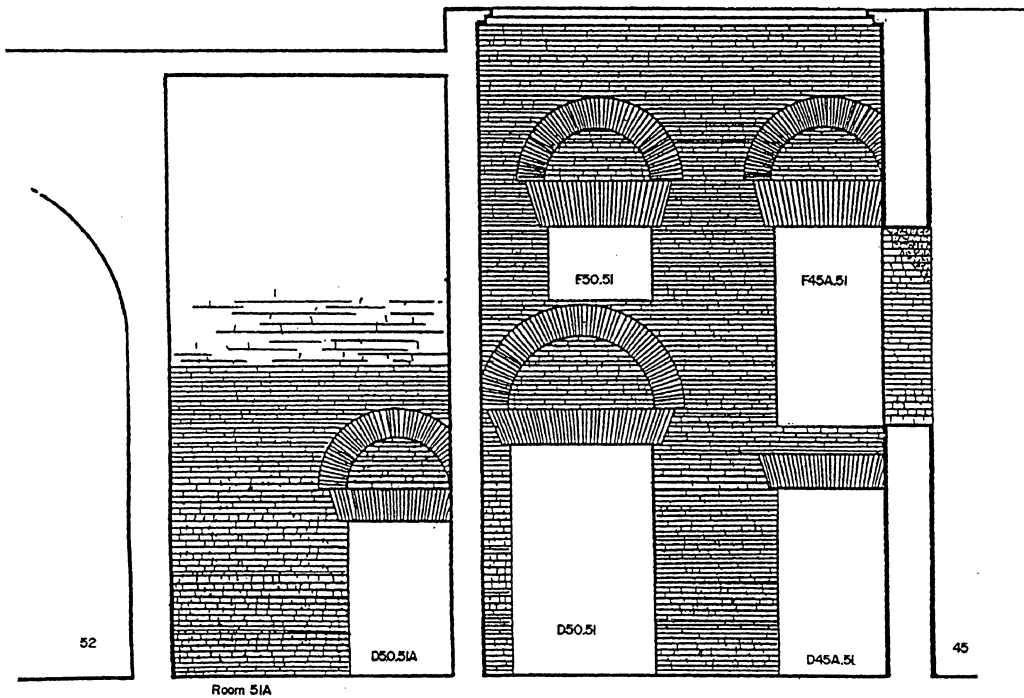


60. Room 51: Schematic elevation of the east side (cf. Figs. 58 and 59).

diagonally into the space of Room 51. This configuration was retained in Neronian phase 1, but was trimmed off in Neronian phase 2 to make a straight east side for Room 51 (Figs. 30 and 42). This left the scar that appears in the center of the wall (Figs. 58–60).

As noted in Chapter 3.1, Room 69 was a slightly later pre-Neronian revision in the Type D and Type X complexes, which, again, projected into the area that would later be occupied by the Neronian Room 51. Unlike Room 66, however, Room 69 did interfere with the Neronian phase 1 design, so it had to be trimmed off to make way for Room 45. Figures 58 and 60 show the resulting scar, which also cut Room 69's vault. The doorway between Rooms 51 and 69 is integral to the Neronian design, with just enough Neronian facing set into the scar to form its south jamb and relieving arches. The scar from Room 69 was the only part of Room 51's east side that was perpendicular to the north end in Neronian phase 1.

The fact that Room 69 was trimmed in Neronian phase 1, and not left until Neronian phase 2, is demonstrated by the north end of Room 51 (Fig. 55). Had Room 69 been left intact, it would have interfered with Room 45's high



61. Room 51: Schematic elevation of the west side ($W_{51.W}$) reconstructing Neronian phase 1. The levels of the window sills are conjectural, depending on whether the original doors below them had half-round relieving arches in addition to the flat arches they are known to have had.

windows in Neronian phase 1, intersecting the easternmost window in the middle of its relieving arches. This it clearly did not do because the arches are intact, so Room 69 was trimmed away before Room 45 was built in Neronian phase 1.

ROOM 51 IN NERONIAN PHASE 1. It is not clear what had stood in the area of Room 51 before Neronian phase 1 swept away all pre-Neronian remains. Neronian phase 1 is therefore the next identifiable phase in Room 51. It is a substantial component, with remnants on all four sides of the room, despite heavy revision in Neronian phase 2. The plan reconstructed in Figure 29 is somewhat conjectural, especially in the area labeled Room 51A. The Neronian phase 2 apse replaced Room 51A completely (compare Figs. 29 and 30), leaving only enough evidence to construct the original location of the cross wall between Rooms 51 and 51A, as well as the doorway to the south of it (labeled D50.51A in Fig. 61).¹⁹⁹ No other details of the interior of Room 51A are known. My phase 1 plan (Fig. 29) is therefore not a reconstruction of Room 51A, but merely the space left between

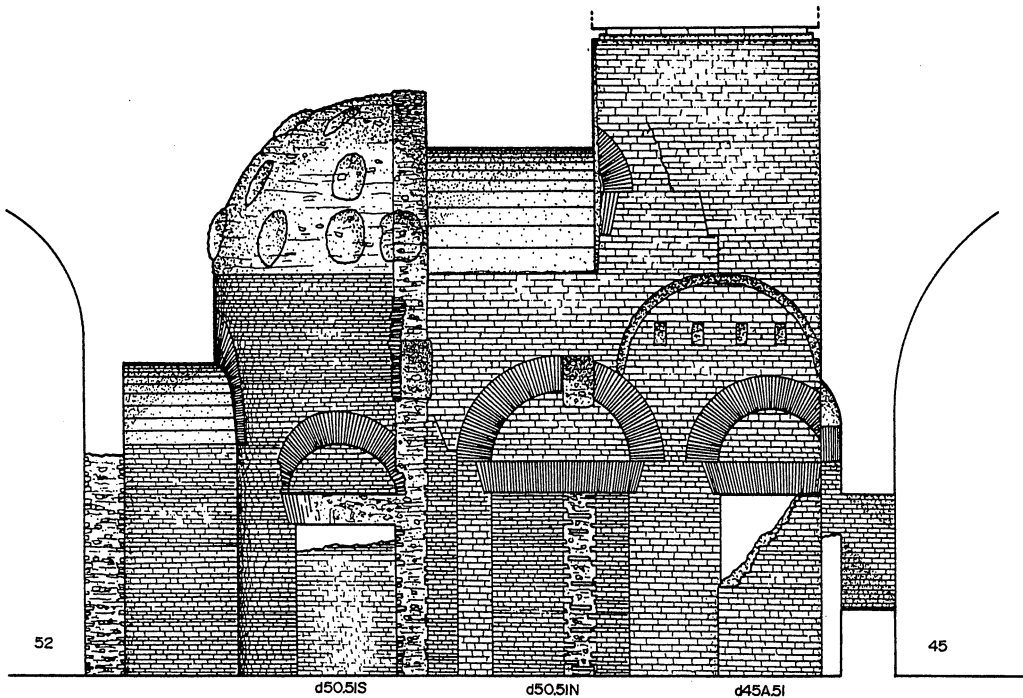
everything else when the cross wall between Rooms 51 and 51A is restored. It is also unclear how Room 51A was covered, if at all. Figure 61 makes no attempt to reconstruct the top of the room, other than to put a roof at the proper level for the Esquiline Wing.

Most of the rest of the phase 1 perimeter of Room 51 can be reconstructed in much greater detail. In Room 51 itself, the Neronian phase 1 features are:

1) The cross wall between Rooms 51 and 51A, hereafter called simply “the cross wall”. In Figure 61 the cross wall is the one cut by the section, between D50.51A and D50.51. The cross wall bonded with the phase 1 masonry on the west side, but not with the pre-Neronian Room 66 on the east. The only standing remnant of this wall is the north jamb of D50.51A (Fig. 61, which is now d50.51S as labeled in Fig. 62). The remnant of the cross wall appears in Figures 62 and 63, including the scar left when the wall was razed in Neronian phase 2. The phase 2 apse and conch were built up to the south side of the wall, imbedding the phase 1 doorway at the west edge. The opening of the apse was cut through the cross wall, so the entire outer (top) perimeter of the conch consists of the scar from the cut wall (Figs. 60, 62 and 67). On the east side of the conch the masonry of the cross wall descends onto the top of the masonry of Room 66, but does not bond with it (Fig. 60). The scar also forms the north jamb of d50.51S (Fig. 62; cf. D50.51A in Fig. 61). Whether the cross wall had doors or windows between Rooms 51 and 51A cannot be determined, so I have made no attempt to reconstruct them in Figures 29 and 61.

2) On the west side of Room 51 there was a phase 1 doorway just north of the cross wall whose south jamb bonded with the cross wall, labeled D50.51 in Figure 61. This doorway was filled in and replaced by a smaller doorway in Neronian phase 2 (Fig. 62, labeled d50.51N), but the south jamb of the original doorway remained in place, appearing in Figure 62 to the right of the scar where the cross wall was cut out (cf. Fig. 65), but not forming the jamb of the Neronian phase 2 doorway. The phase 1 doorway was about half a meter taller than the phase 2 doorway that replaced it. At the top of the jamb spur the original springing surface for the flat arch lintel remains, visible as a clean diagonal seam in the masonry in Figures 62 and 65. That establishes the original height of D50.51, but its width in Figure 61 is reconstructed conjecturally, with typical Neronian proportions. Its flat arch and most of the wall to the north of the jamb were replaced in Neronian phase 2. This masonry includes the two existing doorways, d50.51.N and d45A.51 (Fig. 62), which are integral to Neronian phase 2.

3) The Phase 1 doorway immediately to the south of the cross wall is D50.51A as labeled in Figure 61 (in Fig. 62 d50.51S is the same doorway, heavily modified



62. Room 51: Schematic elevation of the west side (cf. Figs. 63 and 64).

in Neronian phase 2). As originally constructed, D50.51A was a straightforward design, in a straight north-south wall (Fig. 29) and with typical relieving arches (Fig. 61). In phase 2, however, the doorway was incorporated into the new apse, requiring that the top of the doorway be cut away to conform to the new curved surface. Much of the original facing of the relieving arches was therefore cut away, exposing core concrete in the lintel. A crude new half-round relieving arch was inserted into the concrete above the doorway (Figs. 62 and 63).

4) The top of the west side of Room 51, high above d50.51N and d45A.51 (Fig. 62), retains elements of two Neronian phase 1 skylights, part of the same design scheme as the high phase 1 skylights in the south side of Room 45. The phase 1 north corner of Room 51 is only preserved high in the walls, so it is impossible to tell if they bonded or not, but the design similarity between the skylights on the north and west sides seems to indicate that these walls were all built as an integral unit, along with a bit at the north end of the east side (Fig. 60). The southern window is F50.51 in Figure 61. This was later displaced by the barrel vault that spans the middle of Room 51 (top center in Figs. 60 and 62, discussed later as phase 2b), leaving small remnants of its relieving arches (Fig. 62 and 66, left). The northern window (F45A.51 in Fig. 61) registered directly above D45A.51, and



63. Room 51: West side, south half. L-R: alcove in the apse (left edge of photo, Neronian phase 2 Type G); west half of the apse (Type G), with d50.51S (Fig. 62); scar from Neronian phase 1 cross wall forming the right (north) jamb of d50.51S and most of its flat arch lintel; Remnant of the Neronian phase 1 wall to the right (north) of the scar (more clearly visible in Figs. 62 and 65); Neronian phase 2 Type F wall fabric (with meter); fill in d50.51N (Fig. 62), including a prepared semibond scar; more Type F to the right edge of the photo

its lintel was at the same level as the original Neronian phase 1 windows high in the south side of Room 45 (in Fig. 61 Room 45's high phase 1 windows appear in the section at the right; in Fig. 55 the remnants of F45A.51 appear as a single line to the left of Room 45's arches; in Fig. 54, step 1, F45A.51 and D45A.51 appear in the section to the left). In Neronian phase 2 F45A.51 was completely suppressed along with the high phase 1 windows in Room 45, including removing its relieving arches entirely and building solid wall in their place. The only remnant of the phase 1 window, therefore, is the distinctive seam in the masonry formed by the seatings for the flat and half-round arches and part of the south side of the window below (Fig. 62, top right, and Fig. 66, right).

These high phase 1 windows in the west side of Room 51 are crucial because they are the only high windows from Neronian phase 1 that retain parts of the actual aperture below the flat arch lintel. In the south side of Room 45, in contrast, the walls below the phase 1 relieving arches were completely refaced in phase 2, obliterating any trace of the apertures. The west side of Room 51 proves that



64. Room 51: West side, north half. L-R: Neronian phase 1 masonry (sliver at left edge of photo); Neronian phase 2 Type F masonry, with meter; fill in d50.51N (Fig. 62), with prepared semibond scar; Type F masonry; d45A.51 (Fig. 62); Partially damaged masonry slab set inside Room 51, converting d45A.51 into a niche (when seen from Room 45A); south side of Room 45.

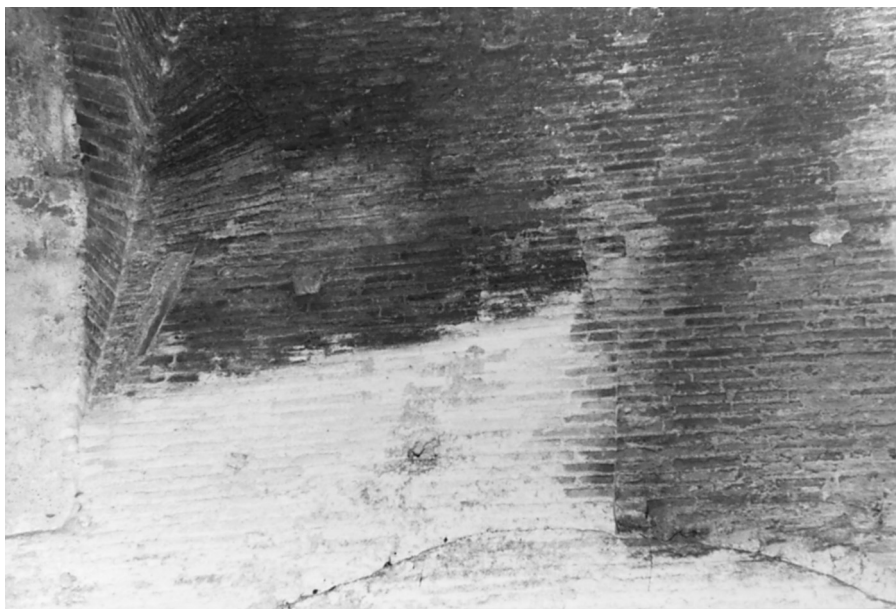
Neronian phase 1 did have windows under the upper relieving arches; parts of them are still there. How this relates to Room 45 and contemporary scholarship on the Esquiline Wing is discussed later.

As Figures 61 and 62 demonstrate, the evidence for Neronian phase 1 in the west side of Room 51 is good, sufficient to allow a nearly complete reconstruction of its elevation. The phase 1 remnants just described allow every feature in that drawing to be reconstructed with complete confidence, except for the sill level of the two upper level windows. There are two possibilities for the sill level; one



65. Room 51: Detail of the west edge of the apse (cf. Fig. 62, left of center). L–R: the opening of d50.51S (dark), with crude phase 2 tiles completing the original phase 1 half-round relieving arch; scar from the razed phase 1 cross wall, forming the right (north) jamb of d50.51S; phase 1 wall fabric bonding to the core concrete of the cross wall (at the top, the seam left when the flat arch lintel from the large phase 1 doorway was removed); phase 2 wall fabric, forming the left (south) jamb of d50.51N, from which the phase 2 flat and half-round relieving arches spring; late fill in d50.51N.

example of each I have reconstructed in Figure 61. If the sill was low, as I have reconstructed F45A.51, i.e., matching the sills of the phase 1 windows in the south side of Room 45, then there would not be enough room above the doorways below for half-round relieving arches, as D45A.51 has been reconstructed. If the sill of the upper window was higher, that is, if the upper window was simply a small skylight, then the door below it could have both flat and half-round relieving arches. D50.51 and F50.51 have been reconstructed in this configuration. The



66. Room 51: The remains of the Neronian phase 1 skylights on the west side (F50.51 and F45A.51 in Fig. 61). L–R: Neronian phase 2 barrel vault springing from the fill that replaced F50.51 (left edge of photo); remnants of F50.51's relieving arches; Neronian phase 1 wall fabric; Left (south) side of F45A.51 just right of the crest of the later arched cutting at the bottom (cf. Fig. 62); Neronian phase 2 fill in F45A.51.

two pairs of doors and windows did not need to match each other because they were aesthetically different from each other. The D45A.51 was the quasi-*andron* doorway in the *atrium*-like design of Rooms 44 and 45, and therefore part of the design of these important rooms. D45A.51 and F45A.51 would undoubtedly have harmonized with the design of Room 45, as they appear in the drawing. They were also pendant (and identical in design) to a phase 1 door and window at the north end of Room 45A, which originally opened into Room 43 (Fig. 29). The location of these doors and windows, which are nestled rather awkwardly into the corners of Rooms 43 and 51, is explained by the fact that they needed to be centered in their wall segments inside Room 45A (Fig. 42). The aesthetics of Room 45A were obviously more important than the aesthetics of the adjacent light wells. D50.51 and F50.51, in contrast, served Corridor 50, which was a service corridor occupied by Nero only fleetingly, if ever. Its doors and windows did not need to conform to the design of Room 45 and may have been different, according to the needs of lighting for Corridor 50 and the transverse files of doorways in the south Nymphaeum Suite.

5) The evidence for Neronian phase 1 in the wall between Rooms 45 and 51 (north end of 51) has already been described in the discussion of Room 45. This includes the two phases of relieving arches, which parallel the west side of Room 51 in chronology and significance. No doubt the changes in Room 45 were the driving force for the changes in Room 51. At the north end of the east side of Room 51 (Fig. 60), the tiny bit of phase 1 masonry surrounding the doorway to Room 69 (D51.69) bonds with and is indistinguishable from the phase 1 masonry of the north end. The doorway was refaced at the same time as the lower parts of the north end wall in Neronian phase 2.

The evidence for Neronian phase 1 in Room 51 is crucial for the overall masonry chronology of the Esquiline Wing, identical to and confirming the two-phased Neronian chronology in the rest of the West Block. The phase 1 elevation of the west side can be reconstructed to its full height and the scar from the phase 1 cross wall can be traced all the way across the crown of the abutting phase 2 conch, which proves that Neronian phase 1 was entirely completed, up to the roof level of the Esquiline Wing, before the Neronian phase 2 modifications were added. Once again, the Neronian phase 2 modifications cannot be *pentimenti* executed as part of one Neronian project; there were two Neronian projects that do not overlap. I emphasize this point in response to Meyboom and Moorman, Lancaster and Griffin,²⁰⁰ who have suggested that the design of the Esquiline Wing changed, piecemeal, as the construction progressed. In Room 51, as throughout the West Block, this is clearly not true. Piecemeal construction is incapable of producing the standing masonry configuration. Two sequential main phases, each completed in its entirety, are necessary, not merely possible.

The Neronian phase 1 skylights in the west side of Room 51 are also important because they confirm the identical chronology in the south side of Room 45, with phase 2 facing inserted in the wall below remnants of phase 1. As already noted, they also prove that the actual apertures were built. Lancaster,²⁰¹ for example, has suggested that the south side of Room 45 never had windows below the high phase 1 arches, but that the high arches were intended to fortify the vault, somehow. Her intention is to deny that there are two phases in the wall and therefore no two-phased chronology in Room 45. This is not tenable. Structurally, arches in this location and configuration do not support the vault, nor do they fortify the lower arches. The lower arches had to bear the weight of the vault at the springing level of the vault, considerably lower than the upper arches. The upper arches merely contribute to the weight of the vault. Furthermore, this configuration is not used anywhere else in the Esquiline Wing. Most important, the evidence in

the west side of Room 51 shows that such arguments are unnecessary. The high arches did cover high windows that were definitely built in phase 1, whereas the phase 2 revisions lower in the walls did not quite succeed in sweeping away all of the evidence for them.

ROOM 51 IN NERONIAN PHASE 2. There were three significant modification campaigns after Neronian phase 1. These were presumably contemporary – three separate parts of Neronian phase 2 – but because their masonry never touches the point cannot be proved. I call them phases 2A, 2B and 2C, but the letters do not indicate the order in which the steps were taken, which is moot.

Phase 2A is the north end and west side of Room 51, consisting of all the Neronian phase 2 modifications required when the phase 2 vault was added in Room 45. The refacing around the door to Room 69 is part of this as well. The modifications consist mostly of the replacement of the high phase 1 skylights with the lower phase 2 windows and doors, including the three extant windows at the north end before they were filled in. These had nichelike indentations on the south side of the wall (Figs. 42 and 55), although the purpose of these is unclear. The masonry is the same pastiche of Types E and F bricks found inside Room 45. The large phase 1 doorway north of the phase 1 cross wall (D50.51 in Fig. 61) was filled in and the wall above and around it filled and refaced with a smaller doorway in it (d50.51N in Fig. 62). The chronology of d45A.51 (Fig. 62) is unclear because the masonry around it is heavily revised; it could date to either Neronian phase. In any case, the core masonry above the relieving arches of d45A.51 and d50.51N was completely refaced in phase 2. The refacing extended up to the barrel vault added north of the conch (Fig. 62; this vault is phase 2B, discussed presently) and filled the aperture of F50.51 above that level. The phase 1 F45A.51 (Fig. 61) was filled completely, replacing its relieving arches. The only trace of F45A.51 is part of the south side of the aperture and the diagonal springing line of the fugitive flat arch lintel next to the cross wall (Figs. 55 and 62).

Phase 2B in Room 51 is the central barrel vault that covers about a third of the room (discussed earlier relative to the phase 1 skylights). This appears in Figures 60 and 61, top center, and 67, top. Phase 2B could be of any date later than Neronian phase 1, maybe even Trajanic. The crown of the barrel vault is considerably lower than the crown of the conch, an aesthetically unpleasing configuration that appears to be incompatible with the conch. The fact that the phase 1 cross wall was trimmed to the perimeter of the conch, and not to the perimeter of the phase 2B barrel vault, seems to confirm this. If so, the phase 2B barrel vault would be later than the conch, although the point is moot. Ultimately, the only definite masonry evidence



67. Room 51: Plan view of the conch.

for phase 2B is that it is later than Neronian phase 1, because it cannot predate the suppression of F50.51 of Neronian phase 1 (Fig. 61). In Figures 62 and 66 the remnants of the original flat and half-round relieving arches remain next to the vault, with the vault obviously cutting through and postdating them.

Phase 2C consists of the apse and conch at the south end of Room 51 and the revisions in the east side of Room 51 related to them. The design of this apse, including the niche in the middle of it and the irregularly coffered conch, is clear from Figures 42, 60, 62, 67 and 68. The need for the 2C modifications has already been noted; when Room 45's windows were moved lower, the south end of Room 51 became visible from Room 45 for the first time. Only at that point did Severus and Celer need to put something attractive there, and phase 2C is their effort to fulfill this need. Notably, the modifications are highly unconventional.

The apse is a common motif, but this conch is uncanonical in the extreme. At a glance it appears to be the concrete core for a normal coffered conch, but in fact the large indentations are irregular (Figs. 67 and 68). Such irregular indentations make the most sense as the foundation for an artificial grotto motif. If this is true, then phase 2C was the first grotto motif in the Nymphaeum Suite, predating that in Room 45. Lavagne has demonstrated that the grotto motif before Nero was limited to exterior settings, as a focal point at one end of an open space or a



68. Room 51: Overview to the south.

colonnade.²⁰² If the phase 2C conch was a grotto, Room 51 would, in fact, have been a canonical location for the motif because Room 51 was hypaethral. The conch in Room 51 is the focal point at one end of an open courtyard, albeit a tiny one, and it is also the end of the vista newly opened to the south of Room 45. One wonders, therefore, if the conch in Room 51 suggested the grotto motif for Rooms 44 and 45 when Otho was casting about for ways to put his own stamp on the Domus Aurea. Furthermore, by closing Room 45's side windows, Otho deleted the view into the grotto from Room 45, so Room 45 itself would have to be decorated as a grotto if the motif were to remain prominent in the Nymphaeum Suite.

Phase 2C also includes minor modifications within Room 51 to accommodate the apse and conch. These include cutting the apse's perimeter out of the cross

wall, plus some trimming and filling on the east side. The intruding alcove of Room 66 had to be cut to shape. Notably, the surface of the scar is not flat, but is of a compound curved shape that forms part of the apse (Fig. 42). Building the apse and trimming Room 66 were therefore part of one project, all dating to Neronian phase 2. In addition, the shallow angle between Rooms 66 and 69 was filled in to create a flat surface for the east side of Room 51. In both this fill and the apse itself the masonry is the highly distinctive Type G, a specialized *opus testaceum* with very small bricks suitable for subtle and complex shapes such as these.

ROOM 51: LATER MODIFICATIONS. After the structural revisions of Neronian phase 2, there were several minor modifications in Room 51. The filled doorways and windows in the north and west sides are the most significant of these, having to do with converting those doors and windows into statue niches, apparently in the Othonian decoration of Rooms 44 and 45.

The fill in d50.51N (Figs. 62 and 64) is more interesting. It could be Othonian or later, but not Neronian. The reason for the more specific dating of this fill is the added cross wall that originally bonded to it. In Figures 58 and 60 the remains of the cross wall appear in elevation, abutting but not bonding with the Neronian phase 2 Type G patch, so the added wall is post-Neronian. The west end of the cross wall is no longer extant, but it was linked to the fill in d50.51N via a prepared semibond, from which it fell away cleanly. This is the best-preserved and most accessible prepared semibond in the Esquiline Wing. The cross wall dates the modifications to the post-Neronian period because it supported a second floor, or at least a ceiling, over the area between the cross wall and the north end. That means the cross wall suppressed the view from Room 45, which is precisely what the lowered Neronian phase 2 windows were intended to exploit, so the cross wall dates to a post-Neronian phase when that view had been abandoned. Because Otho filled in the windows, he obviously had no more need for the view into Room 51 and could divide it up for more lowly functions.²⁰³

As Figures 42, 60 and 62 indicate, there are other later details in the masonry evidence in Room 51, but they can all be ignored because they have no bearing on the Neronian chronology or design aesthetics of the Esquiline Wing. These include a small basin with brick sides at the north center of Room 51 that seems to have been built up against the north side of the later cross wall. This basin does not line up with any of Room 45's windows, suggesting that they had been filled by the time the basin was built. There is also a basin in the southeast corner of the alcove of the apse, apparently a later insertion, bonding with nothing. The floor of Room 51 retains remnants of several types of pavements and drains apparently

belonging to waterworks. None of these can be reconstructed in detail. Because Room 43 had waterworks, at least in Neronian phase 2, presumably there were similar waterworks in Room 51 at the same time.

Room 52

Room 52 is an inconsequential spandrel between several other projects. Its most important evidence is for the relationships between Room 65 and the features that abut it, the south end of Room 51 and the South Party Wall.²⁰⁴ Rooms 65–67 predate the Neronian Nymphaeum Suite. It is not clear what existed in the area of Room 52 when Rooms 65–67 were first built, but there must have been something of significance in this area because Room 65 was originally built with a large doorway in its northwest end to give access to it. This area also remained important in all South Party Wall phases through Type C, which retained a built-in doorway giving access to it. Room 52 only became an inconsequential spandrel in Neronian phase 1, when the Neronian Nymphaeum Suite swept away all evidence of whatever had been there previously. The Neronian version of Room 52 was not compatible with the original design of Room 65 because the north side of Room 52 overlapped the original doorway from Room 65; the doorway was filled and the Neronian masonry of Room 52 runs up to the fill.

Although the northeast corner of Room 52 is illegible, the north and west sides bond and are integral with the rest of the south Nymphaeum Suite (Neronian phase 1). The addition of Room 51's apse in Neronian phase 2 may have had implications for Room 52, but it is impossible to reconstruct what they were. The doorway between Rooms 51 and 52 was roughly cut through the masonry, so it is later than the Neronian phase 2 masonry of the back wall of the alcove in Room 51.

FIVE

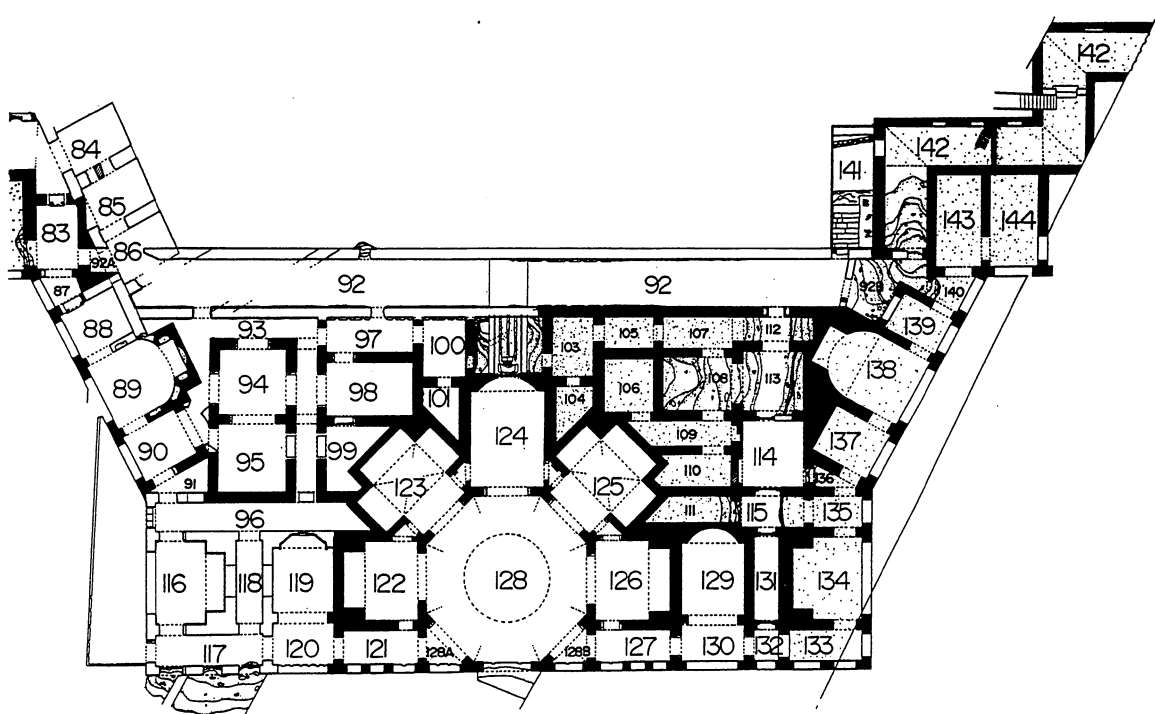


THE EAST BLOCK IN NERONIAN PHASE 2



1. NERONIAN PHASE 2 MASONRY IN ROOMS 93–144

The most complex masonry in the East Block is the pre-Neronian component already described, especially Type C (Chapter 3.3). The Neronian component of the East Block is much easier. Given the fame of the East Block, and especially of the Octagon Suite, my presentation here may seem counterintuitive, so perhaps a brief overview will clarify my intentions. My primary focus, as always, is the masonry chronology. This is so simple in the Neronian East Block as to require virtually no discussion at all, because the entire Octagon Suite and the four quarters of the East Block that surround it are all Neronian phase 2 Type F, all obviously bonding together. There is little need to describe the details of this huge integral block, so I have arranged this chapter to take care of the masonry descriptions as simply as possible, starting with brief discussions of the key features of the quarters surrounding the Octagon Suite. These are included primarily for the sake of the masonry evidence that demonstrates that the Neronian East Block is both later than and different from the pre-Neronian remnants retained in the Neronian design. The Octagon Suite itself is discussed structurally in this chapter and as a design concept in Chapter 6.1.



69. East Block: State plan with Neronian phase 2 Type F highlighted.

The Northwest Quarter (Rooms 93–95 and 97–101)

Most of the masonry chronology of the Northwest Quarter has been laid out to explain the west end of Corridor 92 and the Northeast Group of the Pentagonal Court. The Northwest Quarter itself was of little significance and its simple Neronian masonry chronology requires scant description. The only minor complication is in Corridor 96, described under the rubric of the Southwest Quarter. The eastern rooms of Northwest Quarter (97–101) are all Type F, all bonding integrally with the Octagon Suite and abutting all pre-Neronian masonry surrounding it, including the Type C doorjamb in the southeast corner of Room 91 and the south side of Corridor 92 to the north. The relationship to the Northeast Group in the Pentagonal Court cannot be established through the illegible northeast corner of Room 91, the one corner where their walls actually touch, but there is no reason to suspect any complexities. Both are Neronian Type F. Rooms 93–95 were decorated cursorily in the standard Neronian service corridor scheme, and Rooms 97–101 were not decorated at all, commensurate with the fact that they

were patently useless, intended as such from the start. Nothing else needs to be said about these rooms.²⁰⁵

The Northeast Quarter (Rooms 103–115)

The Northeast Quarter includes one of the best-known rooms in the Esquiline Wing, Room 114 commonly illustrated because it has the best-preserved frescoes in the Esquiline Wing. This is somewhat misleading, however, because it is only the preservation that is of top quality; the fresco scheme is merely the standard Neronian service corridor type, not at all representative of rooms decorated for use by Nero himself. On the other hand, the appearance here of this fresco scheme confirms that this was an area of lesser status. There is no other decoration of any sort preserved in the Northeast Quarter, but presumably Rooms 112 and 113 had a scheme similar to 114 and 115. These are obviously part of an important service corridor, providing access to the eastern and southeastern *sellaria* of the East Block, via Rooms 132 and 136. The entire corridor must have been decorated accordingly.

The only potential complexity with the Northeast Quarter is the fact that most of its rooms remain at least partially filled in (Fig. 69; Rooms 103–111 are entirely filled in; Rooms 112–113 are cleared to floor level only in a north-south path down the center). The corners throughout the Northeast Quarter are therefore imperfectly accessible, but as far as can be told everything bonds together. The west side of Room 113 may be anomalous in that it appears to have been built before the rest of the room, and then the north and south sides abutted it. That reading is probable, not proven, but if it is correct, then it might indicate that the Octagon Suite was built first in the center of the East Block, including Rooms 103–111, and then Rooms 112–115 and 131–140 were added to the east. The Northeast Group in the Pentagonal Court may have a similar chronology.

This would appear to be logical procedure, building the interior first, so that exterior construction does not interfere with it. The putative sequence of steps would be from west to east, starting with the standing remains from Type C, Rooms 96 and 116–119 and the west half of Corridor 92 (the unhighlighted areas of Fig. 69). The first Neronian step would be Rooms 93–95, filling in the hypaethral area from the Type C project. The Neronian component of Rooms 89–91 is chronologically independent of this; it could have been built first or added later. The entire Octagon Suite and its adjacent rooms were then built to the east, up to the long north-south corridor through rooms 112–115 and 131–132. This means that Rooms 97–111 and 121–130 would all have been built as one unit. Finally,

everything to the east of that was added (Rooms 112–115 and 131–140). I beg the patient reader to make particular note of my use of the word “putative”. Because Rooms 103–111, 114, 115 and 133–137 are inaccessible, this chronology cannot yet be demonstrated conclusively. The fact that everything bonds together in all surrounding areas, however, proves that no significant masonry complexity is possible in the Northeast Quarter. Excavating the remaining fill would tell us little.²⁰⁶

The Southeast Quarter (Rooms 129–134)

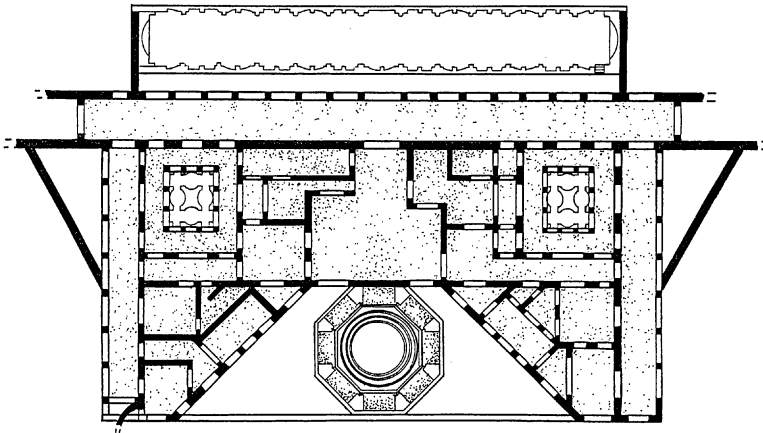
The Southeast Quarter can be dealt with briefly and efficiently, even though only half of it is accessible (Fig. 69²⁰⁷). Rooms 133 and 134 were cut off by the foundations for the southeast side of Trajan’s Baths and Room 135 is filled in completely, with no spoliation tunnels giving access to it. The Trajanic foundation must come close to the southeast corner pier of Room 132, possibly imbedding it. The south and east doors of Room 132 were filled in with Type M masonry, most likely bonding with the foundation wall, similar to the fill at the southwest end of Room 89. I have not studied Corridor 131, which has been sealed, along with Room 114, for microclimate analysis. The remaining three rooms, Rooms 129, 130 and 132, are all Neronian phase 2 Type F, bonding with the adjacent Octagon Suite.

Rooms 129 and 130 were made pendant in design to Rooms 119 and 120 in all respects of plan, vaulting, decoration²⁰⁸ and fenestration. They are not part of the same phase, however; Severus and Celer inherited Rooms 119 and 120 from the Type C project and made Rooms 129 and 130 echo their design in mirror image. Severus and Celer also had different needs from the Type C architects and modified the design accordingly. Most notably, the apse in Room 129 was larger than the Type C apse of Room 119. Room 111 was set farther north than Corridor 96 and its south side was thickened to accommodate the larger apse of Room 129.²⁰⁹ Room 111 was of little consequence, of course, so the fact that its design was made even more awkward by the apse of Room 129 was not important to Nero. As already noted, the reason for making the apse larger in Room 129 was to accommodate the large revetment sheets of the Neronian decoration scheme. Room 119’s apse was designed in the Type C project when only fresco decoration was intended. The Type C apse had to have vertical grooves cut into it to accommodate the corners of the large Neronian revetment sheets. This was much easier to do than to rebuild the entire apse on a slightly larger radius, but in Room 129, Severus and Celer designed the actual apse with a radius big enough to fit the revetment panels right from the start. Room 129 never needed the vertical grooves and therefore does not have them.²¹⁰

Like the Southwest Quarter, the Southeast Quarter fits around the Octagon Suite neatly, without spandrels. The design of the rooms obviously corresponds to the Southwest Quarter as well, making the entire south façade of the East Block symmetrical in plan. Rooms 116–122 form a nice unit, with Rooms 116 and 122 being basically mirror images of each other, and Rooms 126, 127 and 129–134 forming a pendant group of nearly identical plan in mirror image. On the other hand, this is only a feature of the plan, not detectable in situ. A viewer anywhere in the East Block could never see at one time all the features that establish this symmetry. This is like the West Suite, where the abstract geometry, in particular the east–west symmetry, is obvious only in plan, while the actual building divides itself very differently, according to aesthetic and environmental factors. In the East Block, Rooms 116–120 form a reasonably coherent ensemble, as do Room 129–134. In order to see the mirror image relationship between these ensembles one must carry a detailed visual memory of one ensemble into the other. This is difficult to do because the route between them is through the Octagon Suite, a dazzling distraction.

The only chronologically distinctive masonry in Rooms 129 and 130 is the *opus mixtum* in the south doorway of Room 130, pertaining most likely to the reuse of the Esquiline Wing as slave quarters, assuming that it is part of the same project as the *opus mixtum* found elsewhere in the Esquiline Wing.

A few details of Room 132 are worth noting briefly.²¹¹ The design of Room 132 does not perfectly mirror the corresponding area of the Type C rooms in the Southwest Quarter (the east end of Room 117). Room 132 is a tiny, square hallway, serving no function other than giving passage between all surrounding rooms. It has four doorways nearly filling its entire perimeter and these are probably the only original apertures in the room. Neronian practice would have been to install a suspended ceiling just above the lintels, but there is no trace of this remaining. There were no original windows above in any case. There are, however, later windows cut through the tops of the north and south sides, with a diagonal feature descending through them to the south. This is most likely a Trajanic drain. Certainly it was not intended for human use because the window at the north end is too low to pass through. Fabbrini²¹² has suggested that the East Block may have had an elaborate façade, possibly illustrated in a famous *dupondius* with the legend *MAC AUG*. Some of the evidence adduced for his argument included a still-mysterious curved wall in the southwest corner of the *piano nobile* (in the lower left corner of Fig. 70) and the inserted features high in Room 132 under discussion here. She interpreted the latter as a staircase. I have argued against this interpretation²¹³ but do not repeat either Fabbrini's earlier arguments or my own rebuttal because Fabbrini's thinking



70. East Block: Reconstructed schematic plan of the *piano nobile*, based on the foundations excavated by Fabbrini.

on the subject has evolved.²¹⁴ Now she says that recent research has revealed a simple barrel vaulted colonnade across the East Block façade. That would be more in keeping with the evidence in Room 132 and might also explain why the curved wall at the southwest corner of the *piano nobile* does not manifest itself at ground level (assuming it is Neronian at all). In any case, Fabbrini has apparently withdrawn the suggestion of a more elaborate façade, including the arguments based on the *MAC AUG dupondius*, and they need no longer complicate our thinking on the East Block. Figure 5 has been drawn accordingly, with a colonnade covered by a barrel vault. A barrel vault running along the façade of the East Block would also explain why none of the façade rooms had the kind of small high window that would have opened above a simple shed roof; the vault would have projected higher and blocked such windows. That is also why the East Block colonnade has an attic story above it, at the level of the vault. In contrast, the façade colonnade of the West Block had only a shed roof, but no barrel vault, as shown in Figure 5.

The East Façade (Rooms 133–144)

I no longer refer to the area to the east of the East Block as the East Pentagonal Court. This is not because I am certain there was no pentagonal court there – ultimately the question is moot – but given what evidence we do have, it is unlikely. The façade of Rooms 133–144 mirrors the façade of the Northeast Group and East Group of the Pentagonal Court, making a second pentagonal court on the east side an attractive possibility, as Fabbrini has suggested.²¹⁵ The design of Rooms 133–144 is the only evidence we have, however, with an angled façade similar to

the east side of the Pentagonal Court. This would certainly be commensurate with an eastern pentagonal court, but it does not demonstrate that there was one. The same evidence can be accounted for just as validly in terms of the obvious desire to make the two sides of the East Block symmetrical. In order to prove that an eastern pentagonal court existed, we would need to recover the northeast and east sides of it. The problem with that is that what evidence we do have for this area is of a different design, contradicting the existence of an eastern pentagonal court (Fig. 2).²¹⁶ The eastern pentagonal court is hypothetically possible only if the evidence we already have is completely wrong.

Little else can be said about the East Façade. Rooms 133–137 are completely sealed and filled. Rooms 133 and 134 may no longer exist at all, possibly removed when the Trajanic foundation was added there. Rooms 138–140 and 143–145 are accessible, but remain filled in to the springing level of the vaults, so the wall masonry cannot be studied. I have personally studied only Rooms 138–140 and 143. I have also looked into Rooms 144 and 145 through the small crawl hole by which they are accessible and deemed them not worth the risk of entering without assistance. Fabbrini gives the numbers 146–150 to rooms that she reconstructs from earlier excavations, but these are beyond the east edge of the Trajanic foundation platform and are at best inaccessible, assuming they exist today at all.

The masonry evidence is not problematic, however. All of the walls were *opus testaceum*, although only a few bricks in the topmost courses remain exposed above the fill. Most corners are illegible, but those that can be analyzed all bond. The legible corners demonstrate that Rooms 140 and 143 are integral; there are no problematic passages to suggest the other corners do not bond. Furthermore, the back ends of Rooms 137–139 are set into a spandrel of solid masonry whose back side is the east sides of Rooms 112–114. The masonry evidence in those rooms is not very good either, but the east corners of Room 112 definitely bond, whereas the others are illegible, but give no indication of complexity. What evidence we have, therefore, suggests that all East Façade rooms were built as an integral unit, bonding with each other and with the rest of the East Block.

The design of the East Façade rooms is canonical, all longitudinally barrel-vaulted *sellaria* (Room 140 has a truncated conical vault, of course). The design is similar to the pendant Northeast Group in the Pentagonal Court Complex. The distinctive segmental apse of Room 89, with a conch whose crown is lower than the room vault, is repeated in Room 138, although Room 138's apse is closer to a complete semicircle in plan (Fig. 69). These are both part of Neronian phase 2, so the fact that they are similar to each other, yet different from the pendant pre-Neronian Type X Room 66, makes good sense.

The decoration in the East Façade rooms cannot be reconstructed in detail. Only vault frescoes are visible, in Rooms 138 and 143. Other than the fact that there was no relief stucco, nothing can be said about the program from available evidence.

In sum, the evidence from both the Northeast Quarter and the East Façade is limited, but it consistently indicates that these areas were all part of the Type F East Block project, all bonding together. These areas differ saliently from the corresponding areas of the Pentagonal Court Complex, which retain abundant evidence of reused pre-Neronian masonry. That fact is important because it confirms, again, that consistently bonding Neronian construction is readily identifiable, even when it is in bad condition and deeply backfilled. The complexities around the Pentagonal Court clearly do not represent Neronian practice, but exist specifically because pre-Neronian material is incorporated. As was the case with the Neronian Type E projects in the West Block, the eastern parts of the East Block confirm that we can tell the difference.

The Octagon Suite (Rooms 121–128)

Since its excavation in the 1930s, the Octagon Suite has been recognized as one of the most important early Imperial essays in the concrete medium. Undoubtedly other Neronian buildings, now lost, contributed to Nero's lasting influence on Roman architectural design, but the Octagon Suite is so radical that it would have served that function on its own and the scholarly attention lavished upon it is well deserved. It is perhaps ironic, then, that my detailed study of the masonry in the Octagon Suite adds rather little to our understanding of it.²¹⁷

This is also a good thing. The masonry in the Octagon Suite is the easiest to understand in the Esquiline Wing, well preserved and very clear. Everywhere else in the Esquiline Wing the evidence has been complex, in some places ambiguous; in the Octagon Suite certitude is absolute. The entire Octagon Suite is Neronian phase 2 Type F. In both description and masonry densities, it is consistent throughout, all bonding together with no detectable flaws in the masonry. No caveats, exceptions or uncertainties apply to either of those statements. Furthermore, wherever the surrounding rooms are accessible the Octagon Suite's Type F bonds to all surrounding Neronian architecture, also all Type F.²¹⁸ There were no significant pentimenti,²¹⁹ and there was no subsequent reuse as slave quarters or storage, at least none that involved architectural modifications or redecoration. The Flavian spoliation was as thorough here as anywhere, but it left enough of the bedding mortar to reveal much of the decoration scheme, including both the wall revetment

and some of the pavement. The spoliation also did not damage the masonry and exposed a large, legible sample in every room of the Octagon Suite. Within the Octagon Suite there was no Trajanic intervention at all and only minor revisions around the periphery.²²⁰

The evidence is well preserved and the conclusions to be drawn about the Octagon Suite are unequivocal. The construction process was identical to the great Neronian phase 1 Type E projects, the West Suite and Nymphaeum Suite. Like these, the design of the Octagon Suite was not only prepared in advance, but also finalized in every detail before construction started. There was a single design, which was completed exactly as originally laid out, with no changes incorporated during construction. This includes the vaults. The oversight of the construction was flawless, with consistent masonry throughout the entire suite, no detectable flaws in the bricklaying and all corners bonding, either in the core concrete or with prepared semibonds. The absolute confidence with which the Octagon Suite was laid out and built is palpable. In the West Block the phase 1 Type E constructions were later complicated by the inserted phase 2 Type F revisions, but in the Octagon Suite there is no such intervention; it is obviously the crowning glory of the Esquiline Wing, known by Severus and Celer to be a tremendous achievement before the first brick was laid and requiring no tweaking. The completed Octagon Suite was then decorated – a project that was also completed from floor to ceiling – and it evolved no more.

Even the decoration is predictable, at least in so far as it is much the finest in the Esquiline Wing. All walls were completely reveted up to the springing lines of the vaults, including pilaster strips articulating the corners of the octagon. Lesser vaults (the alcoves in Rooms 123 and 125, for instance) were decorated with frescoes with relief stucco, and the dome was decorated with glass mosaics, some of whose blue, blue-green and white tesserae remain in the floor.²²¹

The design and masonry chronologies in the East and West Blocks are informative too. Given that the West Block was much simpler and less revolutionary in design, *a priori* it would appear to be the earlier of the two. Success with the simpler West Block might well have led to the confidence needed to attempt the splendidly revolutionary Octagon Suite.²²² All masonry evidence suggests the same chronology. In the West Block, the Type E design is certainly a major construction, but then again so is the rather complex ensemble of Type F revisions inserted within it. The multisteped process of original construction in Type E, reassessment of the completed Type E design and revision in Type F took some time. Those steps might theoretically have been squeezed into the final four years of Nero's reign after the great fire, but this seems unlikely. The West Block

masonry phases bespeak a longer, slower process, a process that makes better sense if it started before the fire, with the fire itself articulating the two phases.

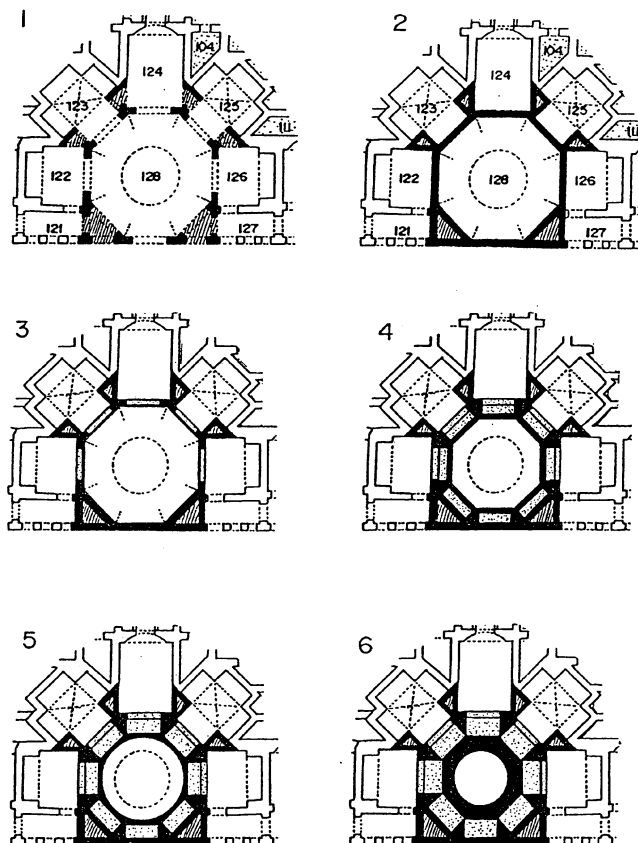
The Octagon Suite, in contrast, gives no such sense. It was certainly built all at once, as is typical of Roman concrete. That is, once construction started, it was taken to completion because later concrete had to be added while previous concrete was still wet. Like the Type E projects in the West Suite, it was a flawlessly organized set piece, rather like a military operation. The whole project was planned out in advance. The requisite personnel, tools and materials were arranged for, brought to the site and organized, and then the commander said, “go”. The endeavor charged headlong, without stopping until the whole design was assembled with its concrete core and vaults bonding throughout.²²³

So, the masonry of the Octagon Suite is easy, but it is not in the masonry chronology of the Octagon Suite itself that my study contributes most to our understanding of it. Rather, it is in its relationship to the design and masonry chronology of the rest of the Esquiline Wing, most specifically of the Nymphaeum Suite. A detailed comparison of the two is informative. My discussion of the Octagon Suite is illustrated by Figures 5 and 69–77. A brief review of the key features will help to relate the design to the Nymphaeum Suite.

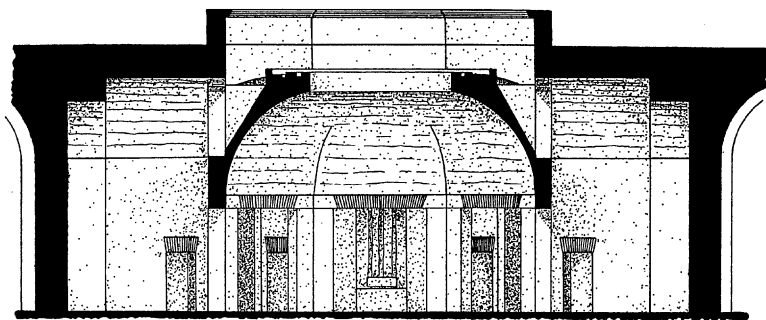
The core of the Octagon Suite is the octagonal rotunda, Room 128. This is a famously complex design that is difficult to describe. Figure 71 illustrates the following discussion. It consists of six copies of the plan of the Octagon Suite with horizontal sections at various levels rising from the lintels of the surrounding doorways to the oculus. The final step in this sequence is the plan view of the top of the dome in Figure 70. In Figure 71 solid black indicates masonry cut by the horizontal section at each level; stippling indicates a surface below section level, but higher than the floor level (either the tops of the lintels or the extrados of the dome). Comparison of the horizontal sections with the transverse sections of the dome (Figs. 72 and 73) helps clarify the following description.

My thesis for the structural system for the Octagon Suite is essentially the traditional interpretation of it,²²⁴ which I refine with additional detail. The structural system is concentrated at the haunch level of the dome and above, specifically at the corners. A number of devices contribute to the structural system, most of them cleverly concealed from view, so that at ground level there is little structure under the dome at all, either actual or apparent, making the dome appear to be very light.

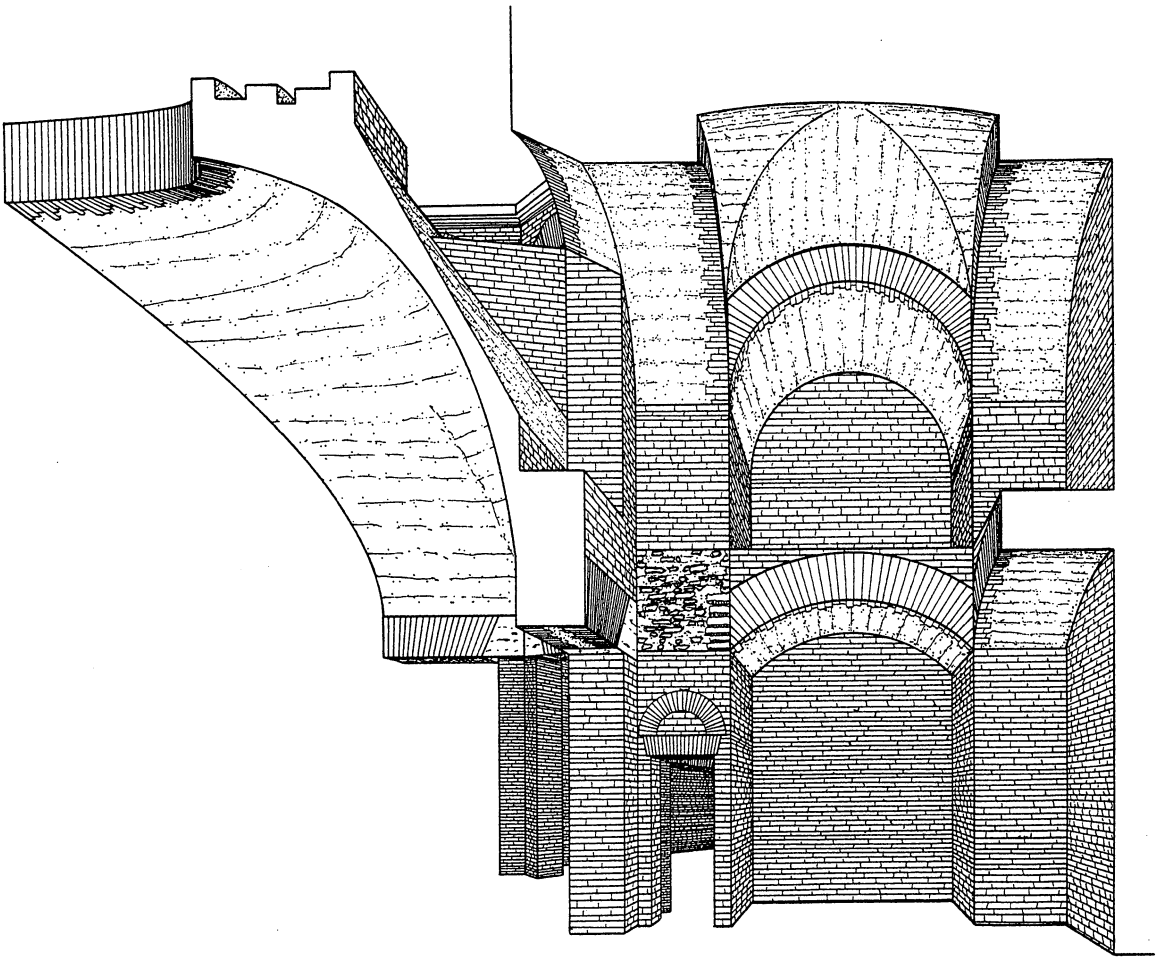
The aesthetic essence of the Octagon Suite is illustrated by Figure 71.1, where the octagon is defined by eight slender piers in its corners. “Corner pier” refers specifically to the actual corners of the octagon, separated from the surrounding



71. Octagon Suite: Sequence of plans indicating the solid masonry at different levels (horizontal sections) moving upward through the dome. The masonry of the radiating rooms is not included in the highlighting. Solid black is solid masonry; hatching is the areas of the six triangular piers described in the text; stippling is the top surface of a feature above floor level that is being looked down upon at that level. 1) Ground level (state plan). 2) Lintel level. 3) Just above the lintels (cf. the slender masonry above the lintels in Fig. 73). 4) The highest level in the dome where the shape of the dome remains of faceted octagonal design. 5) Just above the previous, where the dome has taken on a rounded interior shape (the exterior is still octagonal; cf. Fig. 73). 6) At the level of the oculus (cf. Fig. 73, where the octagonal exterior shape extends vertically at the top, thickening the concrete around the oculus).



72. Octagon Suite: Transverse (E-W) section through the center of the octagon (Room 128) and elevation, looking north.



73. Room 125: Longitudinal section through the crown of the vault (SW-NE), including half of the dome of Room 128, looking northwest.

masonry by triangular passageways between Rooms 122–126 (Fig. 74). The corner piers also form the jambs for the eight broad doorways that form most of the perimeter of the octagon. To the eye, the corner piers appear to support the whole dome, but in fact they are only a small part of the structural system in the corners. It is better to think of the structural system as consisting of six large, hollow triangular piers, indicated with hatching on Figure 71. All eight of the corner piers are incorporated into these large, hollow triangular piers. The large triangular piers are difficult to sense at plan level because their sides are opened with doorways, leaving narrow piers in the corners, including the eight corner



74. Rooms 128 (left) and 126 (right), looking north.

piers of the octagon. From lintel level on up, however, the triangular piers are solid masonry, as Figure 71.2–6 indicates. They bond in their three corners and are covered with half-cloister vaults. The six triangular piers therefore form sturdy, stiff supports at the corners of the octagon, far exceeding the strength of the slender corner piers alone. The triangular piers are also integral with the radiating rooms of the rest of the Octagon Suite, of course, lending considerable further support.²²⁵

The south corners of the octagon are squared by the biggest of the triangular piers, labeled as Rooms 128A and 128B on Figure 69. These form the southeast and southwest sides of the octagon and support both ends of the south side. All four of the southern corner piers are incorporated in these two triangular piers. At plan level, both of these piers are penetrated by doorways in all three sides, but above the lintels there are no apertures. The other five sides of the octagon have vault haunch clerestory windows above the lintels, but these do not appear in the south three sides, which do not open into radiating *sellaria* (Fig. 71.2–6).

The northern four triangular piers are smaller, consisting of the small triangular passageways that lead around the outside of the octagon from Room 122 through 126. Each one of the four northern corner piers is the inner point of one of these triangular piers. The northern triangular piers also appear rather tenuous at ground level because of the doorways opening through them on either side, but their back walls (the sides away from the octagon) are completely solid. As Figure 71 shows,

these piers, too, have no apertures above lintel level; they are tucked between the vault haunch clerestory windows.

All of the triangular piers stood above the extrados of the dome, running up to the roof level on which the *piano nobile* was built (Figs. 5, 72 and 73).²²⁶ The triangular piers extending above the dome supported it with large integral concrete struts, which span from the piers to the eight corners of extrados of the dome (Figs. 70–73). From inside Room 128, however, none of this structural system is visible, hidden above and behind the dome itself. The dome, therefore, appears to rest only on the slender corner piers.

The shape of the struts on the extrados is also informative. The radiating rooms had vault haunch clerestory windows opening onto the haunch of the dome and these struts consist of the sides of these windows extending out to the extrados



75. Room 123: Overview to the southeast, including a view out of the vault haunch clerestory.



76. Room 123: Overview to the northeast, with full elevation of the northeast side (cf. Fig. 73, which reconstructs the analogous view in Room 125).

of the vault (Figs. 70, 73, 75 and 76). In plan, therefore, the struts taper sharply toward the extrados (Fig. 70). When viewed from above, this configuration appears to link the extrados to the struts via a slender band of masonry, which is especially obvious in Figure 71.5–6. This is illusory, however; the structural system is both much more sturdy and much more clever. This is illustrated by Figure 71.4–6. The extrados of the dome slopes away from the vertical walls with the vault haunch clerestory windows. Because the sides of the struts converge, the longer the strut, the narrower it becomes. This means that at the bottom, where the struts are very short, they are also quite broad (Fig. 71.4). Conveniently, this is also where the load is greatest. As the dome ascends (Fig. 71.5–6), the struts become progressively thinner as the load becomes progressively lighter. It is a perfect tailoring of the design of the concrete to its structural job.

More famously, the struts are also perfectly tailored for the aesthetic needs of the Octagon Suite. The tapering shape of the struts keeps the apertures between them as open as possible, allowing maximum skylight to reach the vault haunch clerestory windows between the struts. Because these were the most important source of light for the radiating rooms, as well as a major component of the whole lighting system for the Octagon Suite, the aesthetic aspects of the strut design were crucial. By tapering the joint between the struts and the extrados, Severus and Celer left a large, flat, rectangular panel of extrados directly facing each clerestory window, providing a reflecting surface to guide the most possible light into the room. Notably, this is the same configuration as the vault haunch clerestories in the north sides of Rooms 47–49, cut through the phase 1 walls to gather reflected light from the south haunch of Room 44's phase 2 barrel vault. As I have already posited, the East Block appears to be the next step after the phase 2 revisions in the West Block. Severus and Celer, therefore, appear to have experimented with this motif in the Nymphaeum Suite and then used it again in the Octagon Suite much more successfully.

The actual shape of the dome also contributes to the structural system, in ways that are both more complex and more clever than have been noted heretofore. The struts around the extrados already make it obvious that the structural load



77. Room 128: Overview to the north. The wide-angle lens makes the overall proportions appear more squat than they actually are, but the proportions of the doorway in the center are correct.

was conducted to the corner piers well above the slender door lintels from which the dome springs (Figs. 71 and 73). At lintel level the dome corresponds precisely with the plan of the room. The bottom half of the dome is of octagonal plan, with corners cast into the concrete (Figs. 73 and 77). From the springing level up to haunch level, both the intrados and extrados are of octagonal plan. This is illustrated in Figure 71.3 and 71.4, showing, respectively, the dome just at its springing line (just above the lintels) and at the top of the octagonal lower section, just below where the intrados becomes round. The extrados remains octagonal to full height, with steep, flat facets all the way to the top. The intrados is more complex, however. The bottom half is octagonal, with extremely thin fabric at lintel level, attached to the lintels only along their inner corners. Figures 71.3 and 73 show the configuration; immediately above the lintels, the dome fabric is so thin that it nearly vanishes into the line weight of Figure 71.3. The piers at the corners are the obvious structural system at that level, whereas the very thin fabric of the dome at lintel level is incapable of bearing much load at all. From the lintels to the haunch level the octagonal shape rises sharply, with the fabric thickening as it rises, corresponding to the curved section of the intrados. The section of the vault in Figure 71.4 is therefore considerably thicker. This, then, should be thought of as the base of the structural system that holds up most of the weight of the vault.

At haunch level several important changes occur. Most obvious to the eye, the corners between the octagonal facets of the intrados give way to a smooth, rounded shape (Figs. 73 and 77). Also the profile of the dome becomes much flatter, leaning in to the crown of the dome and oculus. Most important, the rounded shape of the intrados makes the cross section of the dome more complex, as illustrated in Figure 71.5. The contrast between the round intrados and the octagonal extrados leaves notably thicker fabric in the corners.²²⁷ This structural system is invisible from the interior of the dome, but the thicker fabric at the corners acts like eight triangular ribs, of broad isosceles cross-section, radiating out from the oculus toward the corners of the octagon. The struts on the extrados are at the corners too, undoubtedly integral with the riblike thicker corners of the dome fabric, creating a contiguous structural system radiating from the oculus all the way out to the triangular piers in the corners. The structural system of the dome is therefore something like a large, flat wheel with the oculus as the hub. The hub is surrounded by a broad, nearly flat octagonal expanse of concrete extending out to a vertical top section of the extrados. This shape appears in horizontal cross-section in Figure 71.6, essentially a flat slab that needs to be held up at the corners. The rest of the wheel-like structural system consists of eight spokes radiating out to the rim at the



78. Room 128: Overview of the dome (looking to the west).



79. Room 128: Detail above the southeast lintel, including formwork impressions and remnants from the setting bed for the dome mosaics.

outer perimeter of Room 128. The wheel is only slightly concave from the oculus down to the haunch, and then the struts around the extrados carry the load more steeply downward to the corners outside the profile of the dome itself.

Between these structural spokes the thinner vault fabric is like a light curtain wall, blending smoothly and bonding integrally with the spokes. These light curtains descend from the haunch level down to the door lintels below, loading them very lightly and not blocking any part of the vault haunch clerestory windows. Conversely, the lintels only support these light curtain walls, smoothly maintaining the dome's profile, but not actually providing much support for the crown of the dome. The lintels can therefore be long and thin (i.e., relatively weak), because they have little work to do. Furthermore, the lower parts of the dome that do bear on the lintels are of tall, thin shape, a shape that makes them stiff, self-supporting structural members in their own right, further reducing the load on the long door lintels.²²⁸

In sum, the illusionism of the door lintels is obviously intentional. The lintels appear to be much less support than the dome requires because, in fact, they are inadequate for that task. The illusionism consists of the smooth intrados of the dome, appearing to spring from the lintels, and bear on them, when in fact it does not. The true structural system is completely different, yet also invisible. The dome, therefore, appears to be supported by impossibly slender corner piers and the gossamer lintels between them. As icing on the cake, the eight radiating structural spokes at haunch level also make possible the vault haunch clerestory windows between them. These in turn create the famous lighting system that further dematerializes the dome in the viewer's perception. Sparkling glass mosaics on the dome would have heightened the sense of lightness even more.

The construction of the dome has always been recognized as a precocious tour de force; my analyses only refine and augment that interpretation. Technically, however, the construction was rather straightforward. As with all Esquiline Wing vaults, the dome was cast directly onto the wooden formwork planks, without intervening facing, so that impressions from the formwork remain in the concrete (Figs. 77–79).²²⁹ Where the octagonal facets give way to a round surface at haunch level the two shapes simply blend together, exploiting the flexibility of the concrete medium. The flexibility of mosaics could easily cover this junction. The oculus is ringed with large tiles of various sizes that key into the fabric of the dome (Figs. 73 and 78). The tiles were apparently made specifically for this oculus because the angle between the inner edge of the oculus and the intrados of the dome is somewhat obtuse because the intrados is still rising when it reaches the oculus. The tiles fit this angle exactly, giving the oculus a vertical inner surface.

SIX



SYNTHESIS: THREE INTERPRETIVE ESSAYS



1. MASONRY IMPLICATIONS FOR THE DESIGN OF THE OCTAGON SUITE

Besides the dome itself, the most important architectural features of the Octagon Suite are the vault haunch clerestory windows over the extrados of the dome and the groin vaults in Rooms 123 and 125. The groin vaults are the earliest known examples of this motif in Roman concrete,²³⁰ discussed in greater detail in Section 2 of this chapter, but the vault haunch clerestory windows are more informative as far as the masonry chronology of the Esquiline Wing is concerned. They are integral to the whole design concept of the Octagon Suite, both because they bond to all surrounding masonry and because they play an important rôle in the lighting system. They not only light the radiating rooms, but also help lighten the appearance of the dome when viewed from inside Room 128 by letting light stream into the radiating rooms above the vault. They give the viewer in Room 128 the sense that there is nothing above the vault at all, disguising the fact that that is where the structural system for the vault actually is.

Except for the groin vaults, most major features of the Octagon Suite have to do with lighting. The visual effect of a feather-light dome, appearing to hover in a sea of light all around it, is almost mystical. It is similar in visual impact to trompe l'oeuil painting, clever and wonderful. Obviously lighting was a design motif that Severus and Celer considered carefully, exploiting a variety of disparate motifs,

spread throughout the Octagon Suite, to arrive at an exquisite and wholly novel ensemble. The structural engineering is correspondingly impressive, and every bit as novel, but it was also clearly subordinate to the aesthetics. The architectural techniques involved in lighting the Octagon Suite tell us a lot about the methods and personae of Severus and Celer.

To reconstruct their thinking we must compare the Octagon Suite with the Nymphaeum Suite. These are both discreet design exercises, concentrated into fairly compact spaces, yet also participating in the overall design of the Esquiline Wing. They are also sequential, as the two-step chronology of the Nymphaeum Suite indicates. The sequence of steps can be encapsulated as follows (and are described in detail in Chapter 4.3). The Nymphaeum Suite was first built in phase 1 Type E masonry, designed to resemble a typically grandiose patrician luxury villa. Second, that design was modified by the inserted vaults in Rooms 44 and 45, the one in Room 44 requiring additional support from added phase 2 Type F walls. The feature that matters most in this step is the vault haunch clerestory, a feature that not only did not exist in phase 1, but also did not exist in the previous history of Roman architecture. Significantly, in the transition from phase 1 to phase 2 in Room 44, the vault haunch clerestory motif materialized whether or not Severus and Celer intended to design it. This is crucial, because the actual invention of the motif is accounted for by the masonry chronology. From the point of view of Severus and Celer, the vault haunch clerestory was not only brand new, giving it the kind of novelty that both they and Nero craved, but also clever and handy. The handiness was important in the context of the Esquiline Wing, with its terraces and verandas on the *piano nobile*, because it allowed for clever manipulation of light in the ground floor without forcing true clerestory vaults up above the floor level of the *piano nobile*.

Room 44 is also important chronologically in that its original trabeated design was replaced with vaulting. Because this was a change mandated by Nero himself after the great fire of A.D. 64, the change from phase 1 to phase 2 in Room 44 is both explained and dated by the great fire. Because one expects repairs to the Domus Transitoria to predate brand-new construction in the Domus Aurea project, it is most likely that the modifications in Room 44 took place before the Octagon Suite was built.

The Octagon Suite, then, was a single integral project conceived of and built after Severus and Celer had learned all they could from the Nymphaeum Suite modifications. In phase 1 of Room 44, lighting was not a design concept at all; it was the same kind of lighting found in any normal compluviate atrium. Traditional atrium lighting was not very good, and certainly not clever at all, but

in phase 1 the most important concept was the familiarity of the common villa motif, not cleverness. In phase 2 of Room 44, lighting became a design issue, but an unwelcome one, because the replacement of the *compluvium* eliminated an important light source. The tool that Severus and Celer used to address the newly problematic issue of lighting was the vault haunch clerestory window, which had come to hand inadvertently during the revisions. The first intentional use of the vault haunch clerestory was in the same phase, when windows were cut through the solid concrete of Room 44's south side to light Rooms 47–49. In this case, however, lighting was not employed dramatically and cleverly, but desperately, to meet a newly acute need not previously anticipated. Also, in Rooms 47–49 the use of the vault haunch clerestory was tentative, of little value as far as lighting was concerned, because Severus and Celer were revising standing walls, not designing from scratch. On the other hand, it did work. Severus and Celer undoubtedly knew they had a fine motif on their hands, but one whose potential they had only barely tapped so far.

The third step was the Octagon Suite, where the vault haunch clerestory was used with triumphant success. It must have been exciting for Severus and Celer, in the wake of the great fire, to have Nero's enthusiasm and resources behind them and a blank slate nearly as big as the city itself. The resulting Octagon Suite is one of the most precocious designs in the history of Western architecture, and intentionally so. Severus and Celer used every clever, novel, creative feature they could think up. The features already described, the structure, the complex spaces and the lighting, all contributed to this. So did the brand-new motifs in the Octagon Suite, the vault haunch clerestory and the groin vaults.

Those factors only slightly modify our understanding of the Octagon Suite, however. Its novelty and importance were already clearly established by its position in the evolution of concrete design in the first century. The fact that Severus and Celer experienced complexities in Room 44, which led up to important ideas in the Octagon Suite merely clarifies their thinking somewhat, but does not radically change our understanding of their methods or ideas.

A more careful comparison with the Nymphaeum Suite is needed for that. For the following discussion compare Figures 49 and 72 and Figures 30 and 69. At a glance, the two are fundamentally different, a fact reflected in the scholarship. The Octagon Suite is universally regarded as precocious, complex and visually exciting; the Nymphaeum Suite is considerably less so. Prior to my own study, the grotto decoration was the only component of the Nymphaeum Suite to receive much scholarly attention at all. As architectural design the Nymphaeum Suite has been universally ignored.²³¹ In addition, the prevailing impression of Severus and

Celer is that their design processes in the East Block were precipitate, glossing over irregularities and complexities in the Octagon Suite simply by sequestering them away in the back of the East Block, in areas that Nero would never enter. There is truth to this, of course, as the plans indicate. The Nymphaeum Suite, in contrast, is of rectilinear shape in a rectilinear setting, without any complex spandrels to speak of, other than around the apse of Room 51. It appears much less inventive, with few risks taken. Indeed, in the compluviate first phase this was simply true; the villa motif was *retarditaire*.

Overlooking the Nymphaeum Suite is a terrible mistake, however. Even though, at a glance, the Nymphaeum Suite and Octagon Suite seem to be quite different, in fact their designs have much more in common than not. They bear a cause-and-effect relationship, with the first two phases of the Nymphaeum Suite being the cause and the Octagon Suite being the effect. The basic design is established by the Nymphaeum Suite. Consider the following description: Room 44 is the large, square room in the middle, originally lit from above by the *compluvium*. Room 45 was a lesser room, on axis, with a light source between the two in the form of the hypaethral Room 45A. Flanking Room 44 were symmetrical triads, with a larger central room (40 and 48) flanked by two smaller rooms. In phase 2, the flanking rooms were lit by vault haunch clerestory windows. That description covers most important features of the Nymphaeum Suite.

Now, consider the corresponding description of the Octagon Suite. The only significant departure from the description of the Nymphaeum Suite is Rooms 123 and 125, radiating diagonally from the north oblique sides of the octagonal dome. Everything else is essentially the same as Room 44. Room 128 is analogous to Room 44 and Room 124 is analogous to Room 45, defining the end of the main axis through the group. Both even have waterworks defining the back end of the main axis. Room 128 has an octagonal dome instead of a barrel vault of square plan. In the south corners the octagon is even squared by small triangular spandrels (Rooms 128A and 128B), so it fits into the plan like a square. Only the north oblique sides facing Rooms 123 and 125 are different in plan from Room 44, and except for these truncated corners, the size of Room 128 is the same as Room 44 too.²³² The flanking triads in Room 44 are repeated in the Octagon Suite as well, again with the exception of Rooms 123 and 125. Rooms 121 and 122 on the west side facing Rooms 126 and 128 on the east indicate this motif clearly. If the octagon were squared in the north oblique corners and Corridor 96 and Room 111 extended up to the square, the design would be identical to Room 44 for all intents and purposes. All of the rooms flanking the major vaulted room are lit by vault haunch clerestory windows in both suites, making their central transverse sections

almost identical (Figs. 49 and 72). Similarly, except for the areas surrounding Rooms 123 and 125, the Octagon Suite fits into the rest of the rectilinear design of the East Block just as flawlessly as the Nymphaeum Suite fits into the West Block. As Figure 4 indicates, nearly all of the ill-shaped rooms and awkward blocks of solid masonry in the East Block are tightly grouped around Rooms 123 and 125. Ultimately, the only significant feature of the Nymphaeum Suite not specifically recapitulated in the Octagon Suite is Room 45A, and, because the octagonal dome allows for a vault haunch clerestory window in the north side, the lighting function of Room 45A was not needed for Room 124 anyway. Indeed, Room 45A is a relatively awkward feature of the Nymphaeum Suite, and in the Octagon Suite Severus and Celer were probably glad to be rid of it. Finally, in Room 44's change from the compluviate atrium to the barrel vault the light source of the compluvium was lost, problematically. In the Octagon Suite, the oculus restores that light source, within the context of a vaulted covering for the room.

The patient reader will, I trust, find these facts to be incontrovertible, indeed, literally cast in concrete. Regardless of what one thinks of my masonry interpretations, the design motifs in these two suites exist as described and there are no significant motifs that I have overlooked. I emphasize the point because here, at last, I am suggesting one substantial change in our interpretation of the Esquiline Wing and of Severus and Celer. The Octagon Suite has always been recognized as extremely avant-garde, but the Nymphaeum Suite has not. That distinction demonstrates a fundamental aesthetic change between the two. The masonry, however, also demonstrates that a clever designer can make remarkably small physical changes to convert a familiar, indeed commonplace motif into something so apparently novel that the familiar motif appears to vanish entirely. The scholarly contribution made by the masonry chronology of the Esquiline Wing therefore consists not of the absolute chronology of the phases. All important motifs are of Neronian date, after all, no matter how one shades the nuances, so the position of the Esquiline Wing in the history of Roman architecture does not change. What does change is our knowledge of how Severus and Celer arrived at their design ideas.

The prevailing wisdom has been that Severus and Celer were exquisitely clever, coming up with completely new ideas, wholly unlike anything that had come before. Had that been true, Severus and Celer would be unique in the history of Roman architecture. I beg to differ. All Roman architects and all Roman buildings demonstrably make incremental, evolutionary progress over their forebears. Completely unprecedented miracles do not spring fully armed from their foreheads; that is not the Roman *modus operandi*. Heretofore, however, Severus and Celer were thought to be the exception that proved the rule. Surely, it has been thought,

this proves their success, novelty having been their goal. But the Esquiline Wing proves that that is not how they worked, even though they did ultimately arrive at a stage of extreme novelty. They, too, made incremental steps based on previous ideas and, even more impressively, made exciting new motifs out of the actual, standing previous architecture. I also insist that their success, albeit incremental, must be thought of as even more clever, not less so.

Their mastery at taking existing ideas and making new things out of them is evident in all Neronian phases and areas of the Esquiline Wing. The simplest example is the West Suite, whose design and structure are the same as a warehouse like the *porticus aemilia* on the Tiber – repeated parallel walls with longitudinal barrel vaults spanning between. The Type A and Type D projects are two more examples. The West Suite moves beyond this, barely, by making the rooms more spacious and adding a design motif, the alternation of wider and narrower rooms and the alternation of north-facing and south-facing main *sellaria*. The motif is not readily apparent on site, where one can only experience one room at a time, but is more a matter of interesting design when looking at the plan of the building. In some ways, therefore, the West Suite can be considered unsuccessful, at least as far as clever design in three dimensions is concerned, but it also points us in the direction of the architects' *modus operandi*, starting with the familiar and making something new out of it. Indeed, until the East Block was excavated in the 1930s, the Esquiline Wing was much more famous for its painting than its architecture. There simply was not enough novelty or interest in the West Block architecture to support a notion such as “The Neronian Architectural Revolution”.

The same is clearly the case with the Nymphaeum Suite, which started out as an entirely traditional villa. Only as a later modification did it become a grotto, novel for being inserted deep into the interior of the building, but in fact requiring little actual change in the original villa motif. The aesthetic change, however, was utterly fundamental, so much so that the villa motif seems to vanish entirely, even though virtually every wall remains and the phase 2 modifications left the villa plan intact. The invisibility of the original villa motif is reflected in modern scholarship, including the deeply entrenched resistance I have encountered since I first noted that villas were the source for the Nymphaeum Suite design. Yet there it is. The villa motif is obvious even to a fleeting glance at the plan, but only if one is not already certain that this plan must be of a complex barrel-vaulted grotto and one is therefore looking for something other than a villa. I emphasize the point here not to answer the scholarly resistance, but to illustrate just how successful Severus and Celer were. The physical changes were minimal; in both Rooms 44 and 45 they consisted of the thickening of the side walls and the new barrel vaults, plus

the vault haunch clerestory windows cut in the north sides of Rooms 47–49. All other Neronian phase 1 walls and vaults still stand exactly as they were originally built. The aesthetic change, however, was so fundamental that scholars have studied the Nymphaeum Suite for decades without noticing the villa design at all. This is despite the ancient literary tradition that makes clear Nero's intention that the Domus Aurea be like a typical, grand luxury villa within the city. Severus and Celer built precisely what we should have been looking for all along, and then, with the tiniest of modifications, camouflaged it almost beyond recognition. I am impressed.

The same is true in the Pentagonal Court. The actual pentagonal form is of Neronian date, so it is not correct to say that Severus and Celer inherited the Pentagonal Court from previous buildings. It is their motif, for which they are duly famous. Most of the individual features of the court are inherited from pre-Neronian buildings, however, including several of its five sides and even a portion of its grandeur and orderliness. Because we do not know how much pre-Neronian architecture stood in the interior, we do not know exactly how visionary Severus and Celer were. The oblique foundation running under the north wall of Room 80 (Sala della Volta Dorata) suggests that they had to sweep away quite a bit and perceived their design within a rather complex and disorderly pre-Neronian ensemble. The fact that we do not know all the details of the pre-Neronian structures does not alter our understanding of the Neronian architects' procedures, however. Again, they saw not only what already was, but also what new things could be made from it. The resulting pentagonal courtyard motif is so grandly appropriate for Neronian design philosophy that it is difficult to imagine that it incorporates so much pre-Neronian material. Here again, the scholarly resistance to my interpretation has been deeply entrenched, and some of the counterarguments Byzantine, in a desperate attempt to dismiss the obvious masonry evidence. The truth is in the concrete, however. I think the fact that scholars feel the urge to rail against it helps demonstrate how successful Severus and Celer were.

The Octagon Suite, then, is the icing on the cake. The fact that Severus and Celer had provided their own precedent in the revised Nymphaeum Suite helps account for the especial novelty of the Octagon Suite. The revisions in the Nymphaeum Suite were sufficient to move it aesthetically far beyond its original villa motif, so using the Nymphaeum Suite as the point of departure for the Octagon Suite sets the Octagon Suite two creative steps beyond prevailing villa design. This is undoubtedly the most important contribution that the masonry chronology of the Esquiline Wing has to make. By demonstrating that the Esquiline Wing is not all of a piece, and that the Octagon Suite is a later component, made in the wake

of lessons learned in the West Block, we refine the chronology considerably. It is not the whole Esquiline Wing that follows on the relatively timid pre-Neronian essays in the concrete medium, but only the first versions of the West Suite and Nymphaeum Suite. Their relatively conservative design makes perfect sense in that context. Even though the Octagon Suite is also Neronian, it is still two steps later than Type E, steps taken under the auspices of the most audacious patron and architects Rome ever produced. The Octagon Suite therefore belongs much later in our thinking, not in absolute chronology, but in design evolution.

This is fascinating. For instance, the most important *comparanda* for the Octagon Suite, the immediately pre-Neronian architectural tradition from which it sprung, was the Roman villa: a *trabeated* ancestor for this most famous exercise in vaulting! The pre-Neronian concrete examples cited by modern scholars, such as the Temple of Fortuna at Palestrina and even the domed baths at Baia and the Baths of Agrippa, contributed remarkably little, essentially only the concrete medium and the idea of a dome. Everything else in the Octagon Suite came from the minds of Severus and Celer, developed step-by-step on this very site. In plan, the basic motifs of the Octagon Suite started out in their minds as the features of traditional villa architecture, the compluviate atrium and its flanking *cubacula*. They then systematically replaced common features with novel ones that fit into the same locations. The barrel vault replacing the *compluvium* in Room 44 is the most straightforward example, not least because it is in the actual room that had originally been constructed according to the old, typical design. By the time the process of substitutions upon substitutions had been taken to its ultimate state in the Octagon Suite, the villa motif had all but vanished, detectable only by careful study of the plan and comparison with the Nymphaeum Suite. In the Octagon Suite it is astonishing how little there is that can be called “normal” or “common”. Every feature is novel except for two: 1) the doorways are rectangular and 2) the barrel vaults are indeed barrel vaults. The depths one must plumb to find something common in the Octagon Suite is neatly illustrated by this list. In addition, only the rectangularity of the doorways makes them qualify. In most other respects the doorways too are remarkable, including the broad proportions of the doorways, the slender corner piers between them and the long, slender flat arch lintels with the dome springing directly from them. Being rectangular is their only canonical feature. Furthermore, the novel features were assembled knowledgeably, contributing to the apparent lightness of the dome, including the vault haunch clerestories, the triangular piers penetrated by corridors, the flattened shape of the dome and its broad oculus. The design is astonishing, indeed unique. Yet it is also set onto a barely modified version of the Nymphaeum Suite plan.

In this context, then, the major contribution of my study of the Esquiline Wing's masonry chronology is that it demonstrates the architects' procedures. Looking back from the twenty-first century, the Esquiline Wing appears to have been one major Neronian step, a magnificent leap beyond the much more tentative use of concrete that had come before. It is so revolutionary that it appears to be the stuff of genius. That may well be true, but my studies indicate that this genius was tempered by careful, sequential reasoning. The ultimate result, the Octagon Suite, is therefore a massive quantum leap beyond pre-Neronian architecture because it is several steps later, steps taken systematically during the Neronian period, within the Esquiline Wing itself. That is the Neronian architectural revolution evolved in a process that we can reconstruct right on this site. Not only were Severus and Celer masters at seeing what wholly new things could be made out of existing forms, but also they could do that with their own designs. If genius is involved, this is where. Their ability to stand back and dispassionately evaluate whatever was before them is, I think, their most important trait, an extremely rare one in humanity generally. The fact that all of this took place under the stewardship of just one patron must have made the achievement very heady indeed. Nero and his architects would have been acutely aware of their ultimate achievement because they themselves could remember where it had all started; they had been there at the beginning and they themselves had taken every intermediate step.

Finally, the headiness of the Octagon Suite brings us to the one major motif of the Octagon Suite yet to be discussed, Rooms 123 and 125 and their groin vaults (this discussion is illustrated by Figs. 69, 73, 75 and 76). The contrast between these rooms and the rest of the radiating rooms is dramatic. The others, Rooms 122, 124 and 126, are all fairly typical *sellaria*, longitudinally barrel vaulted and elaborated with alcoves in their back end walls (Room 124 has a shallow apse instead, through which the cascade that descends across Corridor 92 and Room 102 enters the Octagon Suite). Their apertures are canonical when viewed from within, but they open into atypical places, the windows being vault haunch clerestories opening onto the haunch of the dome and the doorways opening into the interior of Room 128 below.

Rooms 123 and 125 are similar in those features, but Severus and Celer also knew that the oblique orientation would give greater latitude for complexity in these rooms. The complexity that we see in their plans is purposeful, because it would have been easy to put more canonical *sellaria* on the oblique sides of the octagon and simply leave much larger spandrels behind them on either side. The challenge was to exploit the available space to make a splashy design, while keeping the resulting greater awkwardness segregated outside the Octagon Suite.

The architects' success is obvious in Rooms 123 and 125, with many novel and fancy motifs concentrated in them. They are by far the most complex rooms in the Esquiline Wing. They are cruciform in plan, with a slightly elevated groin vault over the central rectangle and barrel vaulted rectangular alcoves forming the cross arms. In three dimensions these rooms are even more complicated than their plans might suggest because their vaulting is two tiered, with a segmental intermediate vault forming a gallery in each alcove. Originally all four cross arms had the lower level segmental vaults, including the sides facing Room 128, between the *sellarium* doors and clerestory windows. The inner vaults were removed, leaving a scar in the walls above the side doors (on the left side of the room in Fig. 73; Fig. 76 shows the scar in Room 123, above the small doorway at the right). The rooms had been decorated before these vaults were removed, so the scars were covered with a coarse plaster, clearly different from the rest of the room decoration. The scars also retain the imbedded parts of the voussoir tiles from the segmental relieving arches that originally solidified the exposed edge of the removed vault (Fig. 73).

The removal of these intermediate vaults was the only substantial modification in the entire Octagon Suite. Because it took place after the rooms were decorated it is not a *pentimento* in the strict sense of the word, but a revision of a completed structure. As originally designed, most of the light from the vault haunch clerestory was absorbed uselessly by the top surface of the intermediate vault, so deleting the intermediate vault allowed the light to reach the whole floor of the room. This was undoubtedly intended for the benefit of an emperor in residence, not the kind of modification expected if the Octagon Suite were being converted for lowly reuse. It is therefore either Neronian phase 2 or Othonian.

The upper vaults in Rooms 123 and 125 are equally interesting, and the groin vaults are truly remarkable. The system is illustrated in Figures 73 and 76. There are completely hemicylindrical barrel vaults over the arms of the cross plan, with relieving arches to solidify their exposed ends. The central groin vault springs from the extrados of these relieving arches. The relieving arches overlap in the corners, however, cutting each other off, so the extrados of each is segmental rather than completely semicircular. Furthermore, the longitudinal alcoves are of considerably greater span than the transverse alcoves, so the segmental tops of their relieving arches are of different radii as well. The central groin vaults, then, spring from this shape, making their design complex, of compound radii and segmental in all directions. Furthermore, Giovannoni's cross-section shows the vault rising somewhat in the middle, making the shape even more complex.²³³ Given that no previous example of the groin vault exists in Roman concrete, these examples demonstrate astonishing confidence on the part of both the architects and the masons.

The issue of the groin vaults must be considered in a number of different ways. One of these is the fact that they are unnecessary in this location. A perfectly good system for vaulting a space of this shape already existed in the Roman concrete tradition. This is the system found, for instance, in the market hall in Ferentino and the *tabularium* in Rome, where the side rooms had barrel vaults transverse to the main room, with their crowns below the springing level of the main barrel vault. This system would have served admirably in Rooms 123 and 125 as well, with no adverse effect on the lighting, the available floor space or the structural integrity. Instead, Severus and Celer did something brand new. The groin vaults let the side alcove spaces carry right to the top of the room, making room for the inserted upper tiers.

Like the groin vaults, the upper tiers add virtually nothing to the utility of the rooms, at least as far as human activity was concerned. There is no way to get up to them and if one could do so, the floors would have been too small to be of much use. Their utility was only aesthetic. That, of course, was also of value from Nero's point of view. The upper tiers could have held *objets*, such as his notorious collection of sculpture purloined throughout the empire, and the architectonic shapes contribute to the overall artiness of the rooms. Rooms 123 and 125, therefore, were dazzling, enough so that one had no reason to think about the chaos they create in surrounding areas. From Nero's point of view, therefore, they must be regarded as wholly successful. In this respect, they are a microcosm of the whole Octagon Suite, but they are also far too impractical for later architects to mimic.

2. THE OCTAGON SUITE GROIN VAULTS AND THE GENESIS OF THE IMPERIAL BATH TYPE

Because the Esquiline Wing is well preserved and confidently dated it is crucial to our understanding of Imperial Roman architecture. Revising our understanding of the Esquiline Wing therefore requires reevaluation of other buildings and, perhaps, vice versa. Comparing the Esquiline Wing to the rest of the original corpus of Neronian architecture would be an obvious first step, but also impossible because the rest of the Neronian corpus is lost. One possible exception, however, is the Baths of Nero, the topic of this essay.²³⁴ This is not to say that the Baths of Nero are well preserved or that scholars agree on their interpretation. The challenge the Baths of Nero pose consists both of reconstructing them, to the limited extent the available evidence allows, and then interpreting the baths' relationship to the

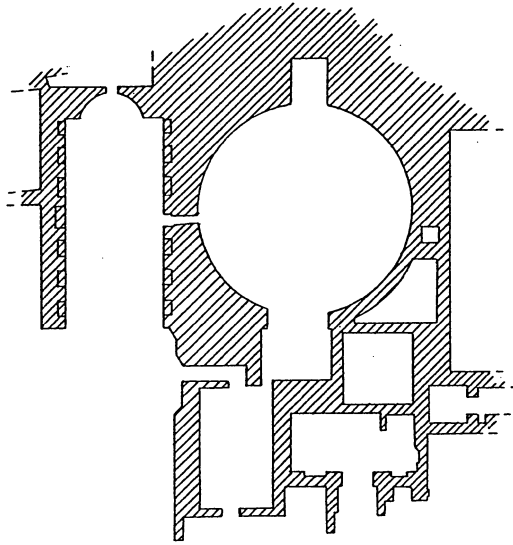
contemporary Esquiline Wing. To do so, I must first address the history of Imperial bath design in the city of Rome.

My study of the masonry chronology in the Esquiline Wing has already demonstrated that the design of the Octagon Suite was clever, yet also based on contemporary motifs, many of which were translated from the Nymphaeum Suite. The octagonal shape of the dome is unprecedented, but also explicable in this context. The motif of a round dome was commonplace in pre-Neronian bath buildings, a luxurious setting that would recommend the motif to Nero. Changing the existing round dome motif into an octagon is not inherently revolutionary either, because of the needs in the Esquiline Wing project itself. The Octagon Suite was basically a recapitulation of the Nymphaeum Suite design, into which Severus and Celer inserted a dome. The rectilinear setting was not inherently compatible with a round feature. The round dome motif was therefore tailored in the obvious way, changed from round to octagonal shape, giving the dome two straight, parallel “sides” (on the east and west) and allowing the south corners to be squared as well, by Rooms 128A and 128B. By doing so Severus and Celer made the dome motif fit perfectly into the overall Nymphaeum Suite plan, except for the angled northeast and northwest sides. Predictably, therefore, the design chaos that results from the octagonal shape is isolated in the northeast and northwest, in the areas surrounding Rooms 123 and 125.

Thus, the dome motif was inserted as neatly as it could be, yet the fact that it also creates all of the design chaos in the East Block illuminates the essential incompatibility of the radial dome and the rectilinear scheme inherited from the Nymphaeum Suite. The combination of motifs in the Octagon Suite is therefore ingenious in some ways and awkward in others, bespeaking clever architects forcing together disparate existing features to make something wholly new. Because this also is apparently the design process for many other parts of the Esquiline Wing, including the Pentagonal Court, the Esquiline Wing appears to have been designed according to consistent aesthetic personae.

The Early Rotunda at Baia

The dome motif is worth pursuing in greater detail. It is prominent – indeed central – in some of the grander pre-Neronian bath complexes, notably in the rotunda at Baia commonly called the “temple of Mercury” and the Baths of Agrippa in Rome (Figs. 80 and 81). The rotunda at Baia (which will not be called the “temple of Mercury” hereafter) is, in fact, part of the sprawling geothermal bathing spa to



80. The early rotunda at Baia (so-called Temple of Mercury): Schematic plan.

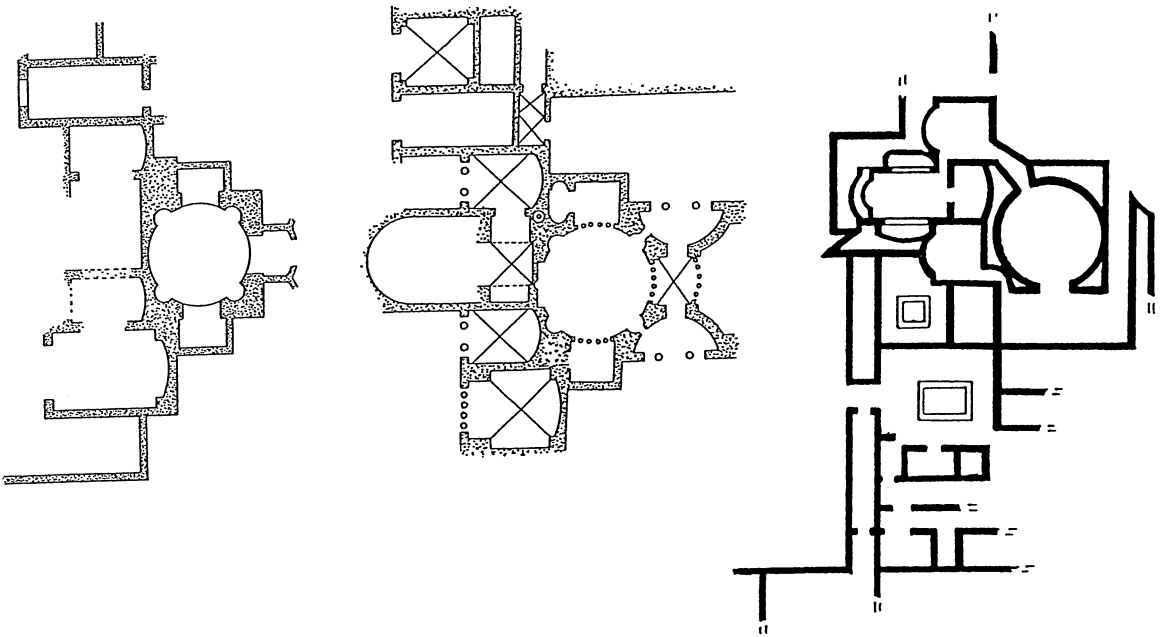
which Baia was devoted. The rotunda was therefore supported by a number of other rooms for different bathing functions, plus beaches nearby and other bathing establishments throughout the city. I consider the rotunda in isolation not because it was used in isolation, but because it is an isolated design exercise, adjacent to the other rooms around it, but little affected by them.

The rotunda is much larger than the rectangular adjacent rooms, which were set in around the rotunda unceremoniously, giving a bather easy access from room to room, but leaving large spandrels of solid masonry or irregular rooms around the rotunda. The design does have some harmonious features, albeit of a simple sort. There is an obvious main axis passing through the rotunda, defined at either end by a barrel-vaulted passageway to a subsidiary room. The bather would therefore experience the rotunda and the two rooms defining its main axis as a fairly regular, orderly ensemble. The fact that they are surrounded by awkwardness is undetectable from within. Overall, this is a crude design and an inefficient use of space, but Baia was a spacious setting, so efficiency was not at a premium. More important, from the point of view of the bather, the whole complex worked well. The rotunda only housed one activity, no doubt defined by whatever water temperature it provided. Access to the rotunda was clear enough from the adjacent rooms and court. There was one antechamber between the courtyard and the room at the east end of the rotunda axis. A bather stepping from the courtyard

into the antechamber would be able to see directly into the rotunda and would be in no doubt as to how to proceed. The awkward rooms to the north of the rotunda may or may not have been related to the bathing activities of the rotunda itself because there is no direct access between them. The fact that they are crudely nestled around the rotunda does provide another motif, however, because the same arrangement recurs in the Baths of Agrippa in Rome.

The Baths of Agrippa

The Baths of Agrippa were a much more challenging design exercise than the rotunda at Baia. The rotunda at Baia was in a much larger thermal resort, so the rotunda itself did not need to accommodate all features of the elaborate Roman bathing process. The Baths of Agrippa had no such support. They had to accommodate all bathing functions in one building and did so for the much denser population of Rome.²³⁵ The Baths of Agrippa therefore had to be much more complex than the rotunda ensemble at Baia and they had to be much bigger. The size of the building was also important from the point of view of the patrons, Agrippa and, implicitly, Augustus. It was more than just a public amenity, but also a beneficence, a monument to the glory of Augustus. This monumental function required that the Baths of Agrippa be grand. Grand is a difficult term, of course; it means more than “big”, including some pretensions of “special”. Simply making a big version of the existing republican style bath would have been sufficient from a practical standpoint (the central baths at Pompeii are one such example), but would not have been special from a symbolic standpoint. It is well known that Augustus did not demand salient novelty in most of his grand public architecture, preferring traditional trabeated forms for iconographic reasons, but baths are an exception even to the attitudes of Augustus. They are not a place of puritanical self-denial, but of relaxation, healthful exercise, hygiene and, most important in the public eye, luxury. This was not a setting where Augustus could impart a moral lesson via cold water; the Romans would simply have bathed somewhere more congenial, while harboring uncharitable thoughts about Augustus. Luxury, in short, made Roman bath buildings a special kind of design challenge, a setting where novelty was perfectly acceptable, indeed valuable. The need for something both grand and novel therefore put the architects of the Baths of Agrippa into a situation similar to what Severus and Celer would face later with the Baths of Nero.²³⁶ Like Severus and Celer, the architects of the Baths of Agrippa selected the most novel ideas known to them, especially the contemporary rotunda motif



81. Baths of Agrippa, Rome. L–R: Field sketches by Baldassare Peruzzi and Palladio, the author's reconstruction based on the Severan Marble Plan.

from Baia. Unlike Severus and Celer, however, novelty did not come naturally to them. All in all I regard the Baths of Agrippa as a failure, as I hope the following discussion demonstrates.

Comparing Baia with the Baths of Agrippa is not a straightforward matter, however. The Early rotunda at Baia still stands, so its forms and dimensions are known, but the Baths of Agrippa are fragmentary. The standing remains consist largely of the north half of the central rotunda, little else being preserved or accessible. There are two additional sources of information. First, more recent artists and architects drew a number of plans and sketches when the remains were less encumbered, including Peruzzi and Palladio in the Renaissance and Piranesi in the eighteenth century. These drawings are problematic, however, in that the Renaissance architects took considerable liberties with the information. There are two types of Renaissance drawings, the fleshed-out published reconstructions, which are close to pure fantasy, and the apparently more reliable field drawings. The latter appear to be closer to the remains because they were not intended for publication, but merely record what the artist actually found (or thought he did). The simplest drawings of Peruzzi and Palladio appear in Figure 81.²³⁷ Even these, however,

contain obvious reconstructions, detectable in the areas where the two are in conflict with each other. The challenge faced by modern scholars, therefore, is to strip away the reconstructions to isolate the genuine features. Huelsen's reconstruction of the Baths of Agrippa is such an exercise, also the source for the illustrations reproduced here.²³⁸ Numerous spurious features have been swept away, primarily from Palladio's version, including the groin vaults, the addorsed apses next to the rotunda and the plunge baths that Palladio reconstructs in the corners of the rotunda.

The second main source of evidence for the Baths of Agrippa is a fragment of the Severan Marble Plan of Rome (the famous *Forma Urbis Romae*), which is identifiable because the fragment retains much of the inscription. This, too, appears in Figure 81.²³⁹ The Marble Plan is rather schematic, however, leaving out key items such as doorways. The sketch plans of Palladio and Peruzzi might tell us how to flesh out the extant remains, but by comparing the three plans we can see that in fact the later drawings tell us little. The areas where they add features not found on the Marble Plan are generally the same areas where they conflict with each other, areas where the evidence apparently did not exist and was reconstructed imaginatively by the Renaissance architects. Peruzzi's less-detailed plan probably gives a better indication of what little was preserved in the Renaissance. By eliminating the areas of conflict with Palladio, *mirabile dictu*, Peruzzi's plan reverts fairly closely to the Marble Plan version. We can eliminate the solid spandrels surrounding the dome (the niches on the diagonal axes may be valid, however) and any details to the north of the dome. In the latter case, not only do the two Renaissance architects disagree with each other, but also the Marble Plan indicates a completely different configuration that would preclude either Renaissance version.

The simple version of the plan in Figure 81 is confirmed by an engraving by Piranesi.²⁴⁰ Both the engraving and the Marble Plan show the rotunda as round on both the inside and the outside, lacking the solid corner spandrels reconstructed in the Renaissance plans. The extant remains have the round exterior at upper levels and Piranesi's engraving confirms that this shape reached down to the ground. Piranesi also indicates that the area surrounding the rotunda was flat earth, with no standing remains at all.

This constitutes fair warning, therefore: the simplest plans of both Peruzzi and Palladio are not measured field studies at all, but early essays on the artists' part to flesh out field notes no longer preserved. They tell us little more about the Baths of Agrippa than the fact of the rotunda. It appears that the Renaissance architects were not content with their limited field data and reconstructed familiar motifs where the evidence was incomplete. The motif of the round dome set into a

square plan via solid spandrels was well known to them, being typical of Republican *frigidaria* and found in both the Baths of Trajan and the Baths of Trajan Decius. The remains of both of these later baths were accessible, and the Renaissance architects are known to have studied them. Their motivation is easy to understand, but this also means that their plans of the Baths of Agrippa are of little scholarly value.

In sum, my lightly fleshed-out tracing of the Severan marble plan (Fig. 81) is probably the most detailed and accurate plan of the Baths of Agrippa that can possibly be reconstructed from the available evidence. I therefore do not use Huelsen's commonly reproduced and more elaborate reconstruction because I think it is misleading. His thinking was agglomerative; if he found a motif in any source he included it, picking his favorite motif when sources disagreed. The fact that the sources had motifs that are incompatible with each other, however, should have warned him that in fact there was no information for that area at all. That should not be regarded as license to invent, but in fact Huelsen reconstructs many rooms whose existence is not credible and he indicates groin vaults profiligately throughout. Piranesi's engraving shows that the rooms did not exist, let alone their vaults. The addorsed apses next to the rotunda come from Palladio, but are impossible in both Peruzzi's plan and the Marble Plan. Huelsen also includes a second rotunda beyond the addorsed apses, which is entirely imaginative, loosely based on a number of mutually incompatible fantasy reconstructions by Palladio.

Even though the simplified plan of the Baths of Agrippa is much less detailed than Huelsen's, it is not only more reliable, but also more useful in analyzing the building. Most important, we must ignore the core motif in the plans of Peruzzi, Palladio and Huelsen, which is also the core motif from the rotunda at Baia, that is, the rotunda with an axis defined by a pair of axial rooms. The simplified plan of the Baths of Agrippa lacks this feature, and on the Marble Plan it is not possible. Instead, the simplified plan of the Baths of Agrippa indicates a different relationship between the two sites. In both cases the chaotic features are similar; rectangular rooms are tucked in around the rotunda awkwardly. The rotunda itself is both a focal point and, apparently, an isolated area of architectural harmony within the surrounding chaos, with the chaos not detectable from inside the rotunda.

If the rotunda in the Baths of Agrippa had any axial emphasis at all, it was defined only by the single doorway and niches on the diagonal. Although this is less grand than the more emphatically axial design at Baia, it is also identical to the normal treatment of the rotunda motif in contemporary Republican style baths. The only obvious difference between the rotunda in the Baths of Agrippa and the round

frigidaria of the public baths in Pompeii is the larger size of the Baths of Agrippa. The motif is otherwise normal in every respect; Baia is ignored. Indeed, given Agrippa's and Augustus's political and moral message, a direct translation of the latest designs from the notorious Baia might have been unbearable to them. Instead, it appears that the Baths of Agrippa are close in essence to the Republican style bath, aggrandized with the extra large rotunda. Unfortunately, the large rotunda and the Republican bath type were not compatible. They had to be forced together and did not fit well.²⁴¹

Even so, the large rotunda must be thought of as following from the rotunda at Baia. The fact that the motif appeared there had two advantages for Agrippa's architects: its shape was recognized at the time as an appropriate motif for a bath building and its scale was definitely novel, as well as being appropriate for the crowd size and Augustus's desire for monumentality. The difference between this and the traditional Republican bath is that the Republican architect started with a sequenced of adjacent simple rectangular spaces for the *calidarium*, *tepidarium* and *apodyterium*. These, plus a rectilinear *palaestra* and *piscina*, could all be fit together easily. Any square parcel of leftover space could be used for the tiny round *frigidarium*; the round shape was subservient to the rectangular shapes. When the rotunda is expanded to become a huge core motif, the architect faces the much greater challenge of fitting numerous smaller rectangular rooms around it. In Baia, this was not a problem because there was plenty of space and the rectangular rooms did not have to fit together with the rotunda very well. The Baths of Agrippa, in contrast, needed to be a tighter, more coherent grouping. These factors are not compatible with each other, and the Baths of Agrippa suffer as a result.

On the other hand, the Baths of Agrippa established the large, central dome as a motif in monumental Roman architecture. Previous to the Baths of Agrippa, the dome was a rarity, most commonly found as a small *frigidarium* imbedded within Republican style baths. In this context it is certainly not the stuff of monumentality, and not freestanding at all. The rotunda at Baia can be thought of as an enlarged version of this motif, inconspicuous from the outside, imbedded in a hillside terrace and surrounded by solid spandrels and other rooms. The most monumental freestanding domed rotunda prior to the Baths of Agrippa was the uppermost inner sanctum in the Sanctuary of Fortuna at Palestrina and there, too, the dome was virtually invisible behind the *odeion*. The Baths of Agrippa differ in that the large domed rotunda would have towered over the smaller surrounding rooms, making it prominent. Because the Baths of Agrippa were intended as a monument, they define the domed rotunda as a monumental motif. At the same

time, they also define elaborate structures in concrete as fine architecture, a clear prefiguration of the “Neronian architectural revolution”.

Severus and Celer undoubtedly had these things in mind when they used the dome motif in the Octagon Suite. The steps that they took are easy to reconstruct: 1) They started with the Nymphaeum Suite design, not least because that was the context where they had just discovered the vault haunch clerestory motif, but also because if the Octagon Suite were laid out with a similar plan to the Nymphaeum Suite, it could house the same activities. 2) They asked themselves what they could do to make the Nymphaeum Suite design more fancy. 3) The dome motif sprung to mind, recognizable as the most novel and monumental motif at the time.²⁴² 4) The dome motif was tailored to fit into the rectilinear Nymphaeum Suite design. This was their greatest challenge. The aesthetic and structural incompatibilities between a dome on a rotunda, the Nymphaeum Suite plan and the vault haunch clerestory window motif are obvious. Undoubtedly a great deal of thought went into reconciling them. The octagonal plan is the most obvious result, retaining most of the square plan shape of Room 44, but tailored to support a radially shaped vault. Fudging a square into an octagon was not difficult and the Roman concrete medium allowed the octagonal dome to blend easily into a round form. The most important innovation in the Octagon Suite was structural, in the form of the ingenious triangular piers in the corners and the eight-spoked structural system at haunch level above the dome.

The rotunda at Baia and the Baths of Agrippa, ironically, also contributed their chaotic features to the Esquiline Wing. In both cases, the relationship between the central rotunda and surrounding subsidiary rooms is handled awkwardly and with little creativity. Except for the rooms at either end of the axes through the rotunda at Baia, the extra rooms are simply nestled in around the rotunda wherever there was room for them, resulting in a chaotic arrangement overall. This is even more obvious in the Baths of Agrippa, where it is impossible even to surmise what function was served by any given room. The rooms relate to each other so awkwardly that it is impossible to tell how one might have progressed through them; probably this was not even clear to a bather in the actual building. The haphazard subsidiary rooms obliterate whatever sense of regularity an axis through the rotunda might have created. So, for all their monumental scale, the Baths of Agrippa were apparently not a particularly good place to bathe, certainly not a harmonious design, and Severus and Celer knew that.²⁴³

Although this awkwardness may have made it easier for Severus and Celer to include awkwardness in the Octagon Suite (it was already a “fair game” design

motif in monumental architecture), they should at least be given credit for how practically they dealt with it. They were aware that the irregular designs of the earlier baths were inherently unsatisfactory and carefully segregated the spandrels and odd rooms into areas Nero would never see.

The Baths of Nero

Severus and Celer undoubtedly considered all of these factors carefully when Nero directed them to make a grand public bath design of their own. They will have scrutinized the Baths of Agrippa to decide what could be usefully retained and what must be improved. Ancient literature gives a good sense of their success; the Baths of Nero were fawningly praised, whereas, for all intents and purposes, the Baths of Agrippa were not. This is true even for Martial, during the Flavian period, when Nero was a pariah and Augustus was revered. “What could be worse than Nero? What could be better than Nero’s baths?”²⁴⁴ Even if we knew nothing at all of the design of the Baths of Nero, Martial alone is enough to prove that they were a huge improvement over the Baths of Agrippa.

The challenge faced by modern scholars is reconstructing the design of the Baths of Nero. Part of the problem consists of the fact that the Baths of Nero were revised in A.D. 226–7 by Alexander Severus, after which they were called the *Thermae Neronianae Alexandrinae*.²⁴⁵ The physical remains are therefore problematic because we must sort out how significantly they were changed during the Severan revisions. It is only the original Neronian design that is significant for the Esquiline Wing.

Unfortunately, Martial exemplifies the literature on the pre-Severan Baths of Nero, obviously evocative, but not descriptive. Unlike the *Domus Aurea*,²⁴⁶ the Baths of Nero were not suitable for Flavian propaganda. The Baths of Nero were not the focus of public loathing, in fact quite the opposite; they were a much appreciated amenity that the Roman people knew from the start had been intended for them. Reminding the Romans of the Baths of Nero would only have made Nero look good. Not surprisingly, therefore, later authors focus on the *Domus Aurea*, invariably couched in critical terms, but the Baths of Nero are left untouched. Thus, specific features of the *Domus Aurea* are listed, intended as a catalogue of outrages. Modern scholars are not outraged, but are glad for the list of features. We have no such thing for the Baths of Nero, which are mentioned by ancient authors only obliquely.²⁴⁷ There are innumerable ways in which the Baths of Nero could deserve Martial’s praise, therefore, but he gave no hint of what he had in mind. They could have been huge, clever in design, exquisitely decorated, provided with

unprecedented special amenities, free of admission charge, better heated or lit than existing baths etc., but not one word appears in ancient literature about any of these possibilities. In contrast, Nero's own private baths in the Domus Aurea were described, albeit vaguely, including the different types of water they provided.

The date for the Baths of Nero is known with some confidence, between A.D. 60 and 64. The chronology cannot be determined precisely because there were two phenomena, the Gymnasium of Nero and the Baths of Nero, whose relationship to each other is debated.²⁴⁸ The gymnasium is specifically dated to 62. The only specific date we have for the baths is 64, but the reference is of late antique date and of dubious value. The most likely date is indicated by Suetonius in a paragraph describing Nero's establishment of quinquennial games, datable to A.D. 60:²⁴⁹ "at the same time [Nero] dedicated his baths and gymnasium, supplying every member of the senatorial and equestrian orders with oil". This seems to indicate that the baths and gymnasium were different things, or else Suetonius would not have needed to name both of them in one sentence, but they must also have been linked to each other. The most important factor, however, is not the specific date of the Baths of Nero, but their relationship to the great fire of A.D. 64. This is clear; the literary sources consistently indicate that the fire came after the baths. The Baths of Nero were therefore contemporary with Neronian phase 1 in the Esquiline Wing, and they predate the Octagon Suite of phase 2.

This chronology makes the Baths of Nero particularly intriguing. They represent a colossal public success for Severus and Celer. The public adulation would have confirmed in their minds that the successful design features in the Baths of Nero were good ideas. It is a simple point, but in the context of the Octagon Suite it is also important. My study of the masonry chronology of the Esquiline Wing indicates that Severus and Celer cobbled together all the latest motifs in the Octagon Suite. In that context, inevitably, the Baths of Nero must have been tapped for novel or successful ideas too. That is, any motif that was used to correct problems in the Baths of Agrippa was necessarily novel (at least later than Augustus) and saliently successful, by popular acclaim. Those motifs, whatever they were, would be appealing candidates for the Octagon Suite, if Severus and Celer could think of ways to insert them into the design.

This is where the groin vault motif becomes intriguing. I have already accounted for all other major features in the Octagon Suite. The groin vault is the one exception, and its appearance in the Octagon Suite is difficult to explain. It is at the core of the most awkward areas around Rooms 123 and 125, indeed the groin vault is largely the cause of the awkwardness. At the same time, the groin vaults serve no practical purpose, either structural or spatial. Unlike any other feature in

the Octagon Suite, the groin vault appears to have been used exclusively for the sake of using it.

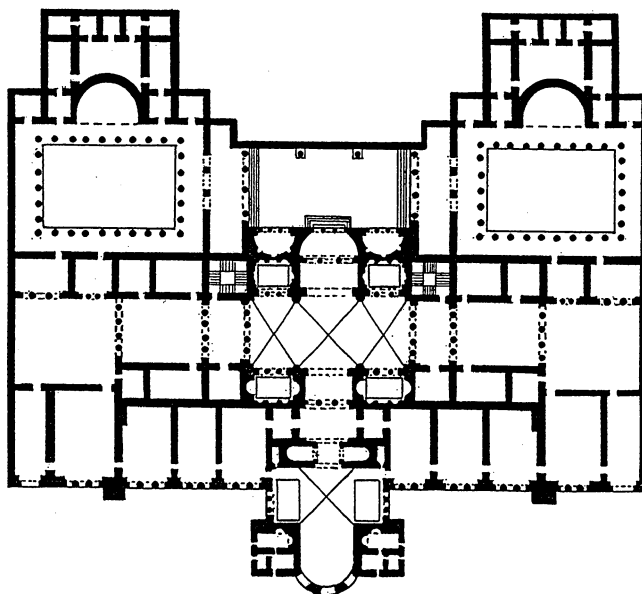
My thesis, then, is that the groin vault was a crucial motif in the Baths of Nero, that it was used with great success there, and that this success is why Severus and Celer insisted on incorporating it in the Octagon Suite, even though they had no structural or aesthetic need for it, nor even a good place to put it. Conversely, the fact that they forced a couple of useless groin vaults into the design anyway suggests that they used the groin vault not because it was useful but because it was novel. We must therefore seek another source for it, which, I think, must have been the Baths of Nero.

The location of the Baths of Nero in the Campus Martius is known, indicated by one standing remnant, numerous underground foundations and a carefully measured plan by Palladio.²⁵⁰ My reconstructed plan of the Baths of Nero (Fig. 82) is based primarily on Palladio too, because in the sixteenth century more of the building remained standing and accessible than is the case today. On the other hand, Palladio probably worked more from foundations than standing walls, a conclusion supported by the fact that the walls in his plan are rather thick, and he includes few doors or other features that would only manifest themselves about foundation level. Similarly, in many instances Roman engineers built continuous wall-like foundations to support colonnades, so it is not necessarily certain whether the designers intended a wall or colonnade above a given foundation.

The available evidence for the Baths of Nero leaves two key questions concerning the design: the accuracy of Palladio's plan and the extent to which it represents the original Neronian design. The remains measured by Palladio were from the Severan version of the baths. He was not able to distinguish between Severan and Neronian features, but merely indicated where he found remains of any sort.²⁵¹ If there are features original to the Severan period, therefore, they appear in Palladio's plan. The question, then, is how much of the design is Severan and how much, if any, is Neronian.

These questions are important because the design of the Baths of Nero is easily recognized as an example of the Imperial Bath Type. If the design is of Neronian origin, then the Baths of Nero are the earliest example of the type and therefore very important indeed. If, on the other hand, the design is of Severan date, then the baths are merely another example of a design type that was centuries old by the Severan period. Furthermore, for that time period the design was not a very inventive example of the Imperial bath type, and thus of little significance.

Giuseppina Ghini has confirmed the accuracy of Palladio's plan by studying the foundation remnants still accessible in basements throughout the area.²⁵² Ghini



82. Baths of Nero, Rome: The author's reconstruction, based on Palladio and Ghini.

made an accurate plan of the remains and superimposed them on Palladio's plan. Except for the fact that Palladio's surveying errors set his plan some 10 meters out of place (which Ghini corrected), the two match flawlessly. Ghini's study therefore confirms that Palladio's plan is accurate. This is crucial. As noted under the rubric of the Baths of Agrippa, some of Palladio's reconstructions are extremely fanciful; he is not inherently credible and the reliability of any of his plans must be proved. Ghini proves the reliability of Palladio's plan for the Baths of Nero.

The question of whether the remains represent Neronian or Severan design is more challenging. A precocious Neronian date for the design would be entirely in keeping with Nero and his architects, of course, but scholars tend to be more comfortable with a Severan date not only for revisions, but for the whole Imperial bath motif. That is, Alexander Severus's architects are usually thought not to have repaired the Baths of Nero, but to have replaced it completely. If that were so, the Baths of Nero would not be revolutionary at all, making the interpretation of the design very simple. Furthermore, Ghini appears to confirm a Severan date because all of the currently accessible foundation remnants have Severan-style facing.²⁵³

I argue otherwise, however. I do not deny that the remains are faced with Severan bricks, but that does not mean that the design, or even the concrete cores of the walls, were of Severan date. Refacing old walls was a commonplace technique for

the Romans, and even if no Neronian walls stood in the Severan period, reusing Neronian foundations would have given the Severan baths the same basic layout and proportions as the original Neronian design. Based on the layout and proportions, I think it is more likely that the Baths of Nero represent Neronian design and structure, refaced and revised under Alexander Severus, with only minor design changes.²⁵⁴ The fact that the name of the baths commonly retained reference to Nero – *Thermae Neronianae Alexandrinae* – seems to confirm the point.

Janet Delaine's recent work on the proportional system in the Baths of Caracalla sheds some light on the Baths of Nero as well.²⁵⁵ The Baths of Caracalla represent fully mature Imperial bath design practice, as it had evolved by the Severan period, including a modular system of proportions based on a 200-foot square. Similar proportional systems were used in the other great Imperial baths in Rome, starting with the Baths of Trajan.²⁵⁶ She suggests, credibly, that the Baths of Trajan became the proportional paradigm for subsequent imperial type baths, so with the Baths of Trajan we may think of the Imperial bath type as having reached maturity. The later Baths of Caracalla and Baths of Diocletian added little to the paradigm.

This is important for the Baths of Nero because they do not conform to the later modular and proportional systems. Delaine suggests that the proportions were deliberately archaizing, that is, that the baths were of Severan design, but were designed with archaic proportions to create a nostalgic link with the earlier Baths of Nero. The motivation would be reverence for the past, a kind of architectural *mos maiorum*, similar to Hadrian retaining the wording of Agrippa's inscription on the Pantheon.

I do not find this interpretation convincing. The most salient objection is the fact that the room proportions are only different in nuance, while the overall proportions of the complex can only be seen in plan, not in situ. In all large Imperial style baths the rooms and courtyards are all vast rectangles with high vaults, and the exact room proportions are not detectable without careful measuring and detailed analysis. I say that with confidence because modern scholars, too, have been unaware of the archaic proportional system, despite studying the building much more carefully than a Roman bather ever would. Until Delaine's careful work on the Baths of Caracalla, scholars had no idea that there was a discrepancy between the proportional systems of the Baths of Nero and the later Imperial baths. A visitor to any of the Imperial baths could not possibly have noticed the proportional differences. I do not deny that the Baths of Nero are based on an early proportional system, but I do not think they are an intentional archaism on the part of a Severan architect. If the Baths of Nero were intended as a nostalgic reference to the past, that could have been more effectively expressed in the decoration. The

proportions of the Baths of Nero must be a remnant from the original Neronian design.

Furthermore, Alexander Severus inherited the Baths of Caracalla not only as a building, but also as an incomplete construction project. His architects therefore certainly knew every detail of the Baths of Caracalla, that is, they knew every detail of contemporary Imperial bath design.²⁵⁷ The Baths of Caracalla demonstrate that it was a successful design type, confirmed by the fact that Diocletian retained the same basic features and proportional systems. If Alexander Severus's architects built the *Thermae Neronianae Alexandrinae* completely from scratch, they had every reason to retain the form of the Baths of Caracalla; from Trajan on, there was a "correct" way to build a grand Imperial bath in Rome. The Baths of Nero were not that "correct" way. In this context, building the *Thermae Neronianae Alexandrinae* according to obsolete design principles is improbable.

A much more likely explanation is that the original Baths of Nero contributed the basic design to the later *Thermae Neronianae Alexandrinae*. There must have been standing Neronian remains to constrain the Severan architects. Whether the Neronian contribution consisted only of reused foundations, concrete wall cores or standing walls and vaults is immaterial; any of those would have been enough to make the Severan building conform to the Neronian design. Because the known plan of the Baths of Nero does not conform to Severan standards, I posit that the Severan revisions consist of facing and decoration, and possibly of vaulting, but not of the fundamental design.

This thesis can also be tested via comparison with other public bath buildings, isolating the features that made the Baths of Nero different from any earlier bath design. Then the Baths of Nero can be compared with the rest of the history of Imperial bath design. There are key design features apparently first found in the Baths of Nero and then used in an evolving fashion in later Imperial baths. This analysis establishes an evolutionary context into which the known design of the Baths of Nero can be fit. The design makes good sense at the beginning of the evolution, under Nero, but not at the end during the Severan period.

This is also where the groin vault motif becomes important. The Baths of Nero are centered on the *frigidarium*, a huge rectangular room covered by three groin vaults (Fig. 82).²⁵⁸ In this setting the groin vaults are exploited perfectly.²⁵⁹ The groin vault offers two advantages over the barrel vault. First, there is the fact that groin-vaulted squares or rectangles can be set next to each other in a modular system, with their vaults contiguous with each other along either axis. Large, rectangular spaces, such as this *frigidarium*, can therefore be easily covered by a number of adjacent groin vaults. Second, because the structural system is focused

in the corners of the groin vault, the sides of the square or rectangle are not load bearing and can therefore be opened up. The most common way this feature is exploited is by having groin vaults project above the prevailing roof level of a building to form a true clerestory. At ground level, the fact that the groin vaults bear down only in the corners makes it possible to open the main axes into adjacent spaces, as well as to set the four plunge baths in the corners of the *frigidarium*.²⁶⁰ This is precisely how groin vaults are used in the *frigidarium* of the Baths of Nero and, ultimately, in the *frigidaria* of all subsequent Imperial type baths.

Certainly the use of three huge groin vaults in the *frigidarium* of the Baths of Nero was a triumphant success. More important, the advantages of using groin vaults in the *frigidarium* are also precisely the improvements needed to solve the problems inherent in the Baths of Agrippa. That is, if Severus and Celer were looking at the Baths of Agrippa and asking themselves how they could improve on it, the groin-vaulted *frigidarium* would answer those questions. The spaciousness is obvious. The groin-vaulted *frigidarium* was much better lit than any known previous bath room, making the core of the Baths of Nero a splendid comfortable centerpiece. The contrast with the rotunda in the Baths of Agrippa must have been stark.

Furthermore, and most important, the spectacular design of the *frigidarium* in the Baths of Nero did not come at the expense of awkwardness in the rest of the complex. Instead, the three groin vaults established a simple rectangular shape for the *frigidarium*, around which the rectangular subsidiary rooms fit flawlessly. The design chaos of the early rotunda at Baia and the Baths of Agrippa simply does not exist in the Baths of Nero; Nero's *frigidarium* is not surrounded by irregular spandrels or weirdly shaped rooms of any kind.

Reconstructing the rest of the design is easy, albeit imperfect. It is not clear what flanked the *frigidarium* on either side,²⁶¹ but its rectangular shape established two obvious crossing axes that served as a design armature for the whole complex. The layout was orderly and symmetrical, and the design of the *frigidarium* made these facts obvious at a glance. That, in turn, made the building easy for a bather to navigate. Its axis of symmetry was patent and all the main bathing rooms were set along it, in due order, with the *calidarium* at the south end.

Yegül²⁶² criticizes the design of the *calidarium*, suggesting that it is awkward and therefore primitive, original to the Neronian phase. This is plausible, but more can be said about the design. Notably, the same basic design recurs in the Baths of Trajan and the Baths of Diocletian, albeit in more spacious and more harmoniously proportioned versions, while the *calidarium* in the Baths of Titus is much more awkward. The *calidarium* design from the Baths of Nero must have

worked, or else the designers of the Baths of Trajan and the Baths of Diocletian would not have copied it. It takes the splendid *calidarium* of the Baths of Caracalla to make the *calidarium* of the Baths of Nero look bad. My reconstruction of the pools in Nero's *calidarium* (Fig. 82) is influenced by typical *calidaria* of Pompeian republican period baths. The rectangular room with an elevated basin in the apse is common. There were also commonly rectangular soaking baths at the opposite ends of the room. Because Nero's baths double most significant motifs across the axis of symmetry, I have done so too with the soaking baths, setting them in the windowed niches on either side of the *calidarium*. With pools and the round basin in this configuration, the design of Nero's *calidarium* is rational and efficient, as well as comfortably familiar to a bather in the first century A.D.²⁶³

Next on the central axis came the *tepidarium*, commonly a less important room in Roman bath design and therefore small in the Baths of Nero. This is followed by the *frigidarium* as the main crux of the building, with the *natatio* or *piscina* to the north of it without spandrels in between. The *natatio* is only remarkable in scale and decoration.²⁶⁴

On the other hand, the Baths of Nero are novel only in the ways just listed. A close look at the plan indicates several features that are far from revolutionary.²⁶⁵ Structurally, the only novelty is the groin-vaulted *frigidarium* and the elaboration of the *calidarium* by the lateral *exedrae*. Otherwise, every other component on the main axis is of simple rectangle shape, easily barrel vaulted.²⁶⁶ The rooms across the south side of the baths, around the rest of the perimeter and at either end of the *frigidarium* are even simpler. They are nothing but simple rectangles, all perfectly fit together side by side, in lines forming the perimeter around the *palaestrae* and the spaces next to the *frigidarium*. None of them would have benefited from a groin vault; all could have been simply barrel vaulted with at least one end opening to the outside or onto a courtyard. This is, of course, a practical design. It is also typical of Roman concrete design in the Julio-Claudian period. Examples include the West Suite of the Esquiline Wing (in Neronian phase 1), late Republican warehouses such as the *porticus aemilia*, and, most importantly, the main bathing rooms in Republican style baths. That means that except for the *frigidarium* the rest of the Baths of Nero were unremarkable, indeed commonplace, in both structure and lighting.²⁶⁷

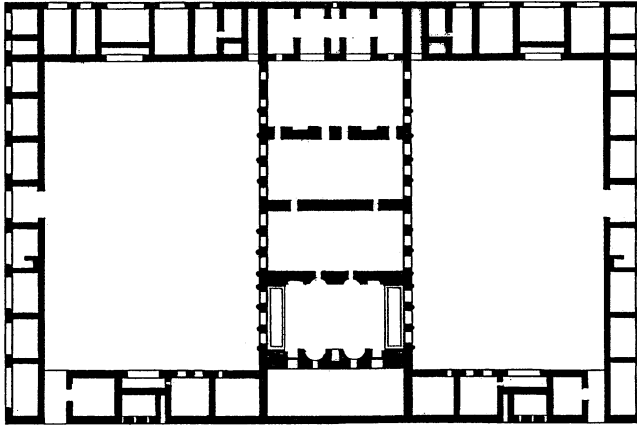
Accordingly, I have reconstructed the design in Figure 82 with groin vaults only where they actually do some good, in the *frigidarium* and *calidarium*. Everywhere else, there are only rooms of traditional designs, where barrel vaults make more sense and groin vaults would only complicate construction, providing no benefit. The minor details are easy to reconstruct, even though the preserved foundations

do not indicate them specifically. The outer ends of the south side rooms were undoubtedly opened somehow, either through windows or colonnades. I have also reconstructed a transverse file of doorways just inside the façade, both because analogous rooms in the Esquiline Wing have this feature and because the south rooms of the later Imperial baths do too. The south rooms in the Baths of Nero are primitive, however, in their consistent size and proportion. Later Imperial baths replaced them with a greater variety of shapes (including ovals), vaulting types, proportions and orientations relative to the outer façade. They are aesthetically different from the simple, linear foundations of the Baths of Nero.

There are many design details of the Baths of Nero that can only be reconstructed speculatively, such as the locations of staircases and the arrangement of hypaethral spaces other than the *palaestrae*. The three colonnades at each end of the *frigidarium* are also speculative; there are foundations in those areas, but I had to decide arbitrarily whether to put walls or colonnades on them. I have chosen colonnades because they are part of a motif favored by Severus and Celer, found in Room 44 (phase 1) and the domed vestibule of the Domus Transitoria in the foundations of the Temple of Venus and Roma, that is, a major visual axis crossed by colonnades, possibly with a pool in the middle of a room so that one had to veer off of the main visual axis. Although this motif does not appear in the Baths of Trajan, Caracalla and Diocletian, they all emphasize the cross axis through the *frigidarium*, with large doorways or colonnades at the ends. It is reasonable to restore something analogous in the Baths of Nero. The location of plunge baths in the corner rooms of the *frigidarium* is based on the identical arrangement in the later imperial baths. Nothing else in my reconstruction is the least bit radical. The design eloquently bespeaks the design aesthetics and engineering practices of the Neronian period.

In addition to the relatively simple room designs, one can also sense the primitive nature of the Baths of Nero by undoing its innovations. In many ways, the Baths of Nero retain considerable similarity to the canonical Republican style bath. The changes are simple and readily identifiable, and reversing them results in the familiar paradigm of the Republican style bath. There are only three changes needed.

First there is the symmetrical overall design. Republican baths are asymmetrical, consisting of a *palaestra* flanked by the bathing rooms lined up on one side of it. This design can be made symmetrical simply by doubling the *palaestrae*, this is, by adding a second one on the other side of the line of bathing rooms. This is an easy and informative exercise, illustrated in Figure 83. I have taken the plan of the Central Baths at Pompeii and modified it in two ways. First, I have squared the overall shape, which in the original was trapezoidal because of the angled Pompeian street grid in the area. Second, I have created an axis running down the centers of



83. A simple scheme for converting the traditional republican bath into an imperial type bath. The plan of the central baths, Pompeii, has been squared and the *palaestra* and outer perimeter rooms mirrored on the east side.

the line of bathing rooms and mirrored the *palaestra* and perimeter rooms on the other (east, or right) side of it. The resulting change is an obvious paradigm for the Imperial bath type. The revision to the plan of a typical Republican bath is tiny, but the resulting improvement in the grandeur of the design is profound.

The design of the Baths of Nero is essentially the same, but spruced up in the more elaborate designs for the *calidarium* and *frigidarium*, plus doubled *palaestrae* on each side. If the *palaestrae* and other rooms on one side of the Baths of Nero are eliminated, the overall plan reverts to a grandiose but otherwise fairly canonical Republican bath layout. Similarly, the *natatio* in a Republican bath (if there was one) was separate from the main bathing rooms, but associated with the *palaestra*. The Stabian Baths at Pompeii are a good example. The Baths of Nero retain this primordial relationship by associating the doubled *palaestrae* exclusively with the *natatio*, separate from the main bathing rooms on the central axis. Later Imperial baths do not retain this association.

Second, there is the groin-vaulted *frigidarium*. This design in and of itself is revolutionary, but it is also a simple rectangle in plan shape, despite its grand scale. It can be readily converted back to either of the Republican period versions of the *frigidarium*, a smaller barrel-vaulted rectangle or a solid square with a small domed rotunda hollowed out of it. Making this change does not revise the plan of the Baths of Nero other than in scale, although the original *frigidarium* design certainly was much less splendid aesthetically.

Third, Severus and Celer improved on the Republican bath type by taking better advantage of the environment. That is, the building was oriented to the south, so

the hot rooms at the south end could all benefit from the sunlight. Related to this, the *calidarium* was elaborated in shape and made to project from the south façade to take advantage of the sunlight all day long. Later baths would refine this motif, by facing southwest so as to emphasize the strongest sunlight at the hottest time of day, but Nero's improvement is obvious in any case. In order to convert the Neronian design back to the Republican original, the projecting *calidarium* apse simply needs to be pulled back into the building, which would also make the room into an east-west rectangle parallel to the other main bathing rooms, as is typical in Republican bath design (i.e., reverting to the configuration of Fig. 83).

With those three changes, the Baths of Nero revert to Republican style in nearly every respect. That is a crucial point, not least because it bespeaks a much closer link between the Baths of Nero and its forebears than has been noted previously. We have already seen that this is precisely how Severus and Celer worked in the Esquiline Wing: they took whatever existing paradigms might be useful to them, made incremental changes in design and thereby created fundamental improvements, especially aesthetic ones. The Baths of Nero are entirely in character.

This is also contrary to common scholarly thinking on the Baths of Nero. Modern scholars tend to analyze them in a way not possible for Severus and Celer, starting with the much better known later examples of the Imperial bath type and putting the Baths of Nero into that context. Yet when Severus and Celer designed the Baths of Nero, the context of the Imperial bath type did not yet exist. They only had the option of looking *back* in time to the existing pre-Neronian designs, to the standard Republican type and the attempts to move beyond it at Baia and in the Baths of Agrippa. Their thinking process, necessarily, had to be analogous to the Domus Aurea; they had no exact precedent for what they were trying to do. They had to invent whatever novelty they would achieve. It is therefore the earlier baths that have an impact on the Baths of Nero, and subsequently the Baths of Nero could have an impact on later Imperial baths, but later baths had no bearing on the Baths of Nero.

It surprises me that these facts have not been better appreciated. The fact that time only moves in one direction should not be a radical notion. That fact sets Severus and Celer into a stylistic context that is easy to reconstruct. That context does not include the Imperial bath type, nor the Esquiline Wing. What Trajan would later do with the Imperial bath type and what Domitian would do with the design features of Nero's palace projects are not Neronian questions, not issues available to Severus and Celer. We only learn about the thinking of Severus and Celer by investigating how their designs relate to what came before; their thinking could include nothing else. I like to hope that by pointing out the relationship

between the Baths of Nero or the Esquiline Wing and the sources from which they sprung, the link will be obvious. Whether all of my conclusions stand the test of time is less important than the process of refocusing our analysis so that it moves in the same chronological direction as the thinking of the architects involved.

The key point, of course, is that the design of the Baths of Nero is primitive in comparison to the later history of the Imperial bath type, with clear links to the Republican bath types that came before. The later bath designs obscured that link as they evolved beyond the Baths of Nero. Each later Imperial bath added its own embellishments not found in earlier baths, but retained by later ones, defining an evolutionary sequence. I trace the history of these embellishments presently, but as far as the Baths of Nero are concerned, even in their Severan guise, the main point is that all of the later embellishments are lacking. Its only significant contribution to the history of Roman bath design was the rectangular groin-vaulted *frigidarium* and the most basic improvements in the overall clarity and symmetry of the building that the *frigidarium* facilitated, including the clear sequence of bathing rooms along the central axis and the symmetrical design with paired subsidiary spaces on either side of it. No subsequent architect conceived of a better scheme. The Baths of Nero have no other innovative features, great or small, that appear in later Imperial baths. The subsequent evolution of Imperial bath design left the Baths of Nero behind.

A brief comparison with later Imperial baths in Rome demonstrates the point. The most important examples are the Baths of Titus, the Baths of Trajan, the Baths of Caracalla and the Baths of Diocletian (Figs. 84 and 85).²⁶⁸ The features similar to the Baths of Nero are obvious, simple and consistent. These baths are all large rectangular buildings with a main axis of symmetry defined by the line of core bathing rooms, the *calidarium*, *tepidarium*, *frigidarium* and *natatio*, always in that order.²⁶⁹ Like the Baths of Nero, all of these Imperial bath buildings are notably wider along their cross axes, giving them considerable façade area at the *calidarium* end of the axis, which always faces south or southwest to catch the strongest afternoon sunlight. The *calidaria* always project beyond the façade to catch sunlight all day long. In sum, in these broad terms the Baths of Nero established the Imperial type, followed by all subsequent monumental baths in Rome.

The Baths of Titus

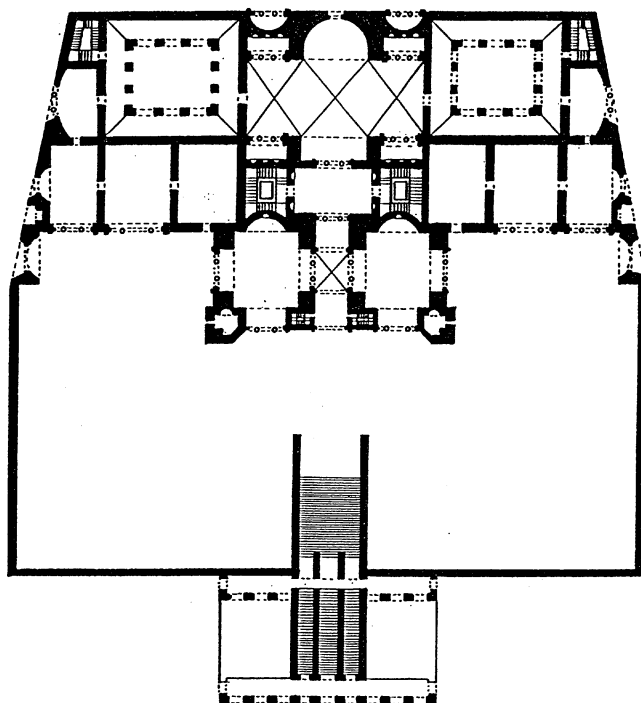
The Baths of Titus are the next step (Fig. 84). For evidence we rely primarily on Palladio's drawings. Little remains of the actual building, making it impossible to confirm Palladio's design in detail. What archaeological evidence there is, however,

does seem to be in concert with Palladio's design, so there is hope that Palladio's design may be reliable. Nevertheless, any conclusions drawn about the Baths of Titus must be considered tentative. Palladio's reconstruction has his normal fanciful insertion of undocumented details, especially gratuitous groin vaults in locations where they could serve no purpose. I have deleted these in Figure 84.

Palladio's design is clearly not a slavish recapitulation of the mature Imperial bath type, which he knew well. Instead, it is much closer to the Baths of Nero, enough so that I suspect the design is actually of Neronian origin. Other factors contribute to this conclusion. The Baths of Titus are immediately adjacent to the Esquiline Wing and built according to the same axes. Because this orientation is oblique to the Colosseum, as well as offset from it, the Baths of Titus clearly fail to harmonize with the Colosseum and therefore fail to create a Flavian ensemble. Titus inherited the Colosseum from Vespasian as an important work in progress; if his architects had then been called on to build a bath building next to it, they would have felt the influence of its great axes and built Titus's baths in harmony with them. Given the available space, that would have been easy to achieve. Why the Baths of Titus were instead sited and aligned according to the Neronian ensemble is therefore a good question. Probably it indicates a Neronian influence on the Baths of Titus, most likely the fact that the Baths of Titus were actually based on Nero's private bath building from the Domus Aurea. If Nero's private baths were still standing, Titus could create (and take credit for) a grand public amenity quickly and cheaply, merely by restoring and revising Nero's bath.²⁷⁰ This would be in accord both with the Flavian propagandistic need to give the Domus Aurea back to the citizens of Rome and with the remarkable speed with which the Baths of Titus were built.²⁷¹

The Baths of Titus are similar to the Baths of Nero in most design features too, including the fact that they consist almost exclusively of simple rectangular rooms. They both have an adjacent open space along the south façade, but not the wider parklands and perimeter complex surrounding the bath building, which would later become typical of the mature Imperial bath type. The Baths of Titus differ from the Baths of Nero in that the open space is surrounded by a perimeter wall or, more likely, a parapet and it included a grand staircase on the main axis of the bath building. It is a more formal arrangement than the Baths of Nero, which, as far as we know, just faced onto an open space to the south. In the case of the Baths of Nero, there was no real need to enclose the open space, whereas the steeply sloping Esquiline topography of the Baths of Titus required a terrace and parapet.

The plan of the *frigidarium* is essentially identical to the Baths of Nero, including three main squares and open areas in the corners where all other Imperial baths



84. Baths of Titus, Rome: The author's reconstruction, based on Palladio.

have plunge pools. There are numerous complexities in the modern scholarship concerning the *frigidarium*, however, not least the nature of the vaulting. Krencker reconstructs it with just one central groin vault, flanked by longitudinal barrel vaults. This is absurd, because it would eliminate half of the clerestory lunettes that three groin vaults would have made possible. Furthermore, the design and proportions are identical to the groin-vaulted *frigidaria* of the other Imperial type baths, suitably scaled down, but otherwise unchanged. Like all other Imperial type *frigidaria*, the structural support is concentrated in the corners of the three great squares, a configuration appropriate for groin vaults, but not for barrel vaults. These arguments do not prove that three groin vaults covered the *frigidarium*, but that is certainly the most reasonable way to vault a plan of this design.

Yegül,²⁷² echoing many others, suggests that the Baths of Titus are the origin for the groin-vaulted *frigidarium* motif. This seems improbable to me. The motif is far too grand and creative to attribute to Titus. Given the speed of the construction of the Baths of Titus and the foregoing analysis of the Baths of Nero, the motif is much more likely to be of Neronian origin. It is much more in character for Nero too. Yegül²⁷³ suggests that Rabirius may have had a hand in the Baths of

Titus, thus attributing this precocious motif to a later architect. I do not find this convincing, at least not based on the *frigidarium*. On the other hand, I do see a similarity between the *calidarium* and the three domed or groin-vaulted rooms next to the pelta court in the Domus Augustiana. Rabirius may well have been involved in this project, but the *frigidarium* is not valid evidence for this.

The vaulting of the Baths of Titus is not documented in any way. As usual, Palladio imagined myriad inexplicable groin vaults, unfortunately retained by Krencker.²⁷⁴ Krencker's vaulting pattern has now passed into the scholarship as writ, but in fact it is baseless; neither we nor Palladio have any evidence at all. I have deleted the spurious groin vaults in Figure 84. The only places where groin vaults actually make sense in the plan are the canonical three in the *frigidarium*, plus one that I have added in the cruciform hallway between the two halves of the split *calidarium*. In each of these instances there is something on all sides for the groin vault to open into, a situation that exists nowhere else in the building.²⁷⁵ All other rooms are simple rectangles, where groin vaults would have been physically possible but entirely wasted because the transverse sides would only open onto flat wall.

The most important feature of the Baths of Titus is the fact that they lack the large axial *natatio* found in all other imperial type baths.²⁷⁶ The Baths of Titus may never have had a *natatio* at all,²⁷⁷ or else *natatii* could have been set in one or both of the hypaethral colonnaded spaces flanking the *frigidarium*. The broad, shallow apsidal rooms at the outer edges of the *palaestra* may have been small plunge baths instead, which would be similar in design to Republican bath design. Other alternatives include an asymmetrical arrangement, with a *palaestra* on one side and a *natatio* on the other. Or else, because one does not readily imagine Nero engaging in much exercise anyway, it would be in character for him to have a bath building that had paired *natatii* and no *palaestra* at all.²⁷⁸ If the Baths of Titus were originally Nero's private baths, the immediately adjacent West Court of the Esquiline Wing might have served as its *palaestra*, to the extent that Nero ever required one.²⁷⁹

In any case, the missing *natatio* gives the Baths of Titus one key difference from the Baths of Nero, the axial relationship between the *frigidarium* and the *palaestrae*. In the Baths of Nero the *palaestrae* flank the *natatio*, spanning the entire north side of the building. In the Baths of Titus the *palaestrae* are in the same location as in the Baths of Nero, set in the northern corners, but because the Baths of Titus lack an axial *natatio*, it is the *frigidarium* that forms the north end of the main axis. The *palaestrae* in the Baths of Titus therefore flank the *frigidarium*, not the *natatio*, forming a new relationship. This relationship then became a definitive feature of the Imperial bath type, retained in all subsequent Imperial baths. In the later baths,

however, there is always an axial *natatio*, so to retain the relationship between the *frigidarium* and *palaestrae*, the later baths had to move the *palaestrae* away from the northern corners, to the center of the building, to retain their relationship with the *frigidarium*. Positioning the *palaestrae* in the northern corners is therefore a primitive feature of the Imperial bath type.

The split *calidarium* of the Baths of Titus is an awkward design, not inherently explicable. It could result from a number of sources, including design entirely by Palladio, experimentation *gratia sui* (and not successful), or separate chambers for seawater and sulfur water if the design is of Neronian origin. Ultimately, however, there is insufficient evidence to analyze the design of the *calidarium* in the Baths of Titus. Regardless of how or why it was anomalous, this calidarium design was not popular with later architects and does not appear in any of the later Imperial baths.²⁸⁰

The small scale of the Baths of Titus may also result from Neronian origin. Compared with the other Imperial baths, designed specifically for the public, the Baths of Titus are anomalously small. The Baths of Nero and, to some extent, the Baths of Agrippa had already established grand scale as an appropriate feature of a monumental public bath building. The Baths of Titus might have seemed meager in comparison, a risk that could have been easily avoided if Titus's architects were designing from scratch.²⁸¹ If they were originally designed as private baths for Nero's Imperial entourage, however they would have been huge. Then, if Titus revised the existing private baths of Nero, he had no control over their size. The scale had been established by Nero's different needs and Titus had to make the best of it. As with the other features of the Baths of Titus, this argument does not prove that they came from Nero's private baths, but the small size is yet another factor that would make sense in that context.

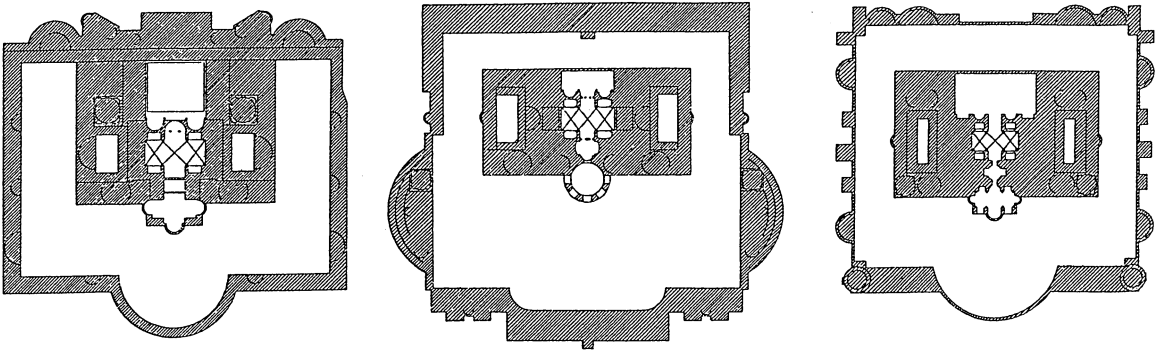
Ultimately, the Baths of Titus cannot be explained in detail. Luckily, however, only one fact about them truly matters in the current discussion, and that is clear enough: the features of the Baths of Titus that we can reconstruct confidently are consistently primitive, similar to the Baths of Nero and different from the later Imperial type baths. Most of the anomalous features are stylistic dead ends, not taken up by later baths. The only substantial change from the Baths of Nero is the relationship between the *palaestrae* and *frigidarium* on a main transverse axis. This became an advanced feature because it was retained in all subsequent Imperial type baths in Rome. On the other hand, the Baths of Titus lack any other advanced features that became definitive in later baths. Like the Baths of Nero, therefore, the Baths of Titus clearly fit at the beginning of the evolution of Roman Imperial bath design.

Later Imperial Baths in Rome: The Baths of Trajan, Caracalla and Diocletian

The Baths of Trajan are the first fully mature example of the Imperial bath type, and the Baths of Nero and the Baths of Titus are early essays leading up to it, but lacking features that became definitive from the Baths of Trajan on. One point that is somewhat deceptive, however, is scale. The Baths of Titus are exceptionally small, but all the others are approximately the same size. This similarity is not immediately obvious because the open parks and perimeter complexes of the mature baths occupy much more space, overall, than the Baths of Nero; but the core bath buildings are all similar in size. The parks are a new feature, surrounding the bath building on at least three sides (in addition to the *palaestrae* incorporated within the bath buildings themselves), with the outer perimeter consisting of additional facilities such as libraries, theatrelike features and lecture halls. The Baths of Nero and the Baths of Titus lack the outer perimeter complexes entirely and have open space only to the south.

The overall design of mature imperial baths is like a wide Greek cross, with the vertical bar formed by the line of bathing rooms from the *calidarium* through the *natatio*. This arrangement followed the Neronian precedent perfectly. The center of the cross is the *frigidarium*, which falls close to the center of the bath building. The transverse bar of the cross was established in the Baths of Titus, as we have seen, consisting of the *frigidarium* flanked by the *palaestrae*, moved down from the northern corners. Not only does this arrangement integrate the *palaestrae* more closely into the whole ensemble, but also it means the *palaestrae* are surrounded on three sides by rooms of a variety of functions, letting bathers move easily from one to another without having to pass through intervening rooms. This was stated even more emphatically in the Baths of Caracalla and Baths of Diocletian, where the *palaestrae* remain centered on the *frigidaria*, but were also expanded to overlap the *natatio* and *tepidarium*.

Thus, there is a clear evolution in Imperial bath design. The Baths of Nero are obviously the closest in design, structure and spirit to the Republican style bath, while also obviously responding to (and rejecting) the problematic earlier baths centered on a rotunda. The Baths of Titus retain most of the features of the Baths of Nero, accepting the design and establishing it as a type. They also change the relationship of *palaestrae* to the rest of the bath block because they lack a *natatio*. That established a new standard to which the Baths of Trajan added the surrounding parklands, the perimeter group and the modular system for the whole complex. Thereafter, the Baths of Caracalla and the Baths of Diocletian contribute only elaboration, without significantly modifying the formula.



85. Schematic diagrams of mature imperial baths in Rome. L–R: Baths of Trajan, Baths of Caracalla and Baths of Diocletian.

In addition, in later baths the rooms themselves became more elaborate, starting in the Baths of Trajan with added apses and alcoves, plus a pair of inserted rotundas. In the Baths of Caracalla the rooms themselves take on curvilinear shapes (most obvious in the rooms along the south façade). Domed rotundas proliferate, especially in the *calidaria* and *tepidaria*, the latter well lit by irregular light wells. The contrast with the straight rows of simple rectangular rooms in the Baths of Nero is patent.

In sum, both on a large scale and in detail, there is a clear design evolution in the Imperial bath type in Rome. The position of the Baths of Nero in this evolution is obviously at the beginning of it, not in the Severan period. Indeed, by the Severan period the Baths of Nero were out of date and, given the repetitive design of the simple rectangular rooms, probably downright dull. This old-fashioned feature would have been much easier for a bather to detect than the archaic proportional systems discussed by DeLaine. I even wonder if Alexander Severus retained Nero's name in the revised version, *Thermae Neronianae Alexandrinae*, to dissociate himself from the out-moded design.

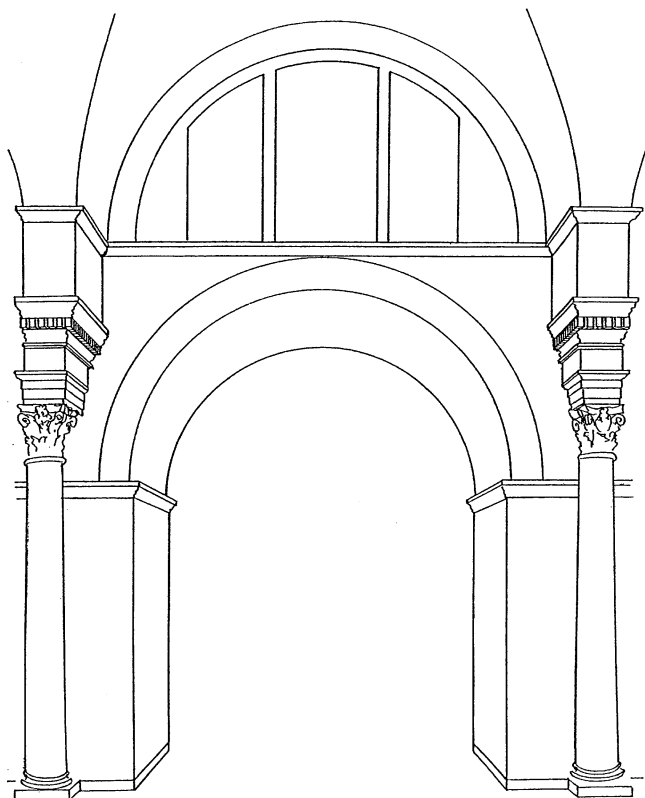
Furthermore, the Baths of Nero are part of the evolution in a way completely different from the other great baths. That is, the Baths of Nero represent the evolution *away* from the simpler and cruder public baths of the Republican and Augustan periods. This is a more difficult step to take, achieved through the same kind of design process that we have seen in the Esquiline Wing. Severus and Celer started with a familiar form and modified it in a few ways, yet they did this so creatively that the previous motif seems to vanish, replaced by something completely new. In the Esquiline Wing we have seen several examples of this process, including the villa motif that was enlarged and elaborated to become the palatial West Suite, the mare's nest of commercial structures that was made into

the grand Pentagonal Court, the villa atrium motif that became the compluviate Nymphaeum Suite in phase 1, the phase 1 compluviate Nymphaeum Suite that became the vaulted grotto in phase 2, and the phase 2 vaulted grotto (*inter alia*) that became the design basis for the Octagon Suite. In each of these instances, the original motif is nearly intact in the final design, yet also nearly invisible; few of these relationships have been noticed by scholars heretofore.

Similarly, the Baths of Nero have usually been thought of as a full-fledged Imperial bath type, credible as a design of Severan date and too advanced to have been Neronian. Yet, in fact, they are in most respects a rather simply modified version of the Republican bath type. They are clearly closer to the Republican type than are even the Baths of Agrippa. Yet no one has noticed. One simply *must* be impressed by Severus and Celer; they were masterful, indeed visionary.

Ultimately, though, the main result of my reinterpretation of the Imperial bath type is to isolate the groin vault as used in the Baths of Nero. Structurally, the groin vault was *the* novelty, the one feature that made the new kind of *frigidarium* possible. Consequently, it was the rectangular and aesthetically splendid new *frigidarium* that made the Baths of Nero a triumphant success. Severus and Celer were certainly well aware both of the revolutionary nature of their success and of the fact that it had been the groin vault that made it possible. Certainly, too, they were well aware that no one previously had used the groin vault in Roman concrete; it was both a tremendous achievement and a brand new idea.

Then, just a few years later at the Octagon Suite, the same architects were trying to cobble together anything they could think of that was clever and novel. In the wake of their success with the Baths of Nero, I suggest, they undoubtedly thought they *had* to use the groin vault somehow. The Esquiline Wing, however, is not the same setting as the baths of Nero, not least because it is banked into a terrace with the *piano nobile* above it, a setting where groin-vaulted clerestories were not acceptable. Furthermore, the fact that groin vaults can be set next to each other to make larger rectangular rooms was of no use in the Octagon Suite; indeed, the Octagon Suite has no two rectangular spaces that might have been opened into each other under groin vaults. In the Octagon Suite, therefore, the groin vault was obviously useless. Equally obviously, however, Severus and Celer were not willing to let mere uselessness prevent them from putting groin vaults in the Octagon Suite. They found a place to insert them, in Rooms 123 and 125, regardless of their value there. Their patron, after all, was Nero. Knowing their man, Severus and Celer did not need the motif to be practical, but they did need it to be on the cutting edge. In that one respect alone the groin vaults make sense in Rooms 123 and 125.



86. Baths of Diocletian, Rome: Schematic elevation of one *frigidarium* bay (cf. Fig. 73).

Finally, the elevation of the sides of Rooms 123 and 125 (Figs. 73 and 76) falls into the same category as most other design motifs in the Esquiline Wing. That is, it is already familiar, but no one has noticed the source. Consider the side elevation of one bay of a groin-vaulted *frigidarium* in an Imperial bath (Fig. 86).²⁸² In most of its essential features it is virtually identical to the side elevation of Rooms 123 and 125.²⁸³ There is the groin vault at the top, capping a tall vertical segment of non-load-bearing wall below. The wall elevation below the groin vault is divided into two stories, with the clerestory filling the lunette at the top. The *frigidarium* clerestory is analogous in position and shape to the upper alcoves or the original vault haunch clerestories in Rooms 123 and 125. Below the clerestory there is either a complete or segmental barrel vault, covering one of the corner plunge baths. The floor level alcoves in Rooms 123 and 125 and their non-load-bearing segmental barrel vaults correspond to this. Obviously a true clerestory in the upper alcoves was impossible in Rooms 123 and 125, but Severus and Celer already had

their own precedent for what elevation to build under a groin vault, and at least on the sides of the room facing the dome there were vault haunch clerestories at the proper level. As long as they were gratuitously translating the groin vault from the *frigidarium* of the Baths of Nero into the Octagon Suite, they might as well include the rest of the two-storied *frigidarium* elevation too; it did no harm in the Octagon Suite, and it made the reference to the highly innovative prototype more explicit.

3. THE PERSONAE OF SEVERUS AND CELER AND THE HISTORY OF ROMAN CONCRETE DESIGN

When I first set out on this project I had rather limited goals in mind. My focus on the masonry of the Esquiline Wing, as an end in itself, is clear enough in the previous chapters. My intention had been to clarify and solidify our understanding of the chronology of the remains on the Oppian ridge, assuming that doing so would confirm existing thought on the Octagon Suite. Ultimately, that has indeed turned out to be one result of my study. Had that been all I achieved, this project could have been thought of as a success. Undoubtedly it would be less controversial as well. The Esquiline Wing has not let me off so easily, however. The Esquiline Wing is a vast body of evidence that supports analysis in much broader areas, most notably the discussion of the thinking of Nero and his architects and, by extension, of the Imperial bath type in Section 2 of this chapter. Neronian architecture, and with it the change in architectural theory, had a lasting influence on later Roman architecture, however, which means that by revising our understanding of Nero and his architects we must, perforce, also revise our understanding of the thinking of later architects as well.

As was the case with the baths, I cannot pretend to complete originality in this area. In particular, MacDonald's essay on the most famous architects of the Imperial period is a fine synthesis of contemporary thinking on Roman architectural aesthetics and the personalities behind them.²⁸⁴ This chapter can be thought of as a commentary on MacDonald, adding some observations from my own work in the Esquiline Wing.²⁸⁵ I do not simply follow in MacDonald's footsteps, however. Rather than focusing on the stylistic personae of individual post-Neronian architects, about whom the Esquiline Wing tells us nothing, I prefer to consider the broader evolution of Roman architectural style, thereby focusing on the design features of the buildings rather than the individual architects. This does not supplant

MacDonald's analysis of the architects, which I think stands without modification, but adds nuance to it.

I start with Severus and Celer both because they are the first step in the evolution and because they serve as an object lesson in how my own thinking has been formulated. When Tacitus names them specifically,²⁸⁶ it is in a passage devoted to the audacity of Nero's architectural projects, citing some of the more outrageous features of the Domus Aurea and listing a number of other titanic undertakings. The latter, of course, were all unsuccessful because, as Tacitus would have us believe, they represent hubris on the part of both Nero and his architects, thinking they could improve on the natural world. Tacitus also raises the key challenge faced by modern scholars trying to analyze ancient aesthetics and artistic personae: he simply does not tell us enough about either the people involved or their works to support detailed analysis.

One of the most important questions, for instance, is the division of labor between Severus and Celer. Because Tacitus's wording puts the job descriptions ("architects and engineers") in the plural, the point is ambiguous; Latin grammar could account for the use of the plural here merely for the sake of consistency in the sentence, or else Tacitus could have meant specifically that both men served both functions. The latter would be more in line with Vitruvius's notion of the architect as polymath, but ultimately we simply do not know. MacDonald separates the two functions, assigning architectural design to Severus and structural engineering to Celer. This, too, is possible in Tacitus's wording; if it is correct, then we can see the hand of Severus designing the spatial ambience in the Octagon Suite, assembling the clever design motifs from the most novel sources and Celer putting together the eight-spoked structural rib system, the triangular piers, and so on.

All of that is plausible; none of it is demonstrated. From the modern scholarly point of view, it is desirable to analyze personalities, but our limited information on Roman architects makes that a speculative exercise. MacDonald gives a good sense of the problem, noting the vast discrepancies in the scholarship concerning each of the major architects. Scholars have suggested potential dates of birth and death for them that span many decades, trying to assign undocumented buildings to known architects on stylistic grounds. For instance, the Baths of Titus, whose architect is nowhere mentioned, have been interpreted as a late work by Severus and Celer or an early work by Rabirius. Either, both and neither are all perfectly reasonable possibilities, given no evidence in favor or against any assignment. Furthermore, the assignment of buildings to architects is not even clear within a given dynasty. In the Neronian period this is most obvious in the fact that the architects of the Baths

of Nero are not named. Some scholars assign them arbitrarily and tentatively to Severus and Celer, the only named architects we know from the period, an article of faith that I have retained in this essay. Similarly, Apollodorus of Damascus is cited in literary sources as the architect of only three Trajanic buildings in Rome, one of which is not identifiable (an *odeion*), whereas the most famous standing Trajanic building, the Markets of Trajan, is not included specifically. Modern scholars, however, tend to assign everything Trajanic to him, even major works of sculpture.

As MacDonald makes clear, this is not a situation that can support detailed stylistic connoisseurship, at least not in terms of the styles of individual architects, no matter how strongly we are inclined to try. More to the point, I think it is a mistake to do so, but I also think the contrast between the study of Roman architecture and Roman art in other media can lead us in a more useful direction. If we consider Roman sculpture, for instance, we feel no such frustration. There is a clear relationship between the style and iconography, on the one hand, and the intentions of the patrons and sculptors on the other. The questions raised by the sculpture, whether plebeian or imperial, are addressed by the sculpture itself and can be readily related to the personal, social, religious or political message. The stylistic evolution is also readily traceable and rarely confusing. Sculpture, of course, commonly has the advantage of being public art with a message, even in crude plebeian funerary reliefs. We have plenty to analyze without needing to name individual artists or analyze their personal styles. The notion that the hand of a specific artist is inherently valuable was not keenly felt by the Romans, and the lack of artists' names or stylistic personae is not particularly missed in modern scholarship.²⁸⁷

Closer in spirit to the history of Roman architecture is the history of Roman wall painting, to the extent that we know it. Despite continual improvements in our scholarly understanding of Roman frescoes, the four famous Pompeian painting styles, and their chronological sequence, remain essentially valid. We do not have to reconstruct public messages or detailed programs in most Pompeian wall decoration, despite the fact that many scholars have attempted to do so. Given the consistency of the basic stylistic type popular in any period, and given the repetition of popular figural motifs from one house to another, it is clear that Roman wall painting was a fairly straightforward matter of evolving taste and fashion in interior decoration. There was a chic style in any given period. Not every patron followed the latest fashion, but the vast majority did. We can always tell what stylistic features were predominant in any period. As was the case with sculpture, with no hope either of identifying the hand of a specific painter or of

learning his name, we are content with style. More to the point, if we did know the name of the occasional Roman painter or sculptor well enough to assign it to a specific work or style, we still would not know the whole field. We would not know how that painter or sculptor related to his anonymous contemporary colleagues, forebears and stylistic progeny. The Domus Aurea itself can serve as a useful example, because we do have the name of the most famous painter involved, Fabullus/Famullus, and that fact simply does not matter. There is little point in trying to identify his hand in the Esquiline Wing, assuming he painted there at all, because no other contemporary artist can be isolated, either in name or style. If we could distinguish Fabullus/Famullus we still would have no idea from whom or what we are distinguishing him. Stylistically, however, the Esquiline Wing is a perfect example of florid fourth style, and on that basis it can be readily set into the evolution of Roman painting in general. We have to be content with that, and easily can be.

I think Roman architecture can be better analyzed without letting the limited evidence for architects' names confuse us. For example, we would not understand the Esquiline Wing or the Baths of Nero any better if we knew for certain that Severus was the aesthetic designer and Celer the structural engineer, as is commonly assumed. Assigning those functions to separate names tells us nothing about the nature of their achievements; that is a matter for the architectural remains to elucidate, and the conclusions drawn about the design or structure do not change according to how confidently we can determine the division of labor. Similarly, our interpretation of the Baths of Titus would not change if we knew for certain whether it was late Severus, early Rabirius, both or neither, but it certainly would change if we had better architectural remains to study. Like Roman sculpture and painting, the work speaks for itself. A vastly more detailed knowledge of artists and patrons would be needed to apply a more modern standard of stylistic connoisseurship. Lacking that knowledge, style alone is our subject.

Despair is not my point, however. By abandoning the pursuit of individual artistic personae I do not mean to abandon the pursuit of stylistic types. The concept of *Zeitgeist* is no longer popular, but I think it has been rejected too thoroughly; for Roman architecture, at least, *Zeitgeist* remains a valid intellectual tool. There is, I think, such a thing as "the Neronian style" of architecture, with a reasonably consistent design philosophy and preferred media and techniques, regardless of who the artists actually were. The Neronian architectural *Zeitgeist* underwent some change under the Flavians and continued to evolve after them. It is a simple point, but also important to emphasize because my study of the Esquiline Wing has not changed the names of the artists, but certainly has changed our

understanding of their design philosophy and, most significantly, their systematic intellectual procedure. Those things have enormous implications for the rest of Imperial Roman architecture.

By looking at individual artists we tend to think in terms of stylistic evolution, based on the idea of master and apprentice. In this context, Severus is seen as the forebear of Rabirius, who leads on to Apollodorus, and so on. In contrast, looking at architectural style in isolation and ignoring personalities, I perceive what Steven Jay Gould referred to as a punctuated equilibrium. It is not a question of consistent evolution, but of one stylistic school existing for a time and then being superseded by the next in a relatively quick, discreet step. One of the ways this happens is for a later school not to try to add fundamental change to the previous, but, on the contrary, to accept, codify and consolidate the achievements that came before. Instead of the whole field of Roman architecture proceeding consistently, it is more a pendulum swinging between innovators and consolidators.

This is a fairly simple situation, largely based on the fact that it is impossible to be a leader if no one follows. Hadrian is probably the best example. To a certain extent the florid curvilinear designs at Tivoli, such as the famous pavilion of the Piazza d'Oro, illustrate what happens when a designer leads too far. Most likely Hadrian would have liked to have such forms become the norm in Roman architecture, but that did not happen. Hadrian had no control over the process, which consisted of the fact that later architects, after his death, did not choose to follow the trail he had blazed. Later architects reverted instead to rather timid refinements of forms dating back to Trajan. Hadrian's achievement at Tivoli was an important stylistic pinnacle for Roman architecture, but it was also stylistically stranded. Hadrian was therefore far ahead of the norm in Roman architecture, yet he was not a leader.

The Neronian period can be best understood in similar terms. Overall, I interpret the Neronian period as a time of unbridled creativity, indeed revolution. That is also the common scholarly perception of it, ascribed validly enough to Severus and Celer. Undoubtedly other architects were involved, but lacking their names we let Severus and Celer stand in for them conceptually. The Esquiline Wing is by far the best example of the Neronian architectural spirit, simply as a matter of preservation, and its style confirms that the audacious character of Neronian architecture cited by ancient authors was not an exaggeration; their impressively audacious character is what we actually find built in concrete.

I only modify this interpretation of the Neronian period in a few minor ways based on my analysis of the Esquiline Wing and the Baths of Nero. First, the prevailing sentiment is that the Neronian period is wholly revolutionary, that it

was a period of profound and fundamental change. While this is generally true, I think it is also excessive, treating the entire Neronian period as if it were just one architectural instant. So, for instance, if we compare Roman architecture under Claudius with the Baths of Nero and the Octagon Suite, the nature and scale of the change appear enormous. But the stylistic change did not occur as one great leap. That would be to overlook all the intervening steps and thought processes, which were deliberate and systematic. The Neronian architectural revolution never sprung fully armed from anyone's forehead; only in hindsight does it appear instantaneous, when we consider the entire Neronian period at once. It seems to me, however, that the evidence from both the Esquiline Wing and the Baths of Nero bespeaks architects who took what they knew and asked themselves what new things could be done with it. This is an intellectual and analytical process more than it is a matter of revelation or inspiration. Certainly Nero was a catalyst, demanding cleverness, artistic affectation and novelty, not feeling any constraint from prevailing ideas or styles. That, however, is incentive, not inspiration; someone still has to think up the new ideas. The fact that this process of ideation can be reconstructed in the Esquiline Wing (and more speculatively in the Baths of Nero) is one of the most important contributions that my studies make to the scholarship of Roman architecture. A stylistic and structural revolution, exploding out of nowhere, is an inexplicable marvel and therefore more emotionally appealing because it does not have an intellectual explanation. Marvels are fascinating, of course, but they usually derive from our inability to understand a given phenomenon; marvels tend to bespeak our ignorance rather than actual truths. I think we know Neronian architecture considerably better now, and even if that makes Neronian architecture less marvelous, it also makes it more human, more familiar, more understandable. From a scholarly standpoint, that is highly satisfying.

Second, my studies also give some sense of the aesthetic personae involved, even though I insist we cannot confidently assign names to the various details. This is closely related to the previous. Neronian architectural design was an intellectual process, asking what can be done with what already exists. In that context, small incremental steps are a good likelihood. One idea at a time will strike the architects, and if we look at the stylistic evolution under Nero in close enough detail, we can see those ideas appearing individually. This is indeed what we find in the Esquiline Wing. More interesting, the small incremental steps that we can isolate all appear to have been taken with the ultimate goal of revolutionary novelty. This is a huge improvement in our understanding of Neronian architectural thought. And it is *thought*, contrary to the prevailing sense that audacious, creative outrage exploded under Nero marvelously and inexplicably.

Furthermore, and most important, Severus and Celer were truly brilliant. In each evolutionary step their minor physical revisions fundamentally changed the aesthetics of the original design source. It is physically evolutionary and aesthetically revolutionary at the same time. Again, however, this is the stuff of human achievement, not inexplicable marvel. The fact that the fully mature forms at the end of the evolution, specifically the Octagon Suite and the Baths of Nero, also appeared to be utterly unlike their antecedents accounts for the revolutionary character of Severus and Celer overall. It is this fully evolved aesthetic that constituted the Neronian architectural legacy. The West Block of Neronian phase 1 would have posed no particular stylistic challenge to Flavian architects, but Flavian architects came later than the entire Neronian period and therefore had to confront – and, more to the point, live up to – the much more challenging standard of the final Neronian achievement in the Octagon Suite.

Third, Nero's architectural revolution was not totally successful. The obviously awkward areas in the Octagon Suite indicate that considerable refinement was still possible, indeed needed. At least from the point of view of architectural history, it is a pity Nero did not survive long enough to oversee the process of refinement. Be that as it may, I think the Neronian architectural revolution was well under way, indeed unstoppable, at Nero's death, but also not complete in ways that later architects could easily isolate by studying the Neronian designs. Accordingly, the Neronian architectural revolution was completed under the Flavians, but also redirected according to considerably different Flavian needs and purposes.

Flavian architecture, then, needs considerable attention in the light of the revised assessment of the Neronian architectural revolution. My thesis in this case has to do with the notion of leadership that I described before. It takes two parties to define a leader, someone leading and, necessarily, someone choosing to follow. Lacking a follower, one does not lead, but only wanders. Augustus might have been a paradigm for the Flavians. He came in the wake of numerous splendidly innovative early essays in concrete architecture, most notably the Sanctuary of Fortuna at Palestrina, so he inherited an architectural legacy of fine concrete designs similar to what Nero left for the Flavians. Yet we do not talk about a late Republican revolution in Roman concrete, but of the Neronian architectural revolution. This is not because of any failing on the part of the late Republican architects but because Augustus largely ignored their precedent. They led, but he did not follow, ergo they did not become the way of the future. This was Augustus's conscious choice, for the sake of political propaganda, with no purely architectural rationale. The late Republican concrete specialists certainly still existed under Augustus, but there was no Augustan architectural revolution because he sent them away to make

bridges. Augustan patronage for fine architecture was lavished on specialists in the Greek orders. There are Augustan exceptions, of course, most notably the Baths of Agrippa, but they prove the rule more than they maintain the evolution. The fact that the Baths of Agrippa were not a very good design also shows a lack of regard for the possibilities of concrete.

I think the Neronian architectural revolution is therefore as much a Flavian achievement as Neronian, because the Flavians *did* accept much of what Severus and Celer had achieved, codified it, rationalized it, refined it and, most important, made it typical. Only with the Flavian acceptance of Nero's achievements can we think of this kind of architecture as "Roman", as opposed to "Neronian". Whether the specific architect named Rabirius is responsible for this achievement is, I insist, immaterial; the best-known Flavian examples speak for themselves stylistically. All in all, I think Flavian architecture is much more conservative than Neronian. It is a period during which the architects were not asking themselves what new things could be made with existing ideas, but rather were asking how existing Neronian ideas could be refined and made more harmonious, and in some ways more splendid, but not more radical. When I likened the evolution of Roman architecture to a punctuated equilibrium, I divided it into periods of innovation and consolidation; the Flavians are a perfect example of the latter.

A few examples will suffice. The awkwardness surrounding the Octagon Suite does not recur in Flavian architecture for all intents and purposes.²⁸⁸ Obviously the Flavian architects recognized that the awkward components of the Esquiline Wing were a problem and they corrected it. Unlike Augustus, though, they addressed it not by abandoning the concrete architectural revolution entirely, but by accepting the concrete medium and trying to solve the remaining problems. If we look at the Domus Augustiana and the Domus Flavia, for instance, we can see harmony and order throughout. There are few awkward spandrels of solid masonry or contorted rooms; those that do exist are isolated in inconsequential areas.²⁸⁹ Most of the rooms are simple rectangles, and it is by no means certain that the main public rooms in the Domus Flavia were vaulted at all. Yet in some areas the design is a splendid exercise in up-to-date concrete, most notably the vestibule group on the west side of the Domus Flavia courtyard. Here the architect has neatly arranged quartets of addorsed semicircular rooms, with rectangular alcoves in one addorsed pair to occupy the spandrel between. It is a fine design, with efficient use of the available space. It is also a fine statement of the architect's confidence in the concrete medium and his appreciation of its aesthetic potential. Yet it is rigorously orderly too, using much simpler shapes than Severus and Celer assembled in the Octagon Suite, and keeping them all within obvious rectilinear confines. This, and

other similar passages, strike me as the rampant Neronian architectural revolution duly tamed. Although Severus and Celer contributed the idea that an architect is a designer of complex interior voids, it is the Flavian architects who refined the architects' challenge to become the *harmonization* of those voids. The latter, then, became the way of the future for Roman architecture, even in the case of Hadrian's deliciously complex, but flawlessly integrated, curvilinear designs at Tivoli.

Other features that are commonly regarded as essentially Flavian are actually of Neronian origin, further examples of the experimental becoming the typical. In the area northeast of the pelta court, on the upper level, the overlapping rectangular rooms, with alcoves flanked by small hallways, derive obviously from the West Suite, for instance. Another recently discovered example is the motif of alternately projecting and receding rectilinear and curvilinear shapes. The most famous examples are in the Domus Flavia, in the elliptical fountains flanking the banquet hall and in the side wall treatment in the grand audience hall at the northeast end of the main axis.²⁹⁰ In the Esquiline Wing Fabbrini has found a similar motif surrounding the long pool at the north edge of the East Block *piano nobile* (Fig. 70). We would have to know the history of Roman design in much greater detail to trace this motif with complete confidence, but on a broad scale the implications of its appearance in the Esquiline Wing are clear enough. It was certainly rare under Nero, and perhaps completely new. It is a relatively simple thing to invent and one can easily imagine Nero being the catalyst for it. The pool itself would have been nothing special unless a designer thought up a way to make it fancier. The question, "What can I do to spruce up these long straight edges?" largely answers itself. The resulting complex undulation of the sides of the pools was apparently both exquisite and avant-garde in the Neronian period, undoubtedly just the kind of aesthetic exclusivity that Nero craved. The motif became pioneering because later architects took it up. The examples in the Domus Flavia are duly famous, but it appears elsewhere, too. For instance, a much simpler, more tentative and somewhat earlier version appears in the Imperial Cult Building at Pompeii.²⁹¹ The motif of alternating projection and recession does recur here, albeit in a notably more simple form than Nero's pool in the Esquiline Wing, not least because the recessions and projections are all rectilinear. Regardless of how one chooses to interpret this, it is certainly noteworthy that the undulating motif appears in this provincial setting, far from the Neronian source in Rome. Because the Imperial Cult Building must be later than A.D. 62, the motif is late Neronian or Flavian. It is far too simple to be late work of Severus and Celer. Early work of Rabirius is a possibility, but much more likely, I think, the undulating motif had become a canonical part of the Roman concrete design of that period. Any architect would

be expected to know about it. In Pompeii the motif stands out aesthetically; certainly it was conspicuously chic when the Imperial Cult Building was constructed, making everything around it instantly out-moded by comparison.

The undulation motif continued to evolve after Domitian, but it seems to have been too busy for later Roman tastes, becoming a small decorative motif rather than a feature of large-scale architecture. It manifests itself most obviously in the alternation of round and rectilinear niches or alcoves – for instance, in straight walls in Imperial baths or around the interior of the Pantheon – but in most cases with the wall itself remaining flat. In a sense, therefore, the simpler treatment of the Imperial Cult Building in Pompeii was to become the way of the future, a less florid and therefore perhaps more comfortable version of the more complex motif for which Nero and Domitian were famous. Once again, therefore, Nero appears to be the source of a good design motif, but used it too exuberantly for later taste. Domitian took up the motif, using it almost as floridly. At the same time, however, the excessively complex Neronian essence is toned down. Finally, the simpler version passes into common Roman architectural vocabulary. By the time of Hadrian, its appearance in the Pantheon hardly seems remarkable at all and is so thoroughly understated as to be easily overlooked. The daring steps had been taken under Nero and were then codified, simplified and rendered familiar under the Flavians. All Hadrian had to do was accept what had already been done; he could focus his creative attentions elsewhere.

Perhaps my most heretical opinions have to do with Trajan. The Esquiline Wing itself contributes relatively little to this opinion, but the reappraisal of the groin vault motif and of the Baths of Nero in the previous essay has considerable implications for the architectural style of Trajan. By sweeping away the Severan (and modern) revisions to the Baths of Nero we not only move the design of the Baths of Nero back into the Neronian period, but also clarify how it relates to the overall evolution of the Imperial bath type. That revises the context for the Baths of Trajan and requires that they, too, be reconsidered. I do not suggest profound change in our understanding of the Baths of Trajan, but certain key nuances in their interpretation must be revised. By changing my thinking on the Baths of Trajan I have also changed my thinking on Trajanic architecture in general. My thesis is that the architecture of Trajan, whether or not we assign it to Apollodorus of Damascus, is somewhat less novel than previously thought. This is not to say that Trajanic architecture is unimpressive, but that it is impressive more by being large and voluminous. More specifically, Trajanic architecture did not need to be revolutionary in design, but could simply aggrandize well-established motifs.

The Baths of Trajan are our first challenge. Certainly they are the first fully mature example of the Imperial bath type, with much more in common with the Baths of Caracalla and the Baths of Diocletian than with the Baths of Nero. It is so obvious that the later baths are refinements of the Baths of Trajan that I do not need to address them. Trajan established the type. On the other hand, although this is an important and influential achievement, it is also not inherently creative – indeed it is quite the opposite. In my conception of leaders and followers, they are patently the latter. Agrippa, Nero and, perhaps, Titus took the daring steps. Trajan accepted existing features and made a new synthesis of them, especially the harmonious and formal incorporation of the surrounding parklands and other ancillary facilities. It is only the formalized relationship that is a novelty too, not the existence of the parklands; the Baths of Agrippa, Nero and Titus all had related open spaces and other parklike facilities around or next to them, just not formally incorporated into the bathing complex. Otherwise, the Baths of Trajan are a refinement on what came before, but nothing in them is inherently new.

A simple list of features demonstrates the point. From the Baths of Agrippa came the scale, the rotunda motif (possibly with niches on the diagonal axes), which Trajan doubled, and the parklands all around. Because the Campus Martius was being developed under Augustus to become a kind of a cultural park and health spa, the overall setting for the Baths of Agrippa can be related to the Baths of Trajan too, including the fact that cultural facilities such as the Theater of Pompey and its formal garden were close by. The theater can therefore be thought of as relating to the baths of Agrippa about as closely as the theatral area in the great hemicycle of the Baths of Trajan. The distance from the main bath building is approximately 100 meters in both cases. From the Baths of Nero came the symmetry created by doubling nonbathing features on either side of a main axis, the orientation with the hot rooms to the south, the main bathing rooms in clear order along the main axis, the huge groin-vaulted *frigidarium*, and the basic design of the *calidarium* (for good or ill). From the Baths of Titus, whether they date to Nero or Titus, came the transverse axial relationship between the *frigidarium* and *palaestrae*. To this list the Baths of Trajan add the perimeter structures and their extra cultural facilities (libraries, small *odeia*, the theatral area, etc.). These enclose the surrounding parklands and create the formal relationship between the surrounding features and the core bath building. Finally, the Baths of Trajan commence the process of using curvilinear shapes in vaulted concrete to elaborate the design, primarily in the form of conched semicircular rooms.

Returning to the theme of *Zeitgeist*, Trajan must be thought of as being quite conservative. This is by no means damnation; he was famously practical and by

the early second century the Romans had an enormous existing architectural vocabulary. There was no point in inventing a new motif when a splendid old motif already existed. Trajan therefore made aggrandized versions of what had come before. No motif was impressively novel in design, nor needed to be. Undoubtedly the people of Rome were both impressed by his works and comfortable with them.

That leaves the Markets of Trajan, where my most heretical thoughts are focused.²⁹² The *Aula Traiana* is the only motif that requires detailed appraisal, everything else being either obviously precedented or easily explained. Ancient experience of the site would have been much different from our current impression of it, which has significant implications for the great hemicycle. As originally built, the great hemicycle was not the monumental, stand-alone feature we see today, but a spatial remnant. When the Forum of Trajan actually stood, it would have been obvious that the intentionally designed feature in the area was not the hemicycle itself, but the northeast apse of the forum. The interior of the apse and its conch facing onto the forum were obviously the “front” of the motif. Not only was it visually the most interesting architecture, but also it was where all the fancy decoration was concentrated. The apse’s round projection to the northeast was obviously the rump, little more than a curved exterior wall with little or no decoration. Beyond the apse there was nothing to the northeast but the space left over from clearing the site. The street along the northeast side of the forum necessarily curved around the apse. No other shape for that street was possible. That means, in turn, that whatever was built across that street from the apse would form a great hemicycle. That would be true if nothing at all had been built there, leaving a giant hemicycle formed by the cutting in the Quirinal made at the inception of the Forum project.²⁹³

This is not to say the hemicycle area of the Markets of Trajan is not splendid, because indeed it is. It just is not terribly new, nor impressively creative. It is essentially the same situation that one sees in modern Rome, where two streets southwest of S. Andrea della Valle are of grandly curving shape due to remaining influence from the long vanished Theatre of Pompey. In this case, the curves are formed by numerous buildings of disparate date and design. No one ever intended to make a grand, sweeping curved design out of these buildings; each was built in its own time on the existing street front, but because the shape of the street itself had been defined as a grand sweeping curve by the Theatre of Pompey, the ensemble of latter buildings has that shape too. It is a grand motif, but its grandeur was not a conception in the mind of the architect of any of the component buildings. The only real difference for Trajan’s hemicycle is the fact that it was designed and built all as one project, giving the whole façade consistent decoration. The fact that

the great hemicycle now stands alone, as a huge motif in its own right, is rather misleading, therefore. When it was originally built, with the great apse from the Forum of Trajan projecting into it, the whole sweep of the hemicycle could not be seen from any vantage point. It was simply consistent decoration across the street from the apse. The façade itself had to be curved to get it out of the way of the apse, yet now, in the absence of the apse, it appears to be one of the grandest Roman designs still standing.

All other features of the design are precedented. The shops are utterly typical, small rectangles in plan, with canonical doorways and small *hypaethrae*. The decorative “baroque” broken pediments had been common in Rome as far back as Claudius.²⁹⁴ The structural system of the middle level corridor is the same as the half annular vaults around the *exedrae* at the Temple of Fortuna at Palestrina and the half-groin vaults that open from it to the adjacent shops are not remarkable. Any room in the Markets of Trajan that could be covered by a barrel vault has one.

In sum, it seems to me, the hemicycle area of the Markets of Trajan displays confidence more than creativity. This is true structurally as well. The manifold groin vault at the top of one of the staircases is a fine example, as are the vault haunch clerestory windows surrounding the northernmost semicircular conched room. The vault haunch clerestory motif essentially died with Nero, but this is a rare post-Neronian instance where it made sense. The vault haunch clerestory is not regarded as a Trajanic motif, but his architects were content to use it when an appropriate place to do so presented itself.

That leaves the Aula Traiana, an impressive structure of unique design. Both of those adjectives require discussion, however. It is impressive primarily because the whole complex is big.²⁹⁵ The shops are again perfectly typical and the concrete groin vaults over the central space are not at all novel, other than that they spring from travertine corbels. Corbels, of course, are a rather crude structural system, depending on the tensile strength of the material, which is one of stone’s significant weaknesses. To make the corbels function, the blocks had to be huge and heavy. Undoubtedly a solution purely in concrete could have been both lighter and stronger, but Trajan’s engineers knew their trade well enough to make it all work reliably, and probably the corbels were thought of as aesthetically desirable.

I have a lesser opinion of the Aula Traiana than is common, however. For instance, it is commonly said to be novel because it is the first known attempt at an indoor shopping mall. This ignores the fact that Greek Stoa had already been providing the same amenity for centuries, especially the more elaborate versions such as the Stoa of Attalos in Athens, which included individual shops and offices in addition to the covered ambulation space in front of them. *Macella* with shops

opening into a perimeter colonnade are a similar device common in Roman usage. In the concrete medium, the late Republican market hall at Ferentino provides an even closer analogy to the Aula Traiana in that the entire ambulation space is covered by one large vault.

Furthermore, the weather protection and lighting in the Aula Traiana are poor. This is, admittedly, a value judgment, prevailing opinion being generally the opposite. I insist, however. The configuration is not so much creative as odd. If the Aula Traiana had been designed in isolation, true clerestory lighting would have been easy, with the very same structural system, only with the line of groin vaults elevated above the prevailing roof level. Given the precedent of the imperial bath *frigidarium*, it is likely that this possibility was considered by Trajan's architects. The advantages of a true clerestory are considerable. First, the structural system for the vaults could have been moved outward so that the walls between the shops would have borne the load. There would have been no need for the springing points of the groin vault to interfere with the walkway in front of the shops. The clumsy travertine imposts would also have been unnecessary. Second, the light from the sun comes in sideways, not straight down. The best system for collecting it is a vertical window, not the horizontal open slots in the roof actually used in the Markets of Trajan; a true clerestory would have made the interior brighter. Third, the higher vault would have given the interior an airier and more spacious feel, to go along with the improved lighting. Fourth, the space in the upper level that the customers actually used was the area in front of the shop doors, precisely the area left open to the elements in the aula as it was actually built.

Given the obvious advantages of a true clerestory system here, and the equally obvious precedent available to Trajan's architects, it is certainly valid to wonder why they rejected the motif in the Aula Traiana. The question is answered by the overall configuration of the Markets of Trajan; Trajan's architects did not have the option of building a true clerestory here. There was to be another level of shops above the aula on the next terrace up the slope of the Quirinal, where a true clerestory over the nave would have interfered with them.²⁹⁶ These shops have windows and *hypaethrae* opening right across the nave vault of the aula, with the nave vault already slightly higher than the sills. Any significant elevation of the nave vault would block the light from these windows. This is a situation similar to what Severus and Celer faced when they designed the Nymphaeum Suite and the Octagon Suite; the *piano nobile* above constrained what could and could not be done below.

The design of the Aula Traiana is usually considered to be a set piece, where clever architects thought up the most ingenious design they could, with little

constraint other than the structural limitations of Roman concrete. This is true enough for the plan of the building and for the elevation of the two stories of shops, but not for the vaulting and lighting. Like the Esquiline Wing, the lighting could only come from horizontal holes in the roof. What was put under those holes was effective and clever in the Neronian design – and exactly the opposite in the Aula Traiana. Nero's roof holes occur in two places: courtyards or above the vaults of Rooms 44 and 128, next to vault haunch clerestory windows. Given that courtyards were usually gardens, rain falling into them was actually advantageous, whereas over Rooms 44 and 128 the rain fell on the lower vaults and was therefore inconsequential for the interior of the building. The downspout cuttings surrounding Rooms 44 and 128 make it clear that rainwater was collected at the bottom edges of the vaults and channeled away.

In comparison, the lighting system in the Aula Traiana is grossly clumsy. It is no more and no less than holes in the roof, directly above the gallery in front of the upper level shops, right where customers would stand. This is a fundamental error in design. The gallery pavement gets soaked in any rain, and customers had no protection. If there is the slightest wind the rain also comes through the sides of the groin vaults and wets the floor of the nave. In good weather (which is when most non-Italian scholars visit the building), the lighting system does provide adequate light throughout the *aula*, albeit rather dim in the lower level shops. In bad weather, however, the interior is both dark and clammy, with the floors wet throughout. Readers familiar with the year-round climate of Rome will recognize that this means the Aula Traiana is a dark and unpleasant environment from mid-November to mid-April.

This is damnation indeed, but I think it is also easily explicable. The Aula Traiana is vitally important to modern scholars, like the great hemicycle, largely because it exists at all. In contrast, I also doubt the Aula Traiana mattered much to Trajan or his architects. The explanation, I think, derives from my revised impressions of Roman architectural evolution. Everywhere else that I am aware of in Trajanic architecture, his architects would have been foolish and wasteful to try to invent new motifs. They had excellent, well-tested and fully mature examples of everything they had been asked to design. They took great existing ideas and made them bigger. Aggrandizement and refinement were their forte, not invention. Or, to put them in the overall context of Roman architectural evolution that I suggest, they were consolidators, not innovators.

The Aula Traiana, in contrast, is unprecedented, not because covered shops did not already exist, but because Trajan wanted them in an unprecedented location, terraced up a steep hill. He also wanted them not to be boring, even if they were

largely commonplace, because they were associated with his grand and highly symbolic forum project, and he did intend the whole project to be a public amenity. So, *something* interesting had to be done with the shops, but once Trajan was satisfied that they were good enough, then little other thought or effort had to go into their design. The existing kinds of covered commercial space would not work in this setting; this is no place for a *stoa* or a traditional *macellum*. The tiny market hall at Ferentino was only a fraction of what Trajan needed, both in size and visual interest. So here, for once, Trajan asked his architects to be creative, to be innovators. I suspect that request came to them as a shock. It is clearly at odds with the much simpler intellectual processes that had served them so reliably in their other grand designs. Their design, ultimately, was complex and workable enough. Given the challenging setting, it is even laudable, to a point. It is also a badly flawed design, however – a market where, on rainy days, both the floors and the customers get soaked. The design needs of the Aula Traiana are unique to the steeply sloped site, but it is also interesting to note that the basic motifs, especially the horizontal slots instead of true clerestories, died along with Trajan. Undoubtedly the Romans who used the complex during the rainy season quickly came to resent its uncomfortable weaknesses. Being impressed with a novel usage of the groin vault springing from corbels is scant compensation for being cold and wet.

More important, I also suspect Trajan's architects did not care. The design that mattered both to them and to Trajan was their new forum complex; the markets were utility buildings and space fillers, once the grand forum had been laid in. The markets did not have to be excellent; they merely had to be enough. That they were. The fact that ancient literary sources have nothing to say about them gives us a good sense of how ancillary they were to Trajan's thinking. Like the great hemicycle, the Aula Traiana is prominent in our minds today mostly because it still stands. If the forum complex stood, however, the markets would not only be residual, but would also *appear* to be residual. Their chief function was to house activities that had been displaced by the forum, activities that meant little more to Trajan than the fact that they needed to be gotten out of his way. Probably lesser architects, perhaps even apprentices, were told to do something useful with that space, but not to bother Trajan with the details.

My intention, however, is to refine our understanding of the Aula Traiana, not to lambaste it. I think it has been given prominence and credit beyond its due and that we can actually understand it better if we treat it more dispassionately than has been the case heretofore. Most important, if we think too highly of the Aula Traiana we can lose sight of the essence of Trajan's architectural Zeitgeist. In

the process of innovation and consolidation, the markets come from a period of consolidation, a time for devising fully mature versions of existing motifs. It is not a time of unbridled creativity, indeed not a time that fomented much creativity at all. The Forum of Trajan is a perfect example. In that context, the Aula Traiana is an aberration, the exception that proves the rule. Its complexities and awkwardness were matters of necessity, but not the natural inclination of architects inspired by Trajanic *Zeitgeist*; the project demanded unaccustomed thinking from Trajan's architects. The best analogy for it, then, is the Baths of Agrippa. In a reign where splendid trabeated designs were the emperor's preference, the one place that a novel design in concrete was a requirement is also the place where innovation faltered and the design did not succeed. Indeed, I suspect the only reason the Baths of Trajan were not just as awkward as the Baths of Agrippa was because Severus and Celer had intervened with a superior design. From the point of view of the architects of the Aula Traiana, it is a pity that neither Nero nor Domitian ever needed to wedge a fancy market into a hillside site.

More important, and more damning, I also think we should have known this from literary sources all along. When Dio²⁹⁷ reported that Apollodorus of Damascus dismissed the young Hadrian's architectural designs as "pumpkins", he clearly indicates fundamentally differing attitudes toward what constitutes correct architectural design. Hadrian's "pumpkins" are easy to identify as the complex domes commonly found in Hadrianic architecture, especially at Tivoli. These certainly represent creativity, novelty and an emphasis on aesthetic design for its own sake. Hadrian's pumpkins were a renewed attempt to exploit the flexibility and strength of Roman concrete and, in essence, they represent the next step in the architectural revolution started by Nero. They also represent the first hint of Hadrian's architectural innovation that would ultimately follow Trajan's phase of consolidation. We do not know what design Apollodorus and Trajan were discussing when Apollodorus dismissed Hadrian's pumpkins, but it certainly must have been different from them. Some sort of more conservative design is the only valid possibility.

This is an easy hypothesis to check, too, because we have enough Trajanic architecture preserved to reconstruct his architectural *Zeitgeist*. But, by giving the Aula Traiana both a degree of attention and credit for clever design that it does not deserve, we obscure that Trajanic *Zeitgeist*. It is, in fact, precisely the conservative and practical spirit that I have just described, as illustrated by all the most important Trajanic buildings. These include the baths most notably, but certainly too the entire forum complex, and even the famous bridge over the Danube.²⁹⁸ Paradoxically, the unique possible exceptions, the Aula Traiana and

the great hemicycle of the Markets of Trajan, seem to me to be more awkward than creative, and their designs derive more from the necessities of the sites on which they were built than from novel thinking on the part of particularly creative architects. More important, they are given far too much modern attention because of the mere happenstance of preservation; ancient literary sources do not even notice them.

In sum, I think the Neronian architectural revolution ended with Trajan, having completely taken over the field of Roman architectural design. Even though this consigns Trajan to the rôle of the ultimate consolidator, that, too, is important. Nero initiated the architectural revolution, which the Flavians refined and sanitized, but it was Trajan who finally turned the Neronian architectural revolution into the permanent Roman status quo. That fact is the final stamp of success for Nero and his architects.

Furthermore, by this argument I do indeed dismiss Hadrian's much more creative designs. I do not demean Hadrian's pumpkins, which are my personal favorite in the whole history of Roman architecture, but they, too, need to be reappraised. Hadrian is analogous to the precocious achievements of the later Republican concrete architects, or even of Nero's architectural legacy in the hands of Vespasian, in that he led into wholly new and uncharted realms. His designs are less important, though, because no one followed their lead. It took Domitian and Trajan to complete the *Neronian* architectural revolution, converting it into the *Roman* architectural revolution. Hadrian's pumpkins could have led to a whole new level of creative achievement, but that was not in Hadrian's hands. He was succeeded in office by Antoninus Pius and Marcus Aurelius, both notably uninterested in architectural innovation. Then came the chaotic Severan dynasty and the civil war of the third century. Not meaning to deny the splendid achievements of the Severan bath buildings (Baths of Caracalla and whatever Alexander Severus contributed to the Baths of Nero) or of the monumental construction projects of Diocletian and Maxentius, I do insist that none of their designs had a fraction of Hadrian's innovations. Hadrian's attempt to add another step to the Roman architectural revolution was a failure because they did not take the torch from him. Hadrian's design ideas were left stranded in perfect isolation after his death. They are the capstone of the Roman architectural revolution, started in the late Republican period, but as design types they are more Hadrianic than Roman.

In sum, the complexity and temerity of the Octagon Suite underwent successful consolidation under Domitian and Trajan. By itself the Octagon Suite was not the way of the future, not least because later architects and patrons could not be comfortable with either its audacity or its awkwardness. Structurally and aesthetically,

however, it did incorporate ideas that could be refined by later architects, made comfortable and wonderful without being chaotic or naughty. Under Hadrian, the complex domes of the Piazza d'Oro and the Canopus, in spirit, have more in common with the audacity of the Octagon Suite than does the Pantheon, but the Pantheon followed in the mainstream that was started by Nero, refined to the point of easy acceptability by Domitian and Trajan. The Pantheon was and remained quintessentially "Roman", whereas Hadrian's pumpkins withered on the vine. Such audacious motifs did not appear again until Borromini, in the seventeenth century, by which point the only continuity with Hadrian was the fact that their city still had the same name.

NOTES



ONE. AN INTRODUCTION TO THE ESQUILINE WING OF NERO'S DOMUS AUREA

1. A historical overview of Nero is not my intention, however. My analyses of Nero are based largely on the ancient literary sources themselves, plus the modern analyses of Griffin, Bradley and Morford. Despite the relatively splendid literary record for Nero, this is not the simple enterprise it may seem, as will be discussed later in the chapter. On the other hand, my concerns are exclusively architectural, so I do not join the debate concerning Nero's controversial gifts as a poet.
2. Suetonius, Nero XXXI. The Latin is "domum . . . quam primo transitoriam . . . mox incendio absumptam restitutamque auream nominavit." This does not specify that the Domus Transitoria was actually completed, but only that it was damaged in the fire and restored. In Tacitus's description of the great fire (Ann. XV.xxxviii–xl) the wording is more explicit: "the house by which he had connected the Palatine with the Gardens of Maecenas ("domui eius, qua Palatium et Maecenatis hortos continuaverat . . .") where the use of the perfect tense suggests that the Domus Transitoria was completed.
3. That this was a commercial district, not residential, is the key thesis of Morford, *passim*, whose arguments I follow closely.
4. The actual perimeter of the Gardens of Maecenas is not known, however, so the distance is stated vaguely. See Haselberger et al., 145, for current scholarly opinion on the extent of the gardens.
5. Suetonius, Nero, XXXVIII.
6. Suetonius, Nero, XXXI, and Tacitus, Ann., XV.xlii, are the most detailed descriptions. Pliny offers a number of isolated details scattered throughout N.H., XXXIII–XXXVI.
7. Suetonius, Nero XXXI, says it was 120 feet high, the figure most commonly quoted in modern times, but probably in error. Pliny I, N.H., XXXIV.xviii.46–7, says 106 feet, and Dio, LXV, says "over 100". Suetonius's figure of 120 feet may come from a reference by

- Pliny I, N.H., XXXV.xxxiii.1, describing a painted canvas portrait of Nero in the gardens of Maecenas, which was 120 feet tall.
8. See, for example, Fabbrini 1995, 57.
 9. Suetonius, Nero, XXXI, “There was a pond too, like a sea, surrounded with buildings to represent cities, besides tracts of country, varied by tilled fields, vineyards, pastures and woods, with great numbers of wild and domestic animals”. The Esquiline Wing may well have been one of the “cities” forming a backdrop for the parklands.
 10. Van Essen, *passim*.
 11. Warden, 271–5.
 12. Panella 1996, Chapter I (with Antonia Arnoldus Huyzendveld) and Chapter IX (by Maura Medri). Bergmann, *passim*, covers what is known about the colossal statue. Van Deman, *passim*, is devoted to the relationship between the Forum and the Domus Aurea.
 13. Fabbrini 1982, *passim*.
 14. The Neronian presence on top of the Caelian is not known in detail (nothing is cited in the literature and the evidence was swept away down to the Claudian platform by Vespasian), but the Neronian nymphaeum on Via Claudia proves that there was Neronian work on the Caelian.
 15. Lugli 1957, 591–2, identifies the *cryptoporticus* masonry as Neronian (credibly, it seems to me). The terrace substructures would benefit from detailed study, but it appears to me to be an example of Lugli’s *III Periodo* (*ibid.*, 590–7), the *opus testaceum* style that includes Nero, but postdates Tiberius and Caligula. Much more evidence would be needed, however, to distinguish between the Domus Transitoria and Domus Aurea phases, if they exist here.
 16. Tacitus, *Ann.*, XV.xlii, “However, Nero turned to account the ruins of his fatherland by building a palace, the marvels of which were to consist not so much in gems and gold, materials long familiar and vulgarized by luxury, as in fields and lakes and the air of solitude given by wooded ground alternating with clear tracts and open landscapes” (Loeb).
 17. Here I follow Morford, *passim*, who argues that the literary tradition concerning the Domus Aurea was written solely by Nero’s detractors, using a conventional vocabulary for the damnation of *luxuria*. Morford demonstrates that this conventional vocabulary had been developed long before Nero and had little to do with specific architectural features. Ancient literature on the Domus Aurea therefore tends to be dramatic but uninformative.
 18. Other parts of the Domus Aurea are badly preserved and therefore poorly understood. See the brief entries on these in LTUR, 49–56 (Cassatella and Papi).
 19. Tacitus, *Ann.*, XV.xlii, “The architects and engineers were Severus and Celer, who had the ingenuity and the courage to try the force of art even against the veto of nature and to fritter away the resources of a Caesar” (Loeb).
 20. The key sources are Boëthius, Ward-Perkins, Kähler, Van Essen and MacDonald, who covered the major design issues; more recently Fabbrini, Lancaster, Meyboom, Moorman, Perrin and I have been interpreting the building in greater detail.
 21. Fabbrini (e.g., Fabbrini 1983, Plate II) assigned the numbers to the rooms, followed by most modern scholars. The names assigned to the various groups of rooms are my own. In some cases I have numbered the small spaces Fabbrini overlooked, such as Room 27A, preferring to insert letters rather than complicate Fabbrini’s system.
 22. The floor, too, is well above the original hill surface. Excavations have been sunk through the floors in several places, revealing earlier Julio-Claudian and late Republican walls and floors up to a meter below the Esquiline Wing’s floor level. Sanguinetti 1957 and 1958 are publications of one of these excavations, below the floors of Rooms 37 and 53–55. Fabbrini

- 1986, 139–45, describes her excavations in Corridor 92. These excavations take us back a mere century before the Neronian period. A further half millennium of Roman history remains to be excavated in the Esquiline Wing area before sterile soil will be reached.
23. Panella 1995, 51–5, and Panella 1996, *passim*.
 24. Fabbrini 1982, *passim*, is her publication of this excavation. The area has been backfilled, so I have not studied it myself; Figures 5 and 7 are based on her discoveries.
 25. See Fabbrini 1982, 7–8, for the archaeological evidence; Fabbrini 1995, 56, surmises that the view extended to the summit of the Esquiline, possibly with more Neronian architecture as part of it.
 26. Fabbrini 1995, 56. The evidence for this has not been published; I saw no trace of it when I studied the building.
 27. These are my names for the groups, consistent with Ball 1991 and 1994.
 28. Fabbrini 1983, Plate III, and Fabbrini 1995, 56.
 29. De Romanis, Tav. I, reproduced as Fabbrini 1983, Figure 5. The rooms east of the Trajanic platform edge come from these earlier excavations and are not based on remains seen by modern scholars.
 30. Moorman 1995, n. 7., must be taken with some skepticism, therefore, because he takes the second pentagonal court as given and works out a proportional analysis of the whole Esquiline Wing based on the width that he invents for that imaginary second court.
 31. Ball 1991, *passim*.
 32. Ball 1991, Part I.2, and Ball 1994, Appendix II.
 33. Lugli 1957, Chapter VI. *III Periodo* spans from Claudius to Titus, although it is rare after Nero. My methodologies for masonry analysis are much more detailed and, when isolated only within the context of the Esquiline Wing, more effective than Lugli's. They are described in detail in Ball 1991, Part I.1, and Ball 1994, Appendix I. I do include one caveat here: the analytical methodologies of Van Deman, Lugli and Blake are extremely problematic and in many ways inadequate. Simply applying them to the Esquiline Wing provides only the vaguest of data and can result in misinformation. A higher analytical standard is not merely desirable but necessary and should be applied comprehensively throughout the building.
 34. Fabbrini 1986, *passim*, is the original publication of this building.
 35. One doorway, inserted during construction and then abandoned before it was completed, is the unique exception that proves the rule.
 36. Lugli 1957, Chapter VI. *IV Periodo* is defined on pp. 597–8, the definitive example being Domitian's palace on the Palatine. The most distinctive feature is leveling courses in *bipedales*. Type L is a primitive version with the leveling courses irregularly spaced (I thank Laura Fabbrini for calling this to my attention).
 37. Suetonius, Otho, VII: "the first grant that [Otho] signed as emperor was one of fifty million sesterces for finishing the Golden House". Because Nero had already moved in (Suetonius, Nero, XXXI), there cannot have been much work left for Otho, perhaps only decoration. In its small size and grand decoration Type L fits this scenario perfectly.
 38. De Romanis, *passim*, is the publication of the original excavations (1811–14).
 39. Ball 1991 includes detailed description of the decoration evidence, as it stood in 1985–6, for every room, but offers little interpretation. I thank Eric Varner for a number of observations concerning the decoration of the West Suite and its possible implications for the masonry. The most important modern scholarship on the decoration of the Esquiline Wing are Dacos, Lavagne, Sear, Peters, Meyboom, Moorman, Pinot de Villechénon-Lepointe, Perrin and Tybout, cited in my bibliography. I do not address any of this scholarship *per se*. Early sources such as Mirri and Carletti and other eighteenth- and nineteenth-century

paintings and prints of Esquiline Wing frescoes remain the best sources for basic information because of the substantial decay of the frescoes that has taken place in the meantime. See, for example, Pinot de Villechénon-Lepointe 1971 and 1988 for a substantial selection of images from the Louvre collection (many are Mirri's original watercolors, but including examples by other early visitors as well). It is often difficult to determine where in the Esquiline Wing these designs were originally found and, when this can be determined, far too commonly the only remnants now are the modern iron clips installed around the edges of the frescoes to hold them in place. The decoration has decayed and fallen away from the clips, leaving them as ghostly indications of the original perimeter.

40. As recently as 1963 this program was notably better preserved, viz. photo 10184 FG/Anno 1963 from the *Fototeca Unione*.
41. Color is a problematic issue because weathering has substantially changed some of the pigments. De Romanis, 17, reported that this was well under way in 1811, some of the frescoes having decayed dramatically in the 35 years since Mirri and Carletti's publication in 1776. Some of the damage had to do with the emissions from a saltpeter factory above the Esquiline Wing. Today, frescoes in the area of Rooms 32–36 retain evidence of this damage. The frescoes in the West Court are now white ground in some areas and black ground in others, probably due to black oxidation of lead-based pigment.
42. The name *volta dorata* refers to the assertion that some of the relief stucco framing was gilt. I have seen none of this and de Romanis said it was not there when he studied the vault in 1813 (de Romanis, 15–16). De Romanis referred back to Mirri and Carletti's publication of 1776 as his only evidence. One therefore wonders if the gold leaf ever existed.
43. These are no longer visible, covered by the modern concrete floor. The colors I have seen were light and dark blue, light green and white (Sear 1977, 92, found the same assortment). Some of the bedding mortar for these mosaics remains on the vault, especially in the southeast side.
44. Sear 1977, 90–2, Lavagne 1970, 673–721 and Lavagne 1988, 579–84.
45. De Romanis, tav. II, shows what was known by the beginning of the nineteenth century, whereas Weege, unnumbered plan, shows what was known by 1913. By the beginning of the twentieth century it was clear that there was a large polygonal exedra (the Pentagonal Court) and that an oblique room existed in the East Block (Room 125). The full perimeter of the Pentagonal Court, the Octagon Suite and much of the Nymphaeum Suite remained to be excavated.
46. The notion of the Neronian architectural revolution is not my invention. For example, MacDonald, 41, and Ward-Perkins, 1981, 97 ff, discuss the Esquiline Wing under that very rubric; it has become a shibboleth in Roman architectural historiography – and validly so, as my own work confirms.
47. MacDonald, *passim*, especially Chapters II and VI (122–7).
48. Most specifically, MacDonald Chapters III and IV, but *passim* as well.
49. The notorious Latin term is *luxuria*, which involved not only the conventional English notion of luxury, but also a lifestyle component, especially the fact that one's exquisite comfort and splendid 'taste' were to be enjoyed and appreciated publicly.

TWO. DISTANTLY PRE-NERONIAN PHASES

50. Room 7 still exists, but is not described in this catalogue because its ancient masonry is not intact.
51. Excavated by de Romanis, 26 and Plate II.

52. There was also a final phase in the West End Group consisting of added internal walls of *opus mixtum* with mezzanines above them (see Fig. 2 for the few still standing, and de Romanis, 26, Plate II, for those now vanished). These do not bond to either the Type A or Type F, making Neronian phase 2 their *terminus post quem*. This late project is discussed in Chapter 4.2.
53. This is the thesis of Morford, *passim*, demonstrated by the pre-Neronian literary record for commercial structures in this area and confirmed by the Type D project (Chapter 2.2), originally identified as a commercial structure by Fabbrini 1986, *passim*.
54. Meiggs, 355–62, and Hermansen, 67–72. This complex is late Hadrianic or early Antonine (Meiggs). The guild halls were those of the *hastiferi* (certainly) and the *Schola dei dendrofori* (probably).
55. Hermansen, 74.
56. Panella 1996, Chapters II and VII. Panella 1995 provides a synopsis.
57. Rickman, Chapter VI. Rickman focuses on *horrea*, but groups of *tabernae* would have been administered in a similar manner.
58. The splendid decoration in the *macellum* in Pompeii or on the Macellum of Nero (as depicted on Nero's coinage) demonstrates clearly that the fine original decoration scheme in the West End Group does not preclude commercial activity.
59. Rickman, n.19, 164–9 and Fig. 18, the Horrea di Hortensius at Ostia. The rooms in a line on the west side of the courtyard are large, including one nearly 10 m wide. It is dated to the late Julio–Claudian period. The only feature found in the West End Group not found here is the transverse file of doors. If the West End Group was intended for shops rather than grain storage, that alone would be enough to account for this difference.
60. Fabbrini 1886, *passim* (my own description of the Type D remnant is Chapter 2.2).
61. I call it Room 38 here, rather than Staircase 38, because it was only converted into a staircase in the Neronian period. As indicated in the description of the decoration (Chapter 1.4), the remnant of Pompeian third style decoration and the non-Neronian practice of using unfaced concrete for a terrace retaining wall indicate that this area was definitely in use in the pre-Neronian period.
62. See Chapter 4.1 for the evidence of Neronian period use of the West End Group as slave quarters.
63. Fabbrini 1986, *passim*, is her publication. My analysis is based entirely on my own work, formulated before Fabbrini's publication, but it is entirely compatible with hers.
64. Sanguinetti 1957 and 1958, *passim* (see also my Chapter 3.2).
65. Fabbrini 1986, 148–55, discusses the evidence in detail.
66. Fabbrini 1986, 2) *sezione A–A* and 3) *sezione B–B*.
67. Fabbrini specifies a *horreum*; I think *tabernae* are more likely, but both make sense and neither has any bearing on the Neronian Esquiline Wing.
68. A third variety appears in the pre-Neronian Type X masonry described in Chapter 3.1, found also in the shops lining the Forum of Julius Caesar in Rome.
69. The excavation is unpublished, as far as I know. The trench and wall segment appear in plan in Fabbrini 1982, Plate II.
70. Fabbrini 1986, 139 ff, illustrated in her Figs. 7, 9 and 12. This is a preliminary publication of the excavations. Fabbrini's Figure 9 is the most important evidence for the current discussion, showing the original northwest jamb of the doorway of Room 86. Some of this trench also can be seen in the right foreground of my Figure 9.
71. The extent of the pre-Neronian remains in Room 88 can no longer be reconstructed. The pre-Neronian walls probably did not reach as high as the Esquiline Wing, so the tops of the

side walls were probably raised with Neronian masonry, whereas the southwest façade wall of Room 88 is entirely Type F, integral with the North Group. Because the relieving arches of the side doors of Room 88 are intact, the pre-Neronian material probably extends no higher than the soffit of the doorways.

THREE. THE PENTAGONAL COURT

72. Fabbrini's publication of the pre-Neronian remains described in Chapter 2.2 (Fabbrini 1986, i.e., my Type D) did not upset this way of thinking because they contributed little to the Neronian design – and no feature at all that was visible inside the Pentagonal Court. If one accepts only the Type D complex as being pre-Neronian, then one also need not reconsider the Neronian origin of the Pentagonal Court Design.
73. The walls added in Room 88 were founded at the lower Type D level, whereas Type X is at the higher level of Type C and the Neronian Pentagonal Court, an obviously later standard.
74. Here again, the shops on the south side of the Forum of Julius Caesar are of the same design.
75. I say perilously because a similar situation occurred between Rooms 52 and 65, when the southwest corner of Room 65 was trimmed off in Room 52 and the corner did, in fact, break (Fig. 12).
76. Neronian pointing is rigorously consistent throughout all phases of the Esquiline Wing. The standard was well defined and scrupulously maintained, with no trace of individual practice left up to the masons. The acreage of wall surface involved is staggering, including all of the shaded walls in Figures 29, 30 and 69 and all of the Neronian masonry in the Pentagonal Court (Rooms 80–83 and 87–91). So, in response to scholars wondering whether the masonry distinctions may result from one Neronian mason deciding to do something a little different, the answer is no; beyond any doubt, this was not permitted in the Neronian project, anywhere, ever.
77. The recent cleaning of the Esquiline Wing has revealed this crack much more clearly than was the case when I first conducted my field research in the mid-1980s, confirming my interpretation. It is clearly a seam between phases, that is, a place where the earlier phase was broken off and the next phase laid in next to it. Lancaster 1995, 1.1.2, has argued that the crack might be explicable as a remnant of irregular construction techniques, specifically two gangs of Neronian masons working next to each other simultaneously. This must be rejected both because it would not explain a break of this configuration and because, in such a case, the bricks for both gangs of masons would have come from the same source and therefore would be of consistent thickness. Lancaster is right to note that separate gangs of masons working next to each other do leave evidence of the occasionally uneven interface between them. The phenomenon is called a “pig” (Lancaster 1998, 291). Pigs, however, represent a course or two, at most five or six. They are a small adjustment to bring disparate gangs back together on the same course, with contiguous courses above and below them. Pigs are proof that contiguous courses were desired, because the pig itself represents fudging the density of the courses precisely for that purpose. Also, the bricks involved in a pig are generally not broken at the seam end. In all respects the seam in Room 80 is clearly a different phenomenon.
78. The fill currently in the doorway is modern. Figure 12 shows the configuration correctly; Meyboom and Moorman 1992, Fig. 24, is not correct, showing a bond between the Type X east side of Room 70 and the Type D north end. Similarly, they show a bond between

the southwest side of Room 69 and its southeast end, which is also incorrect; the southeast end is earlier, and the southwest side abuts it, as my Figure 12 shows.

79. For example, Fabbrini 1986, tav. IV, and Meyboom and Moorman 1992, 144–5 and Fig. 24, interpret it this way.
80. Meyboom and Moorman 1992, Fig. 20, argue that this decoration is Neronian. This is untenable, as demonstrated in Chapter 4.3.
81. Fabbrini 1986, 134 (item 4 on the list of pre-Neronian remains) identifies the South Party Wall as a coherent entity, but she says little about it in isolation.
82. The name is mine, indicating that it is the south end of the Nymphaeum Suite and the party wall between the Nymphaeum Suite and the East Suite (Rooms 56–64) to the south.
83. For the distantly pre-Neronian remains below Neronian floor level, see Sanguinetti 1957, 1958, *passim*. Fabbrini 1986, tav. I, includes a detailed plan.
84. Sanguinetti 1958, 45, says that some of these walls were *opus quasi-reticulatum*, indicating a late Republican date. I have not studied these walls myself. Types B and Y are *opus testaceum*, undoubtedly of early imperial date.
85. Most notably, the East Suite (Rooms 56–64) had been highlighted as a separate masonry type on the old 1:200 excavation plan kept at the site.
86. A caveat: I do not mean to suggest that *hypaethrae* are the only kind of window found in shops nor that they could only appear in that context. They are, however, a type very commonly found in a commercial context, while also being distinctly different from Neronian practice. *Hypaethrae* are therefore suggestive when found throughout Types C and D, yet nowhere in Neronian masonry in the Esquiline Wing.
87. Morford, *passim*.
88. Suetonius, *Nero XXXVIII*.
89. Perrin 1996, *passim*, offers a different interpretation, which seems less plausible, but not impossible. He interprets this entire area as being part of the holdings of Maecenas, including a palace in the area of the West Suite and the famous tower from which Suetonius says Nero surveyed the burning of the city (Nero, XXXVIII). Because the fire started nearby and ravaged this area, I doubt Nero would have come here (bravery does not spring to mind when thinking of Nero) and therefore do not expect that the tower of Maecenas was in this region. Perrin's interpretation is based on literary evidence, where Maecenas's holdings are topographically vague, so the question ultimately remains moot. The archaeological remains tell a somewhat different story, most obviously in the Type D complex, which Fabbrini 1986, demonstrates credibly was a commercial establishment, appropriate for this district as described in the literary sources. So Perrin's specific equation of the Type D project with the tower of Maecenas seems implausible, but his suggestion that Maecenas (or other aristocrats) had quality holdings in this area may help explain why Type C was so fancy.
90. For detailed descriptions, see Ball 1991, 225–46 and 314–21.
91. Alcoves appear in Rooms 60 and 64 too, but in those cases the alcoves are surrounded by small, rectangular masses of solid masonry.
92. For details, see Ball 1991, 233–8.
93. As argued by Lancaster 1995, 1.1.2 and Meyboom and Moorman 1992, Fig. 18 (this highlights the East Suite as a Neronian phase prior to the West Suite, but there is no argument in support of this in the text).
94. This is a difficult configuration to explain, because the doorway is much narrower than the staircase, with part of the bottom of the staircase therefore running into the wall. The staircase seems to have been intended primarily as a service passage in the Neronian period, so perhaps this explains its awkwardness.

95. Figure 69 is conjectural in this area. Rooms 133–137 are inaccessible. The doorways were filled by Trajan's engineers, and presumably the rooms were backfilled. The exact path taken by the outer foundation of Trajan's Baths (the long, oblique line at the east end of the plan) is uncertain. The two places where it crosses Corridor 142 are the only places I have seen it, although there are foundations in front of Room 133 that probably belong to it too (oddly, Room 144 is accessible and the Trajanic wall does not appear there, although apparently it ought to). Exactly where the Trajanic foundation crosses Rooms 133–134 is unknown to me; on the plan I simply extended the straight line crossing Corridor 142. From the outside of Trajan's platform one can see Neronian walls cut off where they extended beyond the bath perimeter, so certainly the southeast corner of the East Block was cut off, somewhere.
96. Preservation is so bad inside Room 91 that the identification as Type C comes from the south side of the wall, in Corridor 96. The whole Type C section is integral, however, with both corners at the west end of Corridor 96 bonding, providing a large and reliable sample.
97. Here I must withdraw a prior argument. In Ball 1991, 294, I noted that the points of some Type F bricks overlap some of the revetment preparation on the Type C part of the pier. I concluded that the revetment preparation must therefore have predated Type F, but in fact the masonry evidence is ambiguous. Because the holes were cut through the existing facing and can only be seen right at the tips of the Type F bricks, there is no reason they could not have been cut after the Type F masonry was laid. At the tips of the Type F bricks, the holes would simply have burrowed through Type F to the Type C beneath it. The revetment evidence in this corner is therefore inconclusive. In order for the revetment to be securely linked to Type C, the Type F bricks would have to be removed to see if the more deeply buried Type C masonry also had revetment preparation beneath intact Type F. A purely Neronian revetment program in the Pentagonal Court makes more sense with current evidence, not least because the interiors of the Type C rooms were not prepared for revetment.
98. I know of just two examples, the window between Rooms 29 and 30 (obviously intended to make Room 29 the grandest and brightest room in the West Suite) and the quasi-skylights cut in the wall between Corridors 92 and 93. As we saw earlier in the chapter, the windows between Corridors 92 and 93 were a late addition, resulting from incompatible designs in pre-Neronian and Neronian phases.
99. Lancaster 1995, 1.1.5, trying to interpret this whole area as Neronian, suggests that the window was made to allow the decentered formwork from Room 91's vault to be removed. This is improbable, both because removing that formwork would have been a trivial matter (the unique vault shape meant that the formwork was not reusable elsewhere, so disassembly would not have been a problem) and because the doorway between Rooms 90 and 91 was already part of the Neronian design, a much bigger opening for the removal of formwork than the window would have been.
100. One may wonder why the apses were not built to polygonal plans, more closely resembling the shape of the ultimate revetment. Broadly oblique corners are difficult to execute in interleaving brickwork and require specially configured bricks. Simply building an apsidal configuration where the surface of the apse responded to the location of the edges of the revetment panels was much easier and used regular bricks as well. The extra space between the flat panels and the curved facing surface would have been easy to fill with bedding mortar.
101. The earlier scheme can be seen clearly in Photo E54505 in the *Gabinetto Fotografico Nazionale* in Rome.

102. The remains of the Domus Transitoria on the Palatine indicate that the Domus Transitoria was decorated to a notably higher standard than Room 116 or the first phase in Room 119's conch. The Type C project is therefore the best candidate for this simpler decoration style in Room 119 (i.e., the Type C rooms were not redecorated in the Domus Transitoria stage). The third style of Room 116 is certainly in keeping with a pre-Neronian date, whereas the flatter and simpler design in Room 119's conch is more in keeping with third style, albeit not specifically identifiable as such.
103. The difference is a full course per meter, which is substantial.
104. For instance, Lancaster 1995, 1.1.2, dismissing the crack as a "disturbance" in the brickwork.
105. For instance, Moorman 1995, 404. This is a more problematic instance than Lancaster, because the evidence itself is ignored, both in Corridor 96 and in all surrounding rooms. Moorman's argument that the crack cannot exist because there is *III Periodo* masonry at both ends of Corridor 96 is simply specious.
106. The relationship between Rooms 73–74 and Room 82 is less clear because the latter remains filled in (Fig. 12), but certainly the doorway of Room 82 was pendant to that of Room 74.
107. Rooms 64 and 116 had already been made to match by the Type C architect, of course.
108. This is not canonical Type L, however, because it lacks the leveling courses of *bipedales*. An Othonian date is not precluded by this fact because *bipedales* would not have fit in these small bits of masonry, which probably explains their absence in what is otherwise basically Type L fabric.
109. In Ball 1991 these are described in detail at the end of each heading throughout the Pentagonal Court section, pp. 247–97.

FOUR. THE WEST BLOCK IN NERONIAN PHASES 1 AND 2

110. This is a debatable matter, however, which available evidence cannot resolve unambiguously. The East Suite could have been a part of the Neronian phase 1 design, therefore, and if that was the case, then the division between Neronian phase 1 and the pre-Neronian rooms still in private hands would have been the blocked doorway between Rooms 62 and 65A.
111. The vista before the addition of the Domus Aurea parklands would have been across the roofs of the buildings in the valley below, like the vista of roofs in the second style frescoes from the villa of Publius Fannius Sinistor, now at the Metropolitan Museum in New York.
112. Room 15 also had *opus mixtum* walls inserted to support extra mezzanines in the West End Group (De Romanis, 24–5 and Plate II, the standing remnants of which appear on my Fig. 2, but the window that lit these had to be cut through the Type E fill in Room 15's doorway, indicating that the mezzanines were not an innate feature of Neronian phase 1.
113. The difference is that the Pentagonal Court windows have flat arch lintels and a solid lunette above them, whereas the original West Suite windows ran right through the lunette to the intrados of the vault.
114. There is a just one minor exception that proves the rule, and it is paltry. At the east end of Corridor 19 the Neronian south side wall had been built to a height of just under a meter when it was decided that a doorway would be added. This was cut through the existing masonry and then built into the Neronian fabric above that level. Then, finally, before the Neronian phase 2 decoration, the doorway was once again decided against and filled in.

115. Lancaster 1995, 1.1.9 and 2.7.1 is one such, following Griffin, 197–200, relating Nero's fiscal irresponsibility to capricious oversight of his building projects. Meyboom and Moorman 1992, 145, are another example.
116. I do not have a good photo of this area, but Fabbrini 1986, Fig. 31, shows it clearly.
117. The colonnade and its entablature were spoliated in the Flavian period, at which point the unsupported lunette must have been razed too, leaving a vast arched opening. That opening was filled entirely with Type M masonry in the Trajanic foundations project, as Figure 34.4 illustrates. The bottom edge of the arch was broken away to meet the roughly vertical seam extending up from the Neronian phase 2 side wall below.
118. As Figure 2 indicates, the intervention of Trajan's engineers in the West Court was substantial, but of no concern here because the substructures for the Baths of Trajan are not an occupation phase.
119. Ignoring Corridor 22, which is the spandrel between the Neronian Type E West Suite and the pre-Neronian West End Group.
120. As originally designed, the West Suite was part of the Domus Transitoria, so the later Domus Aurea parklands that provided a vista to the south facing *sellaria* cannot have been the plan when these rooms were originally constructed. The great fire and the parklands themselves swept away whatever was originally here for these rooms to view, however.
121. These are Rooms 63–94 in Jashemski's fold-out plan, on which my Figure 36 is based. The similarity between these rooms and the West Suite is particularly obvious on site, albeit less obviously so when comparing only the plans.
122. It is worth recalling the historical sequence: Neronian phase 2 immediately followed Neronian phase 1, so the chronological change is not great. The changes in design represent a change of mind on the part of the patron and architects, but they are undoubtedly the same people in both phases.
123. We do not know about phase 1 decoration, however, because the only scheme in situ is from phase 2. It is the phase 1 walls and vaults that were definitely completed.
124. Lancaster 1995, 1.1.9.
125. The outer corners of the *sellaria* are less certain. Below lintel level, the corners are like piers formed by the addorsed jambs of three nearby doorways. These are obviously executed as contiguous units without prepared semibonds. Above lintel level truly bonding corners were more desirable than prepared semibonds, but not necessary, and the interleaving brickwork that appears there does not distinguish between these two possibilities.
126. I am concerned here only with the Neronian phases. The pre-Neronian Type C contribution to Room 36 is described in Chapter 3.3.
127. This is in keeping with the literary tradition, of course.
128. Meyboom and Moorman 1992, 141, Fig. 18, show this in Room 24, which is in error.
129. Moorman 1995, 404, argues that the cross walls and side walls are all of one phase despite the differing masonry and the rough nonbonding corners. He claims they "were done by specialised masons with expertise in producing rounded structures which were rare and new at the time". This must be rejected on several grounds. First, shallow apses of single radius are easy to build and were commonplace by the Neronian period. Any mason could easily lay these simple shapes; specialists were not needed. Second, we also have an example of what Neronian masons *did* do when faced with a truly challenging passage, the apse of compound radius in Room 51. Here they used a specialized masonry (Type G), with small bricks and dense coursing perfect for difficult shapes. The fact that this masonry was not used in the shallow apses of Rooms 25 and 33 proves that Nero's masons knew that no

- special procedures were needed. Third, the masonry of the cross walls is Type F, which is actually coarser and sloppier than the Type E of the side walls. It is certainly not the work of an elite corps.
130. Lancaster 1995, 1.1.9, notes, correctly, that the vaults above have formwork imprints that span right over the tops of the cross walls. She concludes that the apsidal cross walls are part of one overall project that was simply assembled in steps, with the side walls and vaults built first and the cross walls added later. Her ratiocination is flawed, however. Certainly the formwork imprints do indicate that the vaults were constructed first, and the cross walls added beneath them. As I have already noted, this was standard Neronian phase 1 practice throughout the West Suite. The problem is that the question concerning the cross walls does not have to do with phase 1 alone, but with whether the standing apsidal cross walls are original to phase 1 or were replaced in phase 2. In both of those cases the vaults came first, so the formwork evidence does not distinguish between the two possible dates for the cross walls; the vault evidence is not germane to the question. The valid evidence is the way the cross walls meet up with the side walls.
 131. Meyboom and Moorman 1992, 140–2 and Fig. 18, Moorman 1995, 404, and Lancaster 1995, 1.1.9, do not recognize the two phases in Rooms 27–32, although none addresses the actual masonry evidence. Because the evidence in situ can be checked easily, and because my study of it has been both detailed and systematic, I disagree with them confidently.
 132. Lancaster 1995, 1.1.9, and 2.7.1.
 133. The columns carried lintels of concrete, with flat arches and travertine imposts. Lancaster 1995, 1.1.6, discusses the imposts throughout the Esquiline Wing. My own studies confirm her conclusions, but add nothing to them. If the colonnade had an entablature of canonical design it was applied to the concrete lintels as revetment.
 134. Although Room 43 is still filled in, its waterworks are indubitable because their drain runs through Room 46.
 135. The decoration is a vexed question, however, because the obviously splendid decoration in Room 44 is definitely post-Neronian, at least on the walls and vaults above the revetment level, whereas the comparable program in Room 45 is undatable but most likely post-Neronian too.
 136. Literary sources do not describe the living quarters for Nero, his family, his retainers or his guests (Suetonius, *Nero*, XXV, mentions the bedrooms, but does not locate or describe them).
 137. Ball 1991, 139–40.
 138. I had made this change of mind already in Ball 1994, 214–15. Although I consider this design analogy between the Nymphaeum Suite and Roman domestic architecture to be obvious, it is not an opinion held unanimously by all scholars; see, for example, Wataghin-Cantino, 115.
 139. Although, as Dwyer, 25–48, notes, the definition of the atrium house type was considerably less precise in practice than has been assumed by theorists, including Vitruvius. Dwyer notes that usage patterns do account for considerable similarity as well, but minor variation was entirely appropriate, even normal, and especially prevalent during the reign of Nero (i.e., after the earthquake of A.D. 62 in Pompeii). The traditional atrium house type was commonly modified to make the accommodations more cozy, practical or luxurious, depending on need. Certainly these are considerations that mattered also to Nero, so we do not have to assume, a priori, that Nero must necessarily make a slavish copy of a typical atrium house design. Even so, it is interesting how closely the first phase of the Nymphaeum Suite followed the atrium house canon.

140. Ignoring the post-Othonian reuse for lowly purposes. After Neronian phase 1, there were two phases occupied by an emperor, Neronian phase 2 Type F and Othonian Type L.
141. The grotto decoration is discussed by Sear 1977, 90–2, Lavagne 1970, 673–721, and Lavagne 1988, 579–84. I describe it later. My own study of the masonry chronology indicates that the grotto decoration of Room 45 could be either Neronian phase 2 or Othonian (probably the latter), but it cannot be Neronian phase 1. In Room 44 the grotto decoration is Othonian because it is applied to the distinctive Othonian Type L masonry.
142. I have already discussed the similarity between the West Suite and the line of rooms next to the large pool in the villa at Oplontis. At Oplontis those rooms were on one side of a garden at right angles to the main axis through the atrium group, identical to the relationship between the West Suite and the Nymphaeum Suite. Oplontis could also serve as a *comparandum* for the main atrium core of the Nymphaeum Suite just as well as the Villa of the Mysteries, but I choose the latter both because it is closer in some details and because having several *comparanda*, consistent in most details, helps confirm that there is a general type for Roman luxury villas.
143. The configuration is uncommon in true *atrium* houses within Pompeii, where building lots tend to be narrow, but examples do exist, such as the House of the Surgeon. Lavagne 1988, 579–80, notes the crossing of these several major axes in Rooms 44 and 45, arguing that this was intended to enhance the significance of the Nymphaeum Suite as a grotto motif. Lavagne is right to note the convergence of these major axes, and they certainly did conduct a viewer's attention toward the Nymphaeum Suite, but they were not originally created to emphasize a grotto. They are the axes that typically converge on the atrium in a villa. These axes were established in phase 1 and remained in place thereafter, converging on any new design later added in the Nymphaeum Suite, in this case specifically the grotto motif.
144. Zander 1958, 62, notes the similarity.
145. Meyer, 101 ff., provides a good sense of how Roman patricians other than those of Pompeii designed their houses. The examples on page 104 are particularly illuminating, demonstrating continuity in design and conception throughout the western empire and over the course of several centuries. The slight variability from city to city is valuable because it sieves out the features that remain consistent. These consistent features may then be regarded as typical. It is precisely these that appear in the Nymphaeum Suite.
146. I have not studied Room 43, because it is still filled in. Fabbrini 1983, Plate II, reconstructs it as apsidal, pendant to the apsidal Room 51. This is a logical suggestion, widely cited by other scholars, but it cannot be right. The Type D project had a diagonal wall running through the area of Room 43, which remained throughout the history of the Esquiline Wing (the east side of Room 46 is the south end of this wall). It appears on Figure 29 and can still be seen through the windows in Room 42. Room 43 was never apsidal and did not match Room 51. Further study is obviously needed. Part of the disparity derives from the fact that the current design of Room 51, including the apse itself, dates to Neronian phase 2, not phase 1. Also, in phase 1 Room 45's side windows were skylights set high in the walls, precluding a view into Rooms 43 and 51 at all. I discuss the tortuous masonry evidence later in the chapter. Originally the diagonal wall in Room 43 was vaguely pendant to the back end of Room 66 (also pre-Neronian) intruding into Room 51. Rooms 43 and 51 would therefore have been more-or-less symmetrical, certainly close enough for what little could be seen from Room 45 through high skylights. The asymmetry only appeared when Room 51 was modified in Neronian phase 2, both because that was when lower level windows were installed, giving a view into Rooms 43 and 51 for the first time and

- because that was when Room 51 was changed to its apsidal design, as described later. The possibly Neronian date for Room 45's grotto motif may explain why asymmetry between Rooms 43 and 51 became acceptable at this point.
147. The existence of a staircase in this location was postulated by Zander 1958, 52 (item e). Excavation was completed in 1965, briefly reported by Zander 1965, 158. There was also a campaign of vault restorations starting in 1954, presumably including the modern ceiling in Room 45A, but the modern ceiling of Staircase 38 was probably later (the area was still unexcavated at the time of Zander 1958).
 148. Fabbrini 1982, *passim*, and Fabbrini 1995, 60.
 149. As Figure 5 shows, much of the Nymphaeum Suite, was unavailable for use as a *piano nobile* because of the openings over Rooms 43, 44, 45A and 51.
 150. The only other known staircase in the Esquiline Wing is the small, awkward one in Room 141.
 151. MacDonald, 34.
 152. This is true regardless of the unflattering nature of Nero's literary portrait; had he only a fraction of the strange ego described by the Latin authors, this exegesis would still be valid.
 153. Room 1 on MacDonald, Plate 58.
 154. Figures 29 and 30 illustrate the lowest ramp of the staircase north of the *spina*. When that decayed it exposed the irregular space under the ramp, which is what appears in the state plan of the Nymphaeum Suite (Fig. 42).
 155. The Trajanic modifications do not come under my purview, but they can be described briefly. The project consisted of a water channel, either a drain or aqueduct, that passed at a high level through Rooms 40, 41, 42, 46, 70, 71, 73 and 74. Staircase 38 is the only area where it was supported by a Trajanic vault. Elsewhere, probably, the rooms were simply backfilled and the drain was set into that. When the rooms were excavated, leaving the drain unsupported, the drain was removed too, leaving holes high in the walls that are cross sections of the *specus*. The fact that the top landing of Staircase 38 was supported by an added arch suggests that the staircase had not been filled in. If so, it may still have had some function in the Trajanic period, perhaps confirming that part of the Esquiline Wing was still in use, as Anderson, 505, has suggested.
 156. Room 43 is still mostly filled in. It was partially excavated in 1965, as reported by Zander 1965, 157–8, at which time the oblique wall still visible through the window from Room 42 was discovered. Zander speculates that Room 43 was an open court pendant to Room 51, a motif taken up by Fabbrini as I earlier described. I have not studied Room 43 myself and do not describe it in detail.
 157. The masonry in Rooms 41 and 42 are an interesting exception. The masonry is all Type E, but each pier or wall segment has its own tightly defined density. Room 41, for example, has one pier of 40-mm bricks laid at 17 courses per meter and another of 35-mm bricks laid at nearly 19 courses per meter. Then, throughout Rooms 41 and 42, there are other passages covering the continuum between. This is an extremely rare occurrence in the Esquiline Wing. Apparently the piers and wall segments were assigned to different masons, each with his own little pile of bricks, paying no attention to the density standards of the others. Because these rooms do not have long, flat walls, at least not below lintel level, dividing the work into a series of small separate projects makes reasonable sense. The only exception is the wall between Rooms 40 and 41. This is a long wall whose facing is contiguous with the south side of staircase 38 and the rest of Room 40. This entire unit is perfectly canonical Type E, all consistent in brick thicknesses and densities. Obviously the foremen provided exactly as much oversight as a given task required, wasting no effort where it served no

- purpose. In general, Type E is far too consistent for the hands of individual masons or gangs to be identified, but in Rooms 41 and 42 that might be possible.
158. Room 42 is different because it is a corridor of the same width as Room 45A, which was originally hypaethral. The entire small lunette between Rooms 42 and 45A was open to let light into Room 42. Frescoes obscure whether this was the original configuration. Because Room 42 later had a mezzanine inserted, it is possible the window was enlarged (or created) to light this. The mezzanine was also lit from the hypaethral Room 43, however, so the lunette skylight between Rooms 42 and 45A is difficult to explain.
 159. Meyboom and Moorman 1992, Fig. 18, indicates the mezzanine in Room 42, but not in Room 40.
 160. In Room 42 this is well preserved – and fabulous. The inserted mezzanine cut the original decoration. The interior of the mezzanine had its own, much cruder yellow-ground fresco scheme, lacking relief stucco.
 161. The rooms south of Room 45 proper (i.e., Rooms 51 and 52) are excluded because they have more complex masonry chronologies and must be considered in greater detail.
 162. Trimming Type B out of the way was not completed in Room 55, probably regarded as more trouble than it was worth.
 163. Numerous minor complexities in the masonry of the south Nymphaeum Suite are being ignored at this point because they have no bearing on the Neronian history of the palace. See Ball 1991, 191–205, for complete detail. The most important of these occur in Courtyard 51, described later in the chapter.
 164. Room 54 to the south of Room 48, in the same tube, might be thought of as a normal room if only its dimensions in plan are considered, but it was really a dead space, largely unlit. Room 54 is analogous to Room 30 in the West Suite in that they both share a single vaulted space with a much more important room. The important rooms used as much of the space as they needed, and Rooms 30 and 54 comprise whatever space was left over.
 165. Meyboom and Moorman 1992, n. 216, argue that the Nymphaeum Suite plan cannot be based on the atrium and peristyle of Roman luxury villas because the access between the atrium (Room 44) and peristyle (West Court) is too limited. This makes no sense to me. First, the amount of access between atrium and peristyle is not a definitive factor as to whether a given design is based on a villa atrium. Second, the examples just cited are obviously similar to the Nymphaeum Suite in terms of the access between atrium and courtyard. Third, and most perplexing, the actual access between Room 44 and the West Court (20) is, in fact, gaping. It was the full 50-foot width of Room 44, with five, 10-foot interaxials. Had Nero felt the need, there was room to march five elephants abreast into Room 44. This is not limited access.
 166. *Alae* are rare in villa atriums. The symmetrical arrangement of doorways around the large openings for Rooms 40 and 48 is analogous to *scenae frons* design, as found in the *faux* doorways painted in the atrium at Oplontis.
 167. There is enough of the Type E wall above the colonnade, at both ends, to prove that there were only flat arch lintels between the columns, but not half-round relieving arches above them.
 168. I did not put columns around the *impluvium* because the Trajanic foundation wall in the middle of Room 44 has swept away the evidence (assuming anything from phase 1 survived phase 2). Not knowing what columns to draw, I took the easiest option and drew none, but I do not intend this to make a selection among the various *atrium* types defined by Vitruvius.

169. MacDonald, 21–4. Current scholarly opinion tends to redate this vestibule earlier, as part of a Julio-Claudian patrician house. If that is true, it does not change either MacDonald's argument or mine. The *Domus Transitoria* would be a *terminus ante quem* for the vestibule, in which case the vestibule's design motifs would still be available to Severus and Celer. Indeed, if this motif is not part of the *Domus Transitoria* itself, then it actually strengthens my argument that the *Domus Transitoria* started out with relatively common features of patrician domestic design; this would be yet another example. See, e.g., Morricone, *passim*, and De Vos, *passim*.
170. The actual height of the vault cannot be measured directly, both because it no longer exists and because the crowns of the great tile arches at its ends are not accessible, imbedded in Trajanic foundation vaults in the West Court and hidden above the modern flat roof in Room 45A. The disparity is approximately 6 feet (i.e., the crown of the intrados was about 40 feet above the floor, in a vault spanning 46 feet).
171. Chapter 6.3 is specifically devoted to this topic, using the evidence presented here.
172. Figures 5 and 70 are my own simplified, schematic constructs based on the much more detailed descriptions and illustrations in Fabbrini 1982.
173. Tacitus, *Annals* 15.
174. Suetonius, *Ortho*, VII.
175. *Inst. Neg.* 70.2072 in the *fototeca* of the German Archaeological Institute in Rome (Lavagne 1970, Fig. 8) shows the broken off courses clearly.
176. This is admittedly moot. Others have reconstructed various coverings for Room 45A (e.g., Zander 1958, Figs. 7 and 8, reconstructs a north-south barrel vault running the length of Room 45A, projecting above the surrounding roof level), but without a light source in Room 45A the windows in W44.45 make no sense. The brick crown moldings in Room 45A are appropriate for a hypaethral area too, identical to the brick crown moldings in Room 51.
177. The load would have been similar, not crushing in either case. Room 44 had no actual Trajanic architecture above it, but supported only the platform fill in the open space before the hemicycle. Room 128 held mostly platform fill as well, but it may also have supported some of the smaller structures of the southeast perimeter complex. So if the Trajanic loads were different at all, Room 128 had the greater burden.
178. Because there has been no traceable Neronian phase 1 decoration throughout the West Block, one presumes none was ever applied in Room 44 either, but in fact the phase 1 walls are entirely obscured by phase 2 and Trajanic masonry, so the point is moot. Furthermore, there is evidence for Neronian phase 1 decoration in Room 45, so we know decorators were active here before the fire.
179. MacDonald, Plate 40, Room 12.
180. Fabbrini 1982, *passim*. This is addressed only to the East Block and does not cover Room 45 specifically, but Fabbrini found a reflecting pool (my Fig. 70, top) that served both as part of the decor of the *piano nobile* and as the water source for the cascade descending into the Octagon Suite below, through Corridor 92 and Room 102.
181. Pace Moorman 1995, n. 8, multilevel waterworks like these in Room 45 were commonplace in fancy Roman rooms and gardens of the first century. Nero's nymphaeum court on the palatine, the elliptical fountains in the *Domus Flavia*, numerous Pompeian triclinia with waterworks in the center and the complex waterworks in the gardens of the House of Octavius Quartio in Pompeii are sufficient examples to demonstrate the point.
182. The evidence in Room 46, both its masonry and decoration, could hardly be clearer, but Meyboom and Moorman 1992 provide a confused picture of it, including dating the east

side as both pre-Neronian (their Fig. 18) and Neronian (their Fig. 24). Their discussion of the evidence is not complete, partly because their focus is on broader issues and partly because they are selective as far as which data they choose to consider or ignore. Rather than systematically correct all of their errors individually, I simply note that their interpretation must be discarded; the simple, clear chronology presented here is indeed correct, and it takes full account of all the evidence in the room.

183. Room 46 was not needed for access to Room 43, which was accessible through two doorways in Room 42.
184. Meyboom and Moorman 1992, Fig. 20, is a schematic drawing illustrating the entire east side of Room 46. Only the top half of this is the original white-ground scheme under discussion here. Below that is a yellow-ground dado of less certain date, which will be discussed presently (*ibid.*, Fig. 19).
185. This is my numeration. Fabbrini gives the number 45 to both parts of Room 45 together (Fabbrini 1983, Plate II).
186. Zander 1958, Figs. 7 and 8.
187. There is no evidence of fire damage in the Nymphaeum Suite, however.
188. See also the closer photos in folio T385 at the German Archaeological Institute in Rome: *Inst. Neg.* 70.2110, *Inst. Neg.* 70.2106, *Inst. Neg.* 70.2109, *Inst. Neg.* 70.2112 and *Inst. Neg.* 70.2113.
189. Room 45 is also unique in that it is the only room in the Esquiline Wing with decoration from Neronian phase 1. All other Neronian decoration covers identifiably phase 2 masonry. Room 45 does not tell us anything about the details of the phase 1 scheme, however. It is also possible that some of the decoration in service corridors dates to phase 1 (e.g., Corridors 19, 79 and 92), but if so the chronology is not demonstrable with available evidence.
190. The putative thickening of the walls in phase 2 only reduced the span by two feet. That would have reduced the height of the vault, and therefore raised its springing level, by just one foot.
191. When the original high windows and the facing around them were cut out the flat arch lintel of the center window fell away, as Figure 54.2 illustrates. Then when the wall around and above the new, lower relieving arches was faced, the new facing also filled the area originally occupied by the lost flat arch, using normal horizontal courses instead of the original configuration of the flat arch tiles. The seams defining the perimeter of the missing flat arch remain, as illustrated in Figures 54.3 and 55.
192. An identical chronology recurs in Room 51, described presently, including the fact that remnants of earlier windows high in the walls have later masonry inserted below them. The evidence is better in Room 51, including parts of the actual window apertures.
193. Described in Sear 1977, 90–2, Lavagne 1970, *passim*, and Lavagne 1988, 581–2. The Tiberian grotto at Sperlonga is the most obvious Roman comparison for Room 45, but the Claudian *punte epitafeo* nymphaeum at Baia is closer in design, spirit and mythological motif. Artificial grottoes date back at least to Hellenistic times, for example, Hans Lauter, “*Kunst und Landschaft-ein Beitrag zum rhodischen Hellenismus*”, *Antike Kunst*, 15, 1972, 49–59, especially pages 51–2. (I thank Professor E. E. Rice for calling this reference to my attention).
194. The tesserae are not visible in Figure 56 but appear in *DAI Inst. Neg.* 70.2110.
195. Lavagne 1988, 581–2.
196. Room 69 does not look like a corridor in plan because it is a spandrel (described presently), but its function from Nero’s point of view was a space through which he would only pass quickly. Room 52 was designed not to be lit from Room 51.

197. As already noted Room 43 will not be discussed because it remains filled in and is therefore inaccessible.
198. Some necessary dogma: Room 51 demands greater attention, not less. The evidence is voluminous and complex, but it is not random or chaotic; it does make sense if studied in its entirety. Dismissing Room 51 as merely chaotic is tempting, but this is not scholarship. Each feature must be studied and, when this is done, each feature does make sense both in its own right and as part of the whole ensemble of data. The nature of the evidence is not the problem, only its volume and complexity. This does constitute a considerable bother, but Room 51 is worth it. This is the chronological crux of the West Block. I exhort readers to note that my explication describes, illustrates and accounts for *every* feature throughout the Neronian period. This is necessarily laborious, something that cannot be done simply and easily, but in the end it will be clear that, in fact, the myriad bits in Room 51 do fit together, without ambiguity or contradiction, and in perfect harmony with the masonry evidence of surrounding rooms. Room 51 represents complexity, but not chaos.
199. I have tried not to use my complex system for naming walls, doors and windows according to room number (described in Ball 1994, n. 119). In Room 51, unfortunately, the numbers are necessary because there are many doors and windows that need to be discussed specifically. This is further complicated by the fact that the phase 1 cross wall between Rooms 51 and 51A was deleted in phase 2, changing the room numbers by deleting Room 51A entirely and thereby changing the numbers of the doors and windows too. I address this complexity in as simple a manner as I can by labeling the doors and windows on the drawings and then referring specifically to the drawing where the correct door or window number appears.
200. Lancaster 1995, 1.1.9 and 2.7.1; Meyboom and Moorman 1992, 145; and Griffin, 197–200.
201. Lancaster 1995, 1.1.5.
202. Lavagne 1988, 581–2.
203. The masonry in these filled apertures is an extraordinarily crude fabric, made from reused bricks slapped together with tremendous amounts of low-quality mortar. All surfaces visible from important rooms were hidden by decoration, however, so the masonry had neither structural nor aesthetic significance, and no effort was wasted on making it a quality fabric. It is in marked contrast to the distinctly superior masonry used for the Neronian phase 2 revisions in the West Suite.
204. The masonry of Room 52 itself can be sorted out in detail, but this is a Byzantine exercise from which little is learned. A complete explication appears in Ball 1991, 219–224.

FIVE. THE EAST BLOCK IN NERONIAN PHASE 2

205. Rooms 94–95 have one minor complexity in their masonry, analogous to Rooms 41 and 42. The masonry is canonical Type F, but it includes a component of the thinner Type E bricks, probably left over from the Domus Transitoria project. The masonry densities in Rooms 94 and 95 are therefore inconsistent from sample to sample, spanning the range of densities and brick thicknesses of both Types E and F (notably denser than Type C in either case), but showing no pattern overall. The bricklaying is also sloppier than Neronian standards. Presumably the sloppiness represents hasty construction in an unimportant area, but then one would expect the same for the rest of the Northwest Quarter Rooms (97–100) and the whole Northeast Quarter. Instead, these are made consistently of canonical Type F, without the variations and with less sloppiness. A possible explanation for Rooms 94–95 is the fact that these are the only Type F rooms that do not physically bond with the Octagon

- Suite, separated from it by Corridor 93, whereas the rest of the East Block was integral and therefore had to share the Octagon Suite's high standard.
206. When I say, "all surrounding areas", this is a remarkably comprehensive statement. It includes the whole Octagon Suite to the west, the area of Rooms 129–132 to the south, the south side of Corridor 92 to the north (with some ambiguities, but bonding with Rooms 107 and 112) and the interiors of Rooms 138–143, to the extent that bonding can be determined from their unfaced vaults. The Northeast Quarter is completely surrounded by contiguous masonry, all Type F wherever it can be read.
 207. The location of the Trajanic foundation wall at the far east end of this plan is approximate, marked only with a single line. It is accessible from inside the Esquiline Wing in Corridor 142 (two places) and Room 138, but it does not appear in Room 144. Figure 2 gives a clearer sense of the relationship between the Esquiline Wing and the Baths of Trajan.
 208. The originally splendid decoration of Room 129 has been in much better condition than it was when I studied it in 1988; see, for example, photo E54492 in the *Gabinetto Fotografico Nazionale*. Recent cleaning has restored it considerably.
 209. I have not studied Room 111 personally, because it was not accessible to me, nor does the thickened wall appear in any of my plans, but Rocco, Fig. 9, illustrates the feature.
 210. Room 129 is often cited as the find spot for the famous Laöcoön group now in the Vatican (e.g., Warden, 277, and note 40). This is not possible. The documentation is assembled by Weege, 137–8 and 229–39. The original sources for its rediscovery say only that the piece came from an underground room in an orchard on the Esquiline Hill. The setting is known, albeit vaguely. It is in the area of the *sette salle*, far to the east. Weege, 203, Fig. 49, and 238, Fig. 76, also shows that Room 129 was still filled in to the springing line of the vaults in 1913, accessible via crawl holes on either side of the conch. Thus, in addition to the fact that there was never room in the shallow apse of Room 129 for a group the size of the Laöcoön, and that if it had been in Room 129 it would still have been deeply buried up to the early twentieth century, the Laöcoön simply would not have fit through the crawl holes that gave access to this room. More important, Pliny (*N.H.* XXXIV, 84) says the Domus Aurea was stripped of its artworks under Vespasian, and we know from archaeological evidence that all reusable revetment, pavement and architectural stonework (the colonnades, pilasters etc.) were systematically removed in antiquity. The spoliators could not have overlooked the Laöcoön. The Baths of Trajan are a much more likely source for the piece.
 211. For a detailed description, see Ball 1991, 332–8.
 212. Fabbrini 1982, 22–4, and Fabbrini 1983, 178–9.
 213. Ball 1991, 336–7.
 214. Fabbrini 1995, 56.
 215. Originally Fabbrini 1983, Plate III, with a more refined version in Fabbrini 1995, Fig. 22. The version in Fabbrini 1983 was untenable because it mirrored the entire West Block and Pentagonal Court complex, including pre-Neronian elements such as the Type D complex. Certainly Severus and Celer would not have copied these, and the Fabbrini 1995 version is correct to eliminate them. My commentary here concerns only the later version.
 216. The remains east of the East Block appear in Lanciani, 1893–1901, Plates 23 and 30. Fabbrini 1983, Fig. 6, reproduces this.
 217. Here a stern warning is required. Because the Octagon Suite is by far the most important part of the Esquiline Wing, a reader not wishing to commit to a detailed study of the whole building might turn directly to this discussion of the Octagon Suite. *This is a fundamental*

- error*. Doing so, *a priori*, means that the reader has failed to understand the Octagon Suite. The most important masonry evidence for the Octagon Suite is not in the East Block at all, but in the Nymphaeum Suite. Understanding the masonry chronology of the Nymphaeum Suite is a necessary prerequisite to making sense of both this chapter and Chapter 6.1. Shy of that, the reader may as well not bother, for she or he will learn little and understand less. If I could think how to state this more bluntly, I would. *Caveat lector*.
218. Rooms 103–111 in the Northeast Quarter, still filled in, remain the only unstudied area. All accessible rooms adjacent to them are integral both to them and to the Octagon Suite, including Rooms 102 and 129–132.
 219. There was no additional masonry and just one modification of any sort, improving the lighting in Rooms 123 and 125 after they had been decorated, described presently.
 220. The south façade of the Octagon Suite had most of its apertures filled, but with unfaced concrete, so it is unclear if this was for lowly reuse, Trajanic foundations or something else (even perhaps modern). Trajanic Type M facing only appears at the outer edges of the East Block, in Rooms 78–90, 116 and 132, but the interior of the Octagon Suite was not touched by any later phase.
 221. Rocco, Fig. 13, is a good reconstruction of the revetment, including an entablature motif on the lintels. He leaves out the vault decoration, which cannot be reconstructed in design (Sear 1977, 92, assembles the available evidence). Rocco's reconstruction therefore has a rather severe feeling, but originally the Octagon Suite had a much brighter and more complex essence due to the colorful vaults.
 222. If the Baths of Nero predate the fire, then they, too, will have contributed to the élan of the Octagon Suite, as discussed in Chapter 6.2.
 223. Type F is *III Periodo*, so it lacks the “leveling courses” of later fabrics, which would have divided the project into nonbonding units. *III Periodo opus testaceum* is always integral from floor to ceiling. Division into non-bonding units is achieved with prepared semi-bonds in corners.
 224. MacDonald, Chapter II, especially 39ff, remains the classic treatment.
 225. I should emphasize this point. Figure 71 is not meant to indicate seams between the triangular piers and the surrounding masonry. They are integral; the triangular piers are essentially elaborations of the inner ends of the side walls of the radiating rooms. Because the solid concrete dome does not thrust sideways, however, its weight is born primarily by whatever integral surrounding masonry is adjacent to it. The triangular piers are in that position.
 226. The surrounding area of the *piano nobile* was an open veranda, as illustrated in Figures 5 and 70. This veranda collected rainwater that was shed via downspouts in the piers. The channels for the downspouts were cut after construction. They do not require detailed consideration here, however (for which see Ball 1991, 327–8).
 227. Figure 71.5 requires some explanation, however. It is not a perfectly horizontal section through the dome because the dome already slopes in rather sharply at that level. A truly horizontal section would give the appearance of a very thick dome (similar to Fig. 71.6). The section through the dome in Figure 71.5 is therefore on a line radiating directly through the dome fabric. This gives a truer sense of the shape of the dome and better illustrates the thickened fabric at the corners.
 228. On the other hand, the long thin shape of the lintels makes them relatively weak regardless of what was built above them, so the builders also took the precaution of fortifying them with travertine impost.
 229. Lancaster 1995, 1.1.4, describes the construction process in detail.

SIX. SYNTHESIS: THREE INTERPRETIVE ESSAYS

230. For example, Warden, 273. This refers only to groin vaults in Roman concrete, because it is well known that Pergamene engineers created ashlar groin vaults in the Hellenistic period. See, for example, Charbonneaux et al., 44.
231. One telling example will suffice. Before I started my fieldwork in the Esquiline Wing no one had so much as mentioned the fact that the Nymphaeum Suite *had* vault haunch clerestory windows; no source even gave the motif a name. As far as I know, I am the first to discuss them *per se*; this is certainly true as far as their use in the Nymphaeum Suite is concerned.
232. I have not been able to measure these rooms myself, but published plans such as Fabbrini 1983, tav. II, indicate that they are very similar or identical in size.
233. Fabbrini 1995, Fig. 23, reproduces this drawing.
234. I use the term “Baths of Nero” literally, referring to the baths as originally designed and built under Nero. As revised under Alexander Severus, I call them “*Thermae Neronianae Alexandrinae*”.
235. One exception is the gymnasium, which was included in the Augustan plan to create a kind of aristocratic cultural center in the Campus Martius, but this is far less support than a thermal resort like Baia. The *stagnum* nearby may also have provided something like a plunge bath or the beaches at Baia, although this is by no means certain.
236. The name of the architect (or architects) of the Baths of Nero is not recorded, but I presume, with most scholars, that Severus and Celer designed it too. The design of the Baths of Nero is clever and simple, yet revolutionary, therefore perfectly in character for them. I use their names in this essay, therefore, rather than the blander “Nero’s architects” because if there actually were another architect involved he was just as visionary as they were, and they would undoubtedly have learned from him just as readily as they learned from their own clever work in the Nymphaeum Suite. In this essay I refer commonly to the emperor Alexander Severus, whose name will always include “Alexander” so as not to confuse him with Nero’s architect Severus. Similarly, “Severan” refers exclusively to the Severan dynasty, while the style of Nero’s architect Severus is referred to as “Neronian” (thereby not excluding Celer).
237. I have clarified their drawings to make them more legible. I have inked the faint lines on the originals, exactly as they are, and stippled the areas of solid masonry. The plans are otherwise unchanged.
238. Huelsen, *passim*. My analysis of the baths of Agrippa originated in the 1980s when Huelsen was the most authoritative source. More recent scholarship closely parallels my interpretation, see Haselberger et al., 44–5.
239. The fragment is not only faint, but also broken in some places. Huelsen, abb. 5 (also Yegül, Fig. 143) shows the original form of the fragment. I have inked the extant lines and colored the masonry in solid black. Paired dashed lines indicate where the broken edge of the marble fragment has truncated a wall. My only modification is that I completed the circumference of the rotunda, whose southeast quarter was obliterated on the marble fragment. The south doorway is reconstructed confidently because its west jamb is preserved on the fragment, but if there were originally an off-axis doorway in the southeast quarter, it cannot be reconstructed.
240. Huelsen, abb. 4.
241. The Marble Plan includes two small rooms next to the rotunda complex that appear to be compluviate *atria*. Huelsen rejects these as parts of the actual Baths of Agrippa. This

seems arbitrary to me, indeed invalid, because the inscription clearly is meant to include them. When the missing letters are reconstructed the inscription is not centered on the rotunda, but a little to the left of it, associated with these other rooms as closely as with the rotunda group. The fact that several of these extra rooms are inaccessible from the rotunda group is only an indication of how schematic the Marble Plan is (one of them has no doorways at all). Clearly the Baths of Agrippa had a considerable number of rooms of various sorts.

242. Speculatively, the dome motif may also have been particularly appealing to Nero because of his family connections in the Bay of Naples and because of its titillating association with the notoriously naughty Baia. Whether or not this is true, of course, the Baths of Agrippa were sufficient motivation to use the motif.
243. Martial does indicate that they were popular to some extent (Martial Lib. spec. 3.20 and 3.36), but the contrast between them and the Baths of Nero is patent, both in the architecture and in the literary record.
244. Martial, Epigrams VII, 34, 5.
245. Yegül, 137, provides a synopsis of what is known about both phases of the Baths of Nero. Note 30 discusses the evidence for the Alexandrine phase. Brick stamps also demonstrate that there was an intermediate phase of revisions under Hadrian.
246. Here I am referring to the literary tradition concerning the whole Domus Aurea, not just the Esquiline Wing.
247. Bourne, 50, lists the ancient sources.
248. Bourne, 50. The situation is different from Agrippa's baths and gymnasium, which are known definitely not to be the same thing.
249. Suetonius, *Nero*, XII.
250. The standing remnant is part of one of the northern hemicycles, preserved in the cortile of Piazza Rondanini, 33. The foundations are all below modern ground level. The two grey granite columns now in Piazza Sto. Eustachio were originally excavated in Piazza S. Luigi dei Francesi, so if they actually came from the Baths they are no longer in situ. The easternmost file of columns in the Pantheon porch was rebuilt in the eighteenth century using three grey granite columns that also came from this part of the Campus Martius, presumably from the Baths of Nero, but the Severan style of their capitals suggests they are not of Neronian origin.
251. Yegül, 138–9, recounts the most common modern schools of thought on this issue.
252. Ghini, 395–9.
253. Ghini, 399. As Yegül, 137 and note 30, observes, however, Hadrianic brick stamps have also been found in association with these baths, proving that they cannot be wholly Severan.
254. *Notizie degli Scavi*, 1881, 270–3, suggests that some of the Alexandrine Baths' architectural decoration was re-used Neronian material. This, of course, is common Roman practice too. Available spolia from the original Baths of Nero may also help explain how Alexander Severus could rebuild the baths very quickly, apparently in the two years 226–7. His budget was straitened in a number of ways, not least by the fact that he inherited the depleted treasuries of Caracalla and Elagabalus and used some of his scarce funds to complete the Baths of Caracalla. Building another comparable bath complex at the same time, completely from scratch, in two years is highly unlikely.
255. Delaine, *passim*, is the most important publication. Chapter 2 is her detailed analysis of the system of proportions under discussion here.
256. Delaine discussed the relationships between the proportional systems of the Baths of Caracalla and the other great baths at a session on baths and bathing at the 1995 annual

- conference of the Archaeological Institute of America. This is my source for her commentary on baths other than the Baths of Caracalla.
257. Under Alexander Severus they worked primarily on the parklands and outer perimeter structures, but not on the central bath block, which had been completed under Caracalla.
258. My plan of the Baths of Nero is based on Ghini's and Palladio's plans because they sweep away the fanciful modern reconstructions that are commonly added to the limited archaeological evidence. Scholars have tried to create a full-fledged Imperial bath out of the scanty remains. This process reached its climax with Krencker (Yegül, Fig. 150), whose plan is a florid, fully mature Imperial bath. Krencker does retain much of the essence of Palladio's plan, but he also adds a number of walls, deletes others he finds inconvenient, creates some whole rooms and, especially, inserts numerous gratuitous groin vaults. There is no evidence for any of this, either in Palladio or preserved in the basements of the Campus Martius. The archaeological evidence bespeaks a different and much simpler design, which my reconstruction retains.
259. I disagree with Yegül, 139, who thinks the design is too advanced to be Neronian. The groin vaulted *frigidarium* motif is certainly revolutionary in a Neronian context, but this is because the motif would have to be revolutionary the first time it appeared, no matter when that was. Under Nero, at least, revolutionary design was famously normal, so the groin vaulted *frigidarium* is at least in character in a Neronian context. The alternative is that the motif appeared for the first time under Titus. This is not credible, both because Titus was not a pioneer in anything, least of all the arts, and because the ancient literary sources do not mention it. The effect that the groin-vaulted *frigidarium* had on Roman bath design is the stuff of "What could be better than Nero's Baths?" – something that was certainly never said about Titus, even when Martial was lavishing sycophancy. The evidence from the Esquiline Wing also bears on the Neronian origin of the groin vault in the Baths of Nero, as I discuss presently.
260. Sadly, the foundations are badly preserved in the core of the *frigidarium*, making detailed reconstruction difficult. Parts of two of the corner plunge baths remain and much of a third can be reconstructed based on less substantial archaeological evidence, that is, without depending on Palladio. The rest of the design comes entirely from Palladio's reconstruction. Overall Palladio must be right, because there is enough evidence to confirm that a typical groin-vaulted *frigidarium* is the only design that fits into this space, with foundations in the known locations, but Palladio's design is also questionable in some details. Most significantly, it is asymmetrical from north to south, with the north corner plunge baths different from the south. If this is original to the ancient design, it is unique. Palladian invention is one possible explanation, as is some oddity resulting from Severan revisions not perfectly mirroring the Neronian originals. Without better evidence to resolve this question, I have left the design in Figure 82 as Palladio drew it, the only evidence I have.
261. Krencker's plan of the areas flanking the *frigidarium* is misleading because he "corrects" the irregularities in Palladio's plan to reconstruct his own notion of what he thought ought to have been. As Ghini's plan shows, however, Palladio was right. The spaces flanking the *frigidarium* were irregular in shape, but symmetrical from side to side. They were not the regular rectangles that Krencker reconstructs, so they cannot have been covered with the line of consistent groin vaults that Krencker gives them. I tend to think that the larger, outermost spaces were hypaethral, perhaps as lesser *palaestrae*, or simply convenient courtyards. These areas have few preserved remains, however, including in Palladio's plans, so they cannot be reconstructed with certitude.
262. Yegül, 139.

263. Notably, too, the *calidarium* is one of the few places in the Baths of Nero where a groin vault makes sense, creating a neatly contiguous link between the longitudinal rectangle with the apse in the south end and the laterally projecting *exedrae* where I have reconstructed the soaking baths.
264. The design of the steps descending into the *natatio* on my reconstruction is speculative, but their locations are certain. The colonnades flanking the *natatio* are valid, both appearing in Palladio's plan and attested in Ghini's investigations by separate foundations for each column. The latter is normal Neronian practice, at least in the Esquiline Wing, whereas DeLaine has demonstrated that Severan practice was for a contiguous foundation under a whole colonnade (including, e.g., foundations crossing the empty space of the *frigidarium* and *natatio* of the Baths of Caracalla, even though they support columns only on the outer ends of the foundations; DeLaine, 63–6).
265. Again, it is important to consider Ghini's plan and not Krencker's. The latter does have innumerable features that would be astonishingly novel if they were of Neronian date, but are, in fact, modern.
266. The apsidal *exedrae* in the north corners may be thought of as novel too, albeit immaterial for the design because they simply project away from the building into open space. They may just as likely be Severan additions; in the Neronian context they are somewhat out of character.
267. The overall symmetry of the whole bath complex is also a novelty, discussed *per se* presently.
268. The Baths of Constantine could be added to the list, ignoring certain oddities, but it would contribute nothing to the discussion. The Baths of Trajan Decius, recently clarified by La Follette, *passim*, are apparently of the Imperial type too, albeit anomalous and on a minor scale. In any case, they are too poorly preserved to be of use here. Imperial type baths appear throughout the rest of the Roman empire, of course, but I concentrate on Rome because there can be no doubt that each architect was aware of the prior tradition there; the baths in question stood. This provides a solid context for the Baths of Nero.
269. The Baths of Titus lack the axial *natatio*, however.
270. The terrace retaining wall forming the common back (west) end wall of the West End Group rooms (Rooms 7–17) is also apparently the foundation for the east side of the Baths of Titus. At the very least, the Baths of Titus were built on a Neronian substructure. This does not prove that the two were part of the same original project, but their relationship is certainly intimate.
271. Suetonius, *Titus*, VII, singles this out for especial praise. Yegül, 139, says they were started under Titus; certainly Titus's own project was not of Vespaianic origin or this fact would be noted in the sources, but nothing in the literature precludes, or even addresses, the issue of a Neronian origin for the building. Bourne, 61, lists the ancient sources, of which Martial, *Lib. Spec.*, 2.7, is the most important. If the Baths of Titus were actually built first by Nero, Martial would certainly be wise enough not to remind anyone of that fact.
272. Yegül, 139–42.
273. Yegül, 142.
274. Yegül, Fig. 152.
275. Groin vaults could also be made to work at the bottom of the grand staircase, but they would have conferred no advantage and were certainly not necessary.
276. Roman topography may be helpful here, specifically the slope of the Oppian ridge into which the Baths of Titus were terraced. The topography of the Flavian period is poorly known, but the current topography of the site continues to rise to the north, toward the church of S. Pietro in Vincoli. If that reflects the ancient surface, then the ground level

of the Esquiline was considerably higher than the floor level of the baths north of the *frigidarium*. Anything to the north of that must have been set either at a higher level or into a deep terrace cutting. Either of these is possible, but both are awkward and worth avoiding. Probably, therefore, the plan ends at the north side of the *frigidarium*; that is, there was no *natatio* further north, now lost. There may have been something to the north, however, if, nothing more than an alley, because Palladio's design also includes two north-facing apses to the north of the *frigidarium*. These would be hard to account for otherwise (unless, they were figments of Palladio's imagination).

277. More evidence in this respect would be very interesting indeed. For instance, if the Baths of Titus never had their own *natatio*, and if the basic design is of Neronian origin as suggested here, then Nero's *stagnum* at the bottom of the grand south staircase might originally have served the function of a plunge bath. That would be analogous to the beaches at Baia and, probably, the *stagnum* next to the Baths of Agrippa in the Campus Martius. It would also be yet another conspicuously primitive feature in the Baths of Titus, further distinguishing them from the mature Imperial bath type that began with the Baths of Trajan. Then again, for the Baths of Titus, "more evidence" is the problem.
278. Because Suetonius, *Nero*, XXXI, says Nero's private baths in the Domus Aurea were provided with sulfur water and seawater, it is charming, albeit admittedly speculative, to surmise that there was one *natatio* for each. The anomalies in the Baths of Titus are not out of character for this, and perhaps the *calidarium* was split for the same reason.
279. The modification of the West End Group (Rooms 7–17) for slave quarters might also have been intended to house the staff for the adjacent baths. The conversion of these rooms is of Neronian date.
280. In Figure 84 I have eliminated the apsidal colonnades that Palladio reconstructed in the south windows. Palladio loved this motif and inserted it profligately in his reconstructions of other buildings. I have no confidence in it whenever I see it in a Palladian design.

One fascinating ancillary detail is the pair of shallow apses in the northern corners of the terrace. These open inward, facing across the park to the sides of the *calidarium*. It is a rare motif and visually problematic because the symmetry is only visible from a tiny area just at the top of the grand staircase. Nowhere else on the site can both apses be seen at once. Conversely, in most of the park only one of the apses can be seen and it faces the flank of the *calidarium*, clearly of different design. These apses might therefore be dismissed as Palladian fantasy, but in fact that motif may appear in the Esquiline Wing (unbeknownst to Palladio). As Figures 5 (upper images) and 70 indicate, Fabbrini found a remnant of a curved wall inserted at the southwest corner of the East Block *piano nobile*. This is difficult to reconstruct and is not necessarily even part of the Neronian design, but it is not part of a completely round motif; it cannot have been much more than an open, inward-facing apse, articulating the outer corner of the *piano nobile*. If there was an answering apse at the southeast corner (nothing is preserved there, unfortunately), then the motif of a pair of apses facing each other across a large open terrace would be preceded in the Esquiline Wing. On the other hand, because we cannot exclude Titus from the East Block, the motif might just as validly be a rare Flavian revision.

281. I emphasize that I am only thinking in terms of the context of the Imperial bath type. In absolute terms, of course, Roman baths could be much smaller than the Baths of Titus. It takes the other, much larger baths (Nero and Agrippa) to make the Baths of Titus look small. Then again, during Titus's reign those grander baths did exist; comparison was inevitable.
282. Figure 86 is a reasonably accurate reconstruction of the elevation of one *frigidarium* bay from the Baths of Diocletian. Because Vanvitelli's revisions of the baths to make the church

- of S. M. degli Angeli now obscure the original design, the elevation was reconstructed using computer graphics. Photos of the interior and exterior elevations were corrected for perspective, and then the exterior windows from the clerestory and aisle were pasted onto the interior photo to give the correct shape of the original window perimeters. This composite was then traced, with the horizontal and vertical lines corrected, to create the schematic elevation in Figure 86.
283. I am ignoring overall proportions here. Rooms 123 and 125 are extremely tall relative to their plan area because their vaults had to be set at the prevailing roof level of the whole East Block. This was not a factor in designing the interior elevation of a groin vaulted *frigidarium*, whose proportions can therefore be made more harmonious.
284. MacDonald, Chapter VI.
285. By the same token, I do not include myriad repetitive citations to MacDonald; his essay is the basis for mine throughout.
286. Tacitus, *Ann.*, XV. xlii.
287. This is not to deny that the Romans revered famous old-master artists, as the endless citations of the elder Pliny makes clear, but in contemporary art in the Imperial period, the artists were treated as technicians and craftsmen, anonymous because the styles were canonical and the stylistic nuances less important than the message. When modern scholars also treat the individual artists as inconsequential, little is lost.
288. Following MacDonald, I concentrate on the Palatine for several reasons, preservation most of all. In addition, I tend to think Vespasian's architecture is relatively unimaginative (the *Templum Pacis* and Colosseum are huge, but preceded in nearly every detail, for instance). As far as the evolution of Roman architecture is concerned, therefore, Vespasian was rather similar to Augustus, no doubt on purpose. If Vespasian were considered in isolation, it would likely appear that the Neronian architectural revolution fizzled in his hands, in the same way that the late Republican achievements were not followed under Augustus. I also ignore the Baths of Titus because I am not convinced their original design is Flavian at all. Domitian picked up the Neronian torch, however, so, with MacDonald, I jump to him. Also, because both the Flavian palace and the Domus Aurea are Imperial residences, built for demanding autocrats, they represent sequential essays in the same type of building, a perfect comparison.
289. The only substantial solid spandrels are underground and inaccessible, surrounding the two domed rooms on the north side of the Domus Augustiana pelta court. Oddly shaped spandrel rooms appear here and there between apses and rectangular rooms adjacent to them. The most notable example is in the Domus Flavia, flanking the apse of the so-called basilica in the north corner. These invariably served as passageways, occupied only fleetingly.
290. MacDonald, pl. 40, respectively, Rooms 12 and 5.
291. I refer to the building south of the *macellum*. The name of the building is unknown, but I follow J. Dobbins, *passim*, in both name and late date, between the earthquake of A.D. 62 and the eruption of Vesuvius in A.D. 79.
292. The Forum of Trajan can be ignored in this context, both because it is mostly trabeated and because its design is even more obviously derivative of existing ideas. Given the precedents from the Forum of Augustus, the Augustan libraries on the Palatine, Republican basilicas and all the commonplace types of Imperial figural monuments, everything in the Forum of Trajan is preceded except for the Column of Trajan, as far as we know.
293. It is unclear what had to be cut away, but at the lowest levels it was probably the actual bedrock of the Quirinal, leaving a surface similar to the great Trajanic cutting at Terracina.

The radius of the cutting would have been little greater than the concrete façade of the hemicycle, because the hemicycle shops are extremely shallow, no doubt constrained by the cutting. Lancaster 2000, Fig. 10, demonstrates these points. As Lancaster also demonstrates (*ibid.*, 765), the plan of the hemicycle is in fact not of consistent radius, but deviates from a perfect circle by as much as 0.87 m. In a project this vast, the deviation is not detectable at a glance, but the deviation proves that Trajan's architects did not care about absolute perfection here. It also suggests that the construction of the hemicycle postdates the construction of the forum apse in front of it, or else it would have been a trivial matter to lay out a perfectly cylindrical shape for the hemicycle. Alternatively, the layout of the hemicycle may respond in shape to the original cutting in the Quirinal bedrock that cleared the site for the forum. If that was done with the same precision as the cliff cutting at Terracina, then it would most likely have been very close to a cylindrical shape, certainly close enough that the decorative façade of the hemicycle could be laid out simply by measuring a consistent distance from the surface of the cutting.

294. The details of the issue of the “baroque” style in Roman architecture are of little consequence here, that is, I have nothing to add to Lyttleton, *passim*. The point that matters to me is that these motifs considerably predate Trajan and he therefore did not need to invent them.
295. But not huge: the central span is just 30 feet, much smaller than the 50-foot vaults of Rooms 44 and 128 in the Esquiline Wing, and tiny compared to the groin vaulted *frigidaria* in the Baths of Nero and Baths of Trajan.
296. The line of shops terraced above the Aula Traiana appear, for example, in MacDonald, Fig. 75 (isometric) and Lancaster 2000, Fig. 21 (section).
297. Dio. 69.
298. Dio. 68, 13.

BIBLIOGRAPHY



Except for the fact that I include authors' whole names when I know them, and place punctuation in its logical order, I follow the concise bibliographic format of the *Journal of Roman Archaeology* (<http://JournalofRomanArch.com>), including, as there specified, abbreviations for journal titles published in the *American Journal of Archaeology*, 104/1, 2000, 3–24, plus current European standard abbreviations for journals not cited in *AJA*.

ANCIENT AUTHORS

- Cassius Dio Cocceianus, *Dio's Roman History*, Loeb trans. Earnest Cary, 1925
Dio Chrysostom, *Discourses in Five Volumes*, vol.4 (Discourses 37–60), Loeb trans. H. Lamar Crosby 1962
Frontinus, *The Strategies and The Aqueducts of Rome*, Loeb trans. Charles E. Bennett (*The Aqueducts* is a revision of the trans. by Clemens Herschel), 1969.
Martial, *Epigrams* (including *De Spectaculis Liber*), Loeb trans. D. R. Shackleton Bailey, 1993
Orosius: *Seven Books of History Against the Pagans: The Apology of Paulus Orosius*, Trans. Irving Woodworth Raymond (New York 1936)
Pliny I, *Natural History in Ten Volumes* IX, XXXIII–XXXV, Loeb trans. H. Rackham, 1984
Pliny I, *Natural History in Ten Volumes* X, XXXVI–XXXVII, Loeb trans. D. E. Eichholz, 1972
Plutarch's Lives in Eleven Volumes, XI, *Aratus, Artaxerxes, Galba and Otho*, Loeb trans. Bernadotte Perrin, 1926
Seneca, *Seneca in ten volumes*, Vol. V, *Ad Lucilium Epistulae Morales*, Loeb trans. Richard M. Gummere, in three volumes, vol. II, 1970
Seneca in Nine Volumes, IX, *The Tragedies II*, Loeb trans. Frank Justus Miller, 1968
Suetonius, *Lives of the Caesars*, vol. II., Loeb trans. J. C. Rolfe, 1979
Tacitus, *The Annals*, Loeb trans. John Jackson, 1981

MODERN SOURCES

- Aiardi, Alessandro, "Per un' interpretazione della Domus Aurea", *La Parola del Passato*, 179, 1978 (Vol. 33, No. 2), 90–103
- Anderson, James C. Jr., "The Date of the Thermae Traiani and the Topography of the Oppius Mons", *AJA* 89/3, 1985, 499–509
- Ball, Larry F., *The Masonry Chronology of Nero's Domus Aurea*, dissertation for the University of Virginia, 1987 (Ann Arbor 1991)
- Ball, Larry F., "A Reappraisal of Nero's Domus Aurea", in John Humphrey, ed., *Rome Papers*, *JRA*, Suppl. Ser. 11, 1994
- Balland, M. André, "Nova Urbs et "Neapolis": Remarques sur les projets urbanistique de Néron", *MEFRA* LXXVII, 1965, 349–393
- Bastomsky, S. J., "A Note on Some Hot Baths and Accelerated Deaths in Nero's Principate", *Latomus* 52, 1993, 612–6
- Bergmann, Marianne, *Der Kolos Neros: Die Domus Aurea und der Mentalitätswandel im Rom der frühen Kaiserzeit* (Mainz 1994)
- Bianchi-Bandinelli, Ranuccio, *Roma. L'arte romana nel centro del potere* (Rome 1969) (trans. of *Rome, le centre du pouvoir* (Paris 1969))
- Blake, Marion, *Roman Construction in Italy from Tiberius through the Flavians* (Washington, DC 1959)
- Boëthius, Axel, "The Neronian Nova Urbis", *Corolla Archaeologica, Skrifter Utgivna av Svenska institutet i Rom*, II 1932, 84–97
- Boëthius, Axel, "Nero's Golden House", *Eranos* 44, 1946, 442–459
- Boëthius, Axel, *The Golden House of Nero* (Ann Arbor 1960)
- Bourne, Frank, *The Public Works of the Julio-Claudians and Flavians* (Princeton 1946)
- Bradley, K. R., *Suetonius' Life of Nero: An Historical Commentary* (Brussels 1978)
- Campanile, Domatilla, "Praecipua Cenationum Rotunda" *Athenaeum* XXVIII, 1990, 186–191
- Carusa, Giovanni, and Volpe, Rita, "Preesistenza e persistenze delle Terme di Traiano", in Elizabeth Fentress ed., *Romanization and the City*, *JRA* Suppl. Ser. 38, 2000, 42–56
- Cassatella, A., "Domus Aurea", in Margareta Steinby, ed., *LTUR* 1995, 49–50 and 63–4 (all references to Cassatella's entries in *LTUR*. are "Cassatella 1995")
- Cassatella, A., and Panella, S., "Domus Aurea: Vestibulum", in Margareta Steinby, ed., *LTUR*, 1995, 50–51
- Charbonneaux, J., Martin, R., and Villard, F., *La Grecia Ellenistica*, (Milan 1978, trans. of *Grèce Hellenistique*, Paris 1970)
- Clarke, John R., *The Houses of Roman Italy, 100 B.C.–A.D. 250: Ritual, Space, and Decoration* (Berkeley CA 1999)
- Coarelli, Filippo, *Guida archeologica di Roma* (Rome 1974)
- Crema, Luigi, *L'architettura romana* (Turin 1959)
- Dacos, Nicole, *La découverte de la Domus Aurea et la formation des grotesques à la Renaissance* (London 1969)
- Davies, Penelope "What Worse Than Nero, What Better Than His Baths?": *Damnatio Memoriae* and Roman Architecture", in Eric Varner, ed., *From Caligula to Constantine: Tyranny and Transformation in Roman Portraiture*, (Atlanta 2000)
- Delaine, Janet, *The Baths of Caracalla: A Study in the Design, Construction, and Economics of Large-Scale Building Projects in Imperial Rome*, *JRA* Suppl. Ser. 25 1997
- De Romanis, A., *Le antiche camere Esquiline dette comunemente delle terme di Tito* (Rome 1822)
- De Vos, M., "Domus Transitoria", in Margareta Steinby, ed., *LTUR* (Rome 1995) 199–202

- Dobbins, John J., "Problems of Chronology, Decoration, and Urban Design in the Forum of Pompeii", *AJA* 98/4, October 1994, 629–694
- Dwyer, Eugene, "The Pompeian Atrium House in Theory and Practice", in Elaine Gazda, ed., *Roman Art in the Private Sphere* (Ann Arbor 1991)
- Fabbrini, Laura, "Domus Aurea. Il piano superiore del quartiere orientale", *Atti della Pontificia Accademia dell' archeologia, Memorie* 14, 1982, 5–24
- Fabbrini, Laura, "Domus Aurea: una nuova lettura planimetria del palazzo sul colle Oppio", *Analecta Romana* (Danish Institute in Rome) Suppl. X, 1983, 169–189
- Fabbrini, Laura, "I Corpi Edilizi che Condizionarono L'Attuazione del Progetto del Palazzo Esquilino di Nerone", *Rendiconti della Pontificia Accademia dell' archeologia*, 58, 1986, 129–179
- Fabbrini, Laura, "Domus Aurea: Il Palazzo sull'Esquilino", in Margareta Steinby, ed., *LTUR*, 1995, 56–63
- Garzetti, Albino, *From Tiberius to the Antonines*, trans. J. R. Foster (London: 1974)
- Ghini, Giuseppina, "Terme Neroniano-Alessandrine", *Lavori e studi di Archeologia*, 6, Roma: *Archeologia nel Centro*, II, La "Città Murata", 1985, 395–399
- Giedon, Sigfried, *Architecture and the Phenomena of Transition* (Cambridge, MA 1971)
- Giovannoni, Gustavo, "La cupola della Domus Aurea Neroniana in Roma", *Atti del I° Congresso Nazionale di storia dell' architettura*, 1940, 95–102
- Grabar, Oleg, "From Dome of Heaven to Pleasure Dome", *JSAH* XLIX, March 1990, 15–21
- Griffin, Miriam T., *Nero: The End of a Dynasty* (New Haven, CT 1985)
- Haselberger, Lothar, Romano, David G. and Dumser, Elisha A., eds., *Mapping Augustan Rome*, in John Humphrey, ed., *JRA* Suppl. Ser. 50, 2002
- Helen, Tapio, "Organizaion of Roman Brick Production in the First and Second Centuries A.D.", *Acta Instituti Roman Finlandiae* Vol. IX No.1. (Helsinki 1975)
- Hemsoll, David, "The Architecture of Nero's Golden House", in Martin Henig, ed., *Architecture and Architectural Sculpture in the Roman Empire* (Oxford 1990), 10–36
- Hermansen, Gustav, *Ostia: Aspects of Roman City Life* (Edmonton 1981)
- Huelsen, Charles K. F., *Die Thermen des Agrippa* (Rome 1910)
- Jashemski, Wilhelmina, *The Gardens of Pompeii, Herculaneum, and the Villas Destroyed by Vesuvius* (New Rochelle, NY 1979)
- Kähler, Heinz, *Hadrian und seine Villa bei Tivoli* (Berlin 1950)
- Kähler, Heinz, *The Art of Rome and her Empire* (New York 1963)
- La Follette, Laetitia, *The Baths of Trajan Decius on the Aventine*, *JRA*, Suppl. 11, 1994, 6–88
- Lancaster, Lynne, "Building Trajan's Markets", *AJA* 102/2, April 1998, 283–308
- Lancaster, Lynne, "Building Trajan's Markets 2: The Construction Process", *AJA* 104/4, October 2000, 755–85
- Lancaster, Lynne, "Concrete Vaulted Construction: Development in Rome from Nero to Trajan" (Unpublished D.Phil. dissertation, Oxford University 1995) (I have only seen an electronic version of this, not retaining the pagination of the hard copy at Oxford, so annotations refer to chapter and section numbers, rather than specific pages)
- Lanciani, Rodolfo, *Forma Urbis Romae*, (Rome 1990, reissue of Milan 1893–1901)
- Lanciani, Rodolfo, *The Ruins and Excavations of Ancient Rome* (New York 1979, reissue of Rome 1897)
- La Rocca, Eugenio, "L'affresco con veduta di città dal colle Oppio", in Elizabeth Fentress ed., *Romanization and the City*, *JRA* Suppl. Ser. 38, 2000, 57–71
- Lauter, Hans, "Kunst und Landschaft—ein Beitrag zum rhodischen Hellenismus", *Antike Kunst* 15, 1972, 49–59

- Lavagne, Henri, "Le Nymphée au Polyphème de la 'Domus Aurea'", *MEFRA*, 82 1970, 673–722
- Lavagne, Henri, *Operosa Antra* (Rome 1988)
- Lugli, Giuseppe, "Nuove forme dell' architettura Romana nell' età dei Flavi", *Atti del III° Convegno Nazionale di storia dell' architettura*, 1940, 95–102
- Lugli, Giuseppe, *Roma Antica: il centro monumentale* (Rome 1946)
- Lugli, Giuseppe, *La tecnica edilizia Romana*, 2 vols. (Rome 1957)
- Lyttleton, Margaret, *Baroque Architecture in Classical Antiquity* (London 1974)
- MacDonald, William L., *The Architecture of the Roman Empire, I* (New Haven 1965 and 1982) (Annotations refer to the pagination in the 1982 paperback edition.)
- Meiggs, Russell, *Roman Ostia*, second ed., (Oxford 1973)
- Meyboom, Paul G. P., "Famulus and the Painters' Workshops of the Domus Aurea", *Mededelingen van het Nederlands Instituut to Rome: Antiquity* 54, 1995, 229–244
- Meyboom, Paul G. P., and Moorman, Eric M., "Domus Aurea: Appunti sul padiglione della domus Aurea neroniana sul Colle Oppio", *Bollettino di Archeologia del Ministero per I Beni Culturali e Ambientali*, July–December 1992, 1995, 139–47
- Meyboom, Paul G. P., and Moorman, Eric M., "Il padiglione della Domus Aurea Neroniana sul colle oppio: Questioni sulla datazione", *Actas de XIV Congrès Internacional d'Arqueologia Classica, Tarragona* 1993, 1994, 293–5
- Meyboom, Paul G. P., and Peters, W. J. Th., "The Roots of Provincial Roman Painting. Results of Current Research in Nero's Domus Aurea", *BAR International Series* 140, 1982, 33–74
- Meyboom, Paul G. P., and Peters, W. J. Th., "Decorazione ed ambiente nella Domus aurea di Nerone", in Eric Moorman ed., *Functional and Spatial Analysis of Wall Painting*, *BABesch Sup.* 3, 1993, 59–63
- Meyer, Katharina Eleonore, "Axial peristyle houses in the western empire", *JRA* 12, 1999, 101–121
- Mingazzini, P., "Tentativo ricostruzione grafica della 'coenotio rotunda' della Domus Aurea", *Quaderni dell' istituto de storia dell' architettura*, 31–48, 1961, 21–26
- Mirri, L., and Carletti, G., *Le antiche camere delle terme di Tito e le loro pitture* (Rome, 1776)
- Montani, C., "La Domus Aurea di Nerone", *Capitolium* 9, 1933
- Moorman, Eric M., "A ruin for Nero on the Oppian hill?", *JRA* 8, 1995, 403–5
- Morford, Mark P. O., "The Distortion of the 'Domus Aurea' Tradition", *Eranos* 66, 1968, 159–179
- Morricone, M. L., "Edificio sotto il tempio di Venere e Roma", *Studi per Laura Breglia, Bollettino di Numismatica*, Suppl. 4, 1987, 69–82
- Nash, E., *Pictorial Dictionary of Ancient Rome* (New York 1961)
- Newbold, R. F., "Some Social and Economic Consequences of the A.D. 64 Fire at Rome", *Latomus* 33, 1974, 858–869
- Panella, Clementina, "Domus Aurea: Area dello Stagnum", in Margareta Steinby, ed., *LTUR*, 1995, 51–55
- Panella, Clementina, et al., *Meta Sudans, I: Un'area sacra in Palatio el la valle del Colosseo prima e dopo Nerone*, (Rome 1996)
- Papi, E., "Domus Aurea: Porticus Tripllices Miliariae", in Margareta Steinby, ed., *LTUR*, 1995, 55–6
- Perrin, Yves, "Nicolas Ponce et la domus aurea de Néron: Une documentation inédite", *MEFRA* 94, 1982, 843–91
- Perrin, Yves, "La Domus Aurea el l'idéologie Néronienne", in *Le Système Palatial en Orient, en Grèce et à Rome, Actas du Colloque do Strasbourg*, 19–22 June 1985, 1987, 359–391
- Perrin, Yves, "Les residences de Néron", *L'Information Historique*, 57, 1995, 5–15

- Perrin, Yves, "Turris Maecenatiana: une note d'histoire et de topographie", *Latomus* 55/2, 1996, 399–410
- Peters, W.J. Th.: "Die Landschaftsbilder in dem Wand- und Deckenmalereien der Domus Aurea", *BABesch* 57, 1982, 52–69
- Pinot de Villechénon-Lepointe, Marie-Noëlle, "Un Album de Dessins d'Antiques au Louvre: Marco Carloni et les Peintures de la Domus Aurea", *Revue de l'Art* 14, 1971, 86ff
- Pinot de Villechénon-Lepointe, Marie-Noëlle, *Domus Aurea. La decorazione pittorica del palazzo neroniano nell'album delle "Terme di Tito", conservato al Louvre* (Milan 1998)
- Platner, S. B., and Ashby, Thomas, *A Topographical Dictionary of Ancient Rome* (Rome 1965)
- Ponce, Nicolas, *Description des bains de Titus, collections des peintures et arabesques trouvée dans les ruines de cet empereur* (Paris 1786)
- Richardson, Lawrence Jr., *A New Topographical Dictionary of Ancient Rome* (Baltimore 1992)
- Rickman, Geoffrey, *Roman Granaries and Store Buildings* (Cambridge, UK 1971)
- Rocco, Giorgio, "Alcune osservazioni sul valore architettonico della antica decorazione parietale: la Domus Aurea di Nerone", *Palladio, Nuova Serie* 1, 1988, 121–134
- Royo, Manuel, "le Palais dans la Ville: formes et structures topographiques du pouvoir imperial d'Auguste à Néron", *MEFRA* 106, 1994, 219–245
- Sanguinetti, Francesco, "Lavori recenti nella Domus Aurea", *Palladio* 7, 1957, 126–7
- Sanguinetti, Francesco, "Il mosaico del ninfeo ed altre recenti scoperti nella Domus Aurea", *Bollettino del Centro di Studi per la Storia dell'Architettura* 12, 1958, 35–46
- Sear, Frank, *Roman Wall and Vault Mosaics* (Heidelberg: 1977) (*MDAI, Römische abteilung*, 23rd Suppl.)
- Sear, Frank, *Roman Architecture* (Ithaca 1982)
- Storz, S., "Beobachtungen im Oktagon der Domus Aurea", *MDAI, Römische Abteilung*, 1974, 323–339
- Swoboda, Karl, *Römische und Romanische Paläste* (Vienna 1969)
- Tamm, Birgitta, *Auditorium and Palatium* (Stockholm 1963)
- Tosi, G., "Il palazzo . . . dall' arcaismo greco alla Domus Flavia", *Arte Antica e Moderna* 7, 1959
- Tybout, Rolf A., "Roman wall-painting and social significance", in John Humphrey ed., *JRA* 14, 2001, 33–56
- Van Deman, Esther B., "The Sacra Via of Nero", *MAAR*, 5, 1925, 115–125
- Van Essen, C. C., "La Topographie de la Domus Aurea Neronis", *Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Nieuwe Reeks, Deel* 17, *Afdeling letterkunde* 1–12, 1954, 371–398
- Warden, P. Gregory, "The Domus Aurea Reconsidered", *JSAH* 40/4, 1981, 271–278
- Ward-Perkins, John B., "Nero's Golden House", *Antiquity* 30, 1956, 209–219
- Ward-Perkins, John B., "Roman Concrete and Roman Palaces", *The Listener* 56, Nov. 1 1956, 701–3
- Ward-Perkins, John B., "The Cryptoportico: a Practical Solution to Certain Problems of Roman Urban Design", *Collections EFR*, Sup. 14 (12–23 April 1972), 1973, 51–6
- Ward-Perkins, John B., *Roman Imperial Architecture* (Harmondsworth et al. 1981)
- Wataghin-Cantino, Gisella, "Observations of the Domus Aurea", *Mesopotamia* 1, 1966, 109–118
- Weege, F., "Das Goldene Haus des Nero. Neue Funde und Forschungen", *JDAI*, 28, 1913, 127–244
- Yegül, Fikret, *Baths and Bathing in Classical Antiquity*, (Cambridge, MA 1992)
- Zander, Giuseppe, "La Domus Aurea: nuovi problemi architettonici", *Bollettino del Centro di Studi per la Storia dell' Architettura* 12, 1958, 47–64
- Zander, Giuseppe, "Nuovi Studi e Ricerche su la Domus Aurea", *Palladio* XV, 1965, 157–9

INDEX



The organization of this monograph does not lend itself well to a conventional index because important techniques, issues and concepts tend to be sprinkled liberally throughout the text. Index entries for such items quickly become unwieldy, with dozens or hundreds of page references. I have left most of those out, since a topic spread throughout the book in that manner is really part of the overall topic of the book, rather than a facet of it. This does not mean that the book is lacking in proper research tools, but the reader should note that the index is somewhat different from the norm. In some cases, an issue has been important enough that I know some scholars will want to see every instance of it in the book, the myriad page references notwithstanding, and in those instances I have simply included the cumbersome index entry. More important, the book is organized topographically, chronologically and thematically, with all of the key issues, areas and phases specifically cited in the table of contents. These include masonry types, decoration types, the different parts of the Esquiline Wing, chronological phases of construction, major design concepts and the topics of the final interpretive essays. So, although this results in a long and detailed table of contents, I suspect also that most scholars will find the table of contents to be the handier and more efficient reference tool, merely supplemented by this index.

- | | |
|---|---|
| Alexander Severus, 238, 241–3, 255, 275 | Caligula (emperor), 2, 135 |
| Apollodorus of Damascus, 260, 262, 267, 274 | Claudius (emperor), 4, 263, 270 |
| Augustus (emperor), 232, 236, 238–9, 264–5, 268 | clerestory |
| | true, 154–5, 161, 220, 244, 251, 256–7, 271, 273 |
| Baia (republican bath), 226, 230–3, 235–7, 244, 248 | vault haunch, 140, 145, 150, 161–5, 182, 212–5, 218–23, 225–8, 237, 258, 270, 272 |
| bipedales, 103, 105, 157, 166, 179 | |

- Domitian (emperor), 138, 248, 267, 274–6
- Fabullus/Famullus (painter), 261
- Ferentino, market, 229, 271, 273
- frescoes
 third style, 19–21, 142, 171
 fourth style, 19–24, 94, 107, 171–2, 261
- groin vault
 Octagon Suite, 219, 221, 227–9, 239–40, 256–8
 Imperial baths, 243–5, 247, 249, 251–2, 256–8, 267–8, 271
 markets of Trajan, 270–3
- grotto motif, 18, 23, 136, 138, 150, 152, 160, 165–6, 168–70, 177–8, 180–2, 196–7, 221, 224, 256
- Hadrian (emperor), 156, 242, 262, 266–7, 274–6
- hypaethraeum, 39, 64–5, 71, 79, 270–1
- impost, 79, 152, 154, 157, 165, 271
- leveling course, 166
- Oplontis, Imperial Villa (“of Poppaea”), 110, 138, 153–4
- Ostia, Campo della Magna Mater, 30
- Otho (emperor), 18, 20, 92, 119, 146, 150, 153, 166, 168–9, 197–8
- Palestrina, Sanctuary of Fortuna, 226, 236, 264, 270
- Palladio, Andrea, 233–5, 240–1, 249–50, 252–3
- Peruzzi, Baldassare, 233–5
- Piranesi, Giovanni Battista, 233–5
- Pompeii, 30, 64, 107, 153, 236, 267
 central baths, 232, 246
 house of Fabius Rufus, 138, 179
 house of the faun, 138, 179
 house of the Vettii, 153
 Imperial cult building, 266–7
 macellum, 65
 staban baths, 247
 villa of the mysteries, 136–7, 153
- Rabirius (architect), 140, 251–2, 259, 261–2, 265–6
- Rome
 Aula Traiana, 269–74
 baths of Agrippa, 226, 230, 232–9, 241, 244, 248, 253, 256, 265, 268, 274
 baths of Alexander Severus, 238, 241–3, 255, 275
 baths of Caracalla, 242–3, 245–6, 249, 254–5, 268, 275
 baths of Diocletian, 242–6, 249, 254, 268
 baths of Nero, 229, 238–56, 258, 261–4, 267–8, 275
 baths of Titus, 244, 249–254, 259, 261, 268
 baths of Trajan, 14, 235, 242–6, 248–9, 254–5, 267–8, 274
 substructures in the Esquiline Wing; 7, 9–10, 13, 18, 36, 107, 134, 136, 140, 153, 166–8, 195, 203–4, 206, 208
 baths of Trajan Decius, 235
 Caelian hill, 2, 4
 Circus Maximus, 2, 4, 6
 Colosseum, 4, 9, 94, 250
 Domus Augustiana, 140, 252
 Domus Aurea
 lake (stagnum), 4, 9
 park, 4, 6, 8, 10, 17, 88, 97–8, 109, 111, 123, 135–6, 139, 250
 piano nobile, 4, 10, 11, 50, 139, 155, 160–3, 170, 172, 204–5, 213, 220, 256, 266, 271
 Domus Flavia, 6, 138, 168, 179, 256, 266
 Domus Tiberiana, 2, 5–6, 135
 Domus Transitoria, 2–6, 8, 16–7, 27, 64, 66, 87, 95, 97, 122, 156–7, 161–2, 164, 171, 220, 246
 Esquiline hill, 2–4, 8, 47, 64, 95, 250
 Flavian amphitheatre, *see* Colosseum
 forum, 2, 4, 6
 forum of Julius Caesar, 47
 forum of Trajan, 269–70, 273–4
 gardens of Maecenas, 2, 4
 gymnasium of Nero, 239
 macellum of Nero, 65
 markets of Trajan, 65, 260, 269–75
 odeion of Trajan, 260
 Oppian ridge, 4, 8, 14, 32, 37–8, 74–5, 258
 Palatine hill, 2–6, 135–6, 168

- Porticus Æmilia, 224, 245
 Tabularium, 229
 temple of Venus and Roma, 156, 246
 theatre of Pompey, 268–9
 Velia, 2, 4

 semi-bond, 113, 133
 prepared, 113–6, 120, 125, 127, 132, 198, 208
 rough, 113–4, 121, 127, 144

 Tiberius (emperor), 2, 6
 Tiridates, 135

 Titus (emperor), 250–1, 253, 268
 Tivoli, 262, 266, 274
 Canopus, 276
 Piazza d'Oro, 262, 276
 Trajan (emperor), 18, 36, 243, 248, 262, 267–9, 272–6

 Vergina, Macedonian palace at, 5, 135
 Vespasian (emperor), 180, 250, 275

 water works, 11, 76, 107, 122, 133–4, 137–8, 140, 168, 170, 181, 184, 199, 222, 227, 266