

THE CHANGING
LANDSCAPES OF ROME'S
NORTHERN HINTERLAND

THE BRITISH SCHOOL AT
ROME'S TIBER VALLEY PROJECT

Helen Patterson, Robert Witcher
and Helga Di Giuseppe

With contributions by
Martin Millett, Simon Keay and Christopher Smith

And a preface by
Andrew Wallace-Hadrill



ARCHAEOPRESS PUBLISHING LTD

Summertown Pavilion

18-24 Middle Way

Summertown

Oxford OX2 7LG

www.archaeopress.com

ISBN 978-1-78969-615-8

ISBN 978-1-78969-616-5 (e-Pdf)

© the individual authors and Archaeopress 2020

Cover: A view of Monte Soratte from the west. Photo by Robert Witcher.

The Tiber Valley Project was generously funded by a grant from the Leverhulme Trust



This work is licensed under a Creative Commons Attribution 4.0 International License.

This book is available direct from Archaeopress or from our website www.archaeopress.com



The South Etruria surveyors north-west of Veii.
©BSR Photographic Archive, Ward-Perkins Collection, wpset-1916_31

Contents

List of Figures	v
List of Tables	x
List of Contributors	xi
Preface	xiii
Andrew Wallace-Hadrill	
Chapter 1 The Tiber Valley Project: an introduction	1
Simon Keay, Martin Millett and Christopher Smith	
1.1 The South Etruria Survey	3
1.2 An overview of the Tiber Valley Project	5
Chapter 2 The middle Tiber valley: history of studies and project methodologies	9
Robert Witcher	
2.1 Landscape archaeology in the middle Tiber valley	9
2.1.1 A century-and-a-half of landscape studies	10
2.1.2 From antiquarians to topographers	10
2.1.3 The South Etruria Survey	12
2.1.4 From the South Etruria Survey to the Tiber Valley Project	21
2.1.5 Summary	25
2.2 The South Etruria Survey revisited	26
2.2.1 South Etruria Survey restudy: pottery	27
2.2.2 South Etruria Survey restudy: sites	37
2.2.3 The South Etruria Survey: surveys	41
2.3 South Etruria Survey: rewalking the Eastern Ager Veientanus	49
2.4 Tiber Valley Project database	52
2.4.1 The spatial dimension: reading the maps	53
2.4.2 The temporal dimension: dividing up time	60
2.5 History of studies and project methodologies: summary	66
2.6 Overview of settlement trends in the middle Tiber valley	69
Chapter 3 The protohistoric to late Republican landscapes of the middle Tiber valley	74
Helga Di Giuseppe	
3.1 From the Bronze Age to the Iron Age	74
3.1.1 Overview of the thirteenth to eighth centuries BC	74
3.1.2 The Bronze Age	75
3.1.3. Social characterization	79
3.1.4 The Iron Age and the birth of proto-urban centres	79
3.2 The Orientalizing and Archaic: late eighth to early fifth centuries BC	83
3.2.1 Settlement centres and structured territories in the seventh and sixth centuries BC	84
3.2.2 The decline of the landscape in the fifth century BC	93
3.3 The mid- and late Republican landscape (c. 350–50/1 BC)	96
3.3.1 Historical outline of the Republican period	97
3.3.2 Continuity and transformation: the urban landscape of the Republican period	98
3.3.3 The rural landscape of the Republican period	103
3.4 Conclusions	112
4.1 Introduction	117
Chapter 4 The early and mid-imperial landscapes of the middle Tiber valley (c. 50 BC–AD 250)	117
Robert Witcher	
4.2 Contexts	119
4.2.1 The historical context	119

4.2.2	Earlier studies of the imperial landscape	121
4.2.3	The environment in the imperial period.....	123
4.3	Imperial-period material culture and settlement sites	126
4.3.1	Pottery.....	126
4.3.2	Sites.....	128
4.3.3	Legacy data	130
4.3.4	The Republican to imperial transition.....	132
4.3.5	The spatial dimension.....	134
4.4	The urban landscape	138
4.4.1	Urban types	142
4.4.2	Larger towns.....	142
4.4.3	Smaller towns and centres.....	146
4.4.4	Port sites	148
4.4.5	Road stations and villages.....	149
4.4.6	Urban summary	150
4.5	The rural landscape	150
4.5.1	Villas	154
4.5.2	Farms	163
4.5.3	Rural infrastructure	164
4.5.4	Micro-regional patterning in the imperial-period landscape.....	166
4.5.5	Intra-regional comparisons	170
4.6	People in the landscape	172
4.6.1	Population	172
4.6.2	Status and identity	176
4.7	A landscape of resources	179
4.7.1	Agricultural production	179
4.7.2	Ceramic and brick/tile production.....	182
4.7.3	Extraction	188
4.7.4	Other production.....	191
4.7.5	Summary.....	192
4.8	The competitive landscape	192
4.8.1	Material culture	193
4.8.2	Funerary landscapes	198
4.8.3	Summary.....	200
4.9	The mid imperial-period landscape.....	201
4.10	The imperial-period landscape: conclusions	206

Chapter 5 The late antique landscapes of the middle Tiber valley: the mid-third to mid-sixth centuries AD... 208

Helen Patterson

5.1	General introduction to the late antique and early medieval periods.....	208
5.2	The problems of the archaeological dataset	209
5.2.1	Identifying late antique and early medieval settlement	209
5.2.2	Defining late antique and medieval settlements.....	210
5.2.3	Other problems: the Tiber Valley Project data	211
5.2.4	The Tiber valley and the supply of Rome	212
5.3	Crisis, what crisis? The third to mid-sixth centuries AD.....	213
5.3.1	The historical context: the transformation of the classical world	213
5.3.2	Rural transformations	218
5.3.3	New late antique settlements.....	222
5.3.4	The villas.....	223
5.3.4.1	Villas with solely agricultural roles	224
5.3.4.2	Villas with roles in agriculture, manufacturing and artisan activities	224
5.3.4.3	Villas providing services	225
5.3.4.4	Villas and churches.....	225
5.3.4.5	Villas as residences for the aristocracy	227
5.3.4.6	Summary.....	229

5.3.5 Road stations	229
5.3.5.1 The Via Clodia	229
5.3.5.2 The Via Cassia	230
5.3.5.3 The Via Flaminia	230
5.3.5.4 Summary	232
5.3.6 Vici and pagi	232
5.3.7 Urban transformations	232
5.3.7.1 Failed towns	233
5.3.7.2 Towns and bishoprics	234
5.3.7.3 Towns as river ports	237
5.3.7.4 Towns and churches	237
5.3.7.5 Successful towns	237
5.3.7.6 Summary	237
5.3.8 The Christianization of the landscape	238
5.3.9 People in the late antique landscape	240
5.3.10 Rome and the Tiber valley: economic assessment	243
5.3.10.1 The river	243
5.3.10.2 Roads	243
5.3.10.3 Building materials	244
5.3.10.4 Timber	245
5.3.10.5 Foodstuffs	245
5.3.10.6 Ceramics	248
5.3.10.7 Agrarian practices, animal husbandry and diet	249
5.3.10.8 Coins	250
5.4 Conclusions	250
Chapter 6 The end of the Roman unity: the Tiber valley in the late sixth to seventh centuries AD	252
Helen Patterson	
6.1 The historical context: the Gothic Wars and Lombard invasions	252
6.2 The <i>incastellamento</i> debate	257
6.2.1 South Etruria: <i>ceramica a vetrina pesante</i> and Ponte Nepesino	258
6.2.2 The Sabina and the case of Casale San Donato	259
6.3 Rural transformations	262
6.3.1 South Etruria	262
6.3.2 The southern Sabina Tiberina: Eretum and Sant'Antimo	263
6.3.3 The central Sabina Tiberina: the Farfa Survey	263
6.4 The new foci of settlement	264
6.5 People in the landscape	266
6.6 Rome, the Tiber valley and the Lombards	267
6.6.1 Transport	267
6.6.2 Economic activity and pottery evidence	268
6.6.3 Coins	271
6.7 Conclusions	271
Chapter 7 The middle Tiber valley in the eighth and ninth centuries AD	274
Helen Patterson	
7.1 The Church and the Carolingians: historical and archaeological context	274
7.2 Rural transformations	281
7.2.1 South Etruria	281
7.2.1.1 The <i>domuscultae</i>	281
7.2.1.2 Settlement trends	284
7.2.1.3 Continuing sites	284
7.2.1.4 'New' foundations	284
7.2.1.5 Two case-studies	285
7.2.1.6 The Ager Veientanus and the area of Santa Cornelia	285
7.2.1.7 The Treia valley	287

7.2.2 The southern Sabina Tiberina: Eretum Survey.....	289
7.2.3 The central Sabina Tiberina: the Farfa Survey	290
7.3 Settlement and Roman roads.....	291
7.4 Urban transformations	292
7.4.1 The creation of a territorium	293
7.5 People in the landscape	294
7.6 Rome, the Church and the Tiber valley.....	295
7.6.1 The ceramics	297
7.7 Conclusions	301
Chapter 8 The Tiber Valley Project: retrospect and prospect.....	302
Martin Millett	
8.1 Introduction	302
8.2 The scope of the Tiber Valley Project.....	302
8.3 The historical contribution.....	303
8.4 Issues for debate	305
8.5 The future of field survey: the Tiber Valley Project and beyond.....	306
Appendix 1 List of Tiber Valley Project participants	308
Appendix 2 List of Tiber Valley Project publications	309
A. Forum Novum—Vescovio.	312
B. Galantina Survey.	312
C. Roman Towns Project	312
References	314
Index	352

List of Figures

Chapter 1 The Tiber Valley Project: an introduction

Figure 1.1. Location of the Tiber Valley Project study area and the South Etruria Survey. 2

Chapter 2 The middle Tiber valley: history of studies and project methodologies

- Figure 2.1a-c. Population change, as percentage growth or decline, from 1881 to 2011 in the *province* of Rome, Viterbo and Rieti, and in select *comuni* within the study area (based on ISTAT figures)..... 13
- Figure 2.2. Agricultural work near the Caere Gate at Veii during the course of the original survey work. ©BSR Photographic Archive, Ward-Perkins Collection, wpset-03109. 14
- Figure 2.3. Location of the South Etruria Survey areas..... 16
- Figure 2.4. Etruscan roads (red lines) leading out of the North-west gate of Veii (yellow) visible on a 1944 RAF aerial photograph, with South Etruria Survey findspots (red circles). 17
- Figure 2.5. Cuniculi (blue) and the line of an Etruscan road (red), leading past the tumulus of Monte Tondo to the north of Veii, visible on RAF 1944 photograph. Also shown are the Via Cassia (green) and South Etruria Survey finds spots (red circles)..... 18
- Figure 2.6. Fieldwalking at Veii during the South Etruria Survey. ©BSR Photographic Archive, Ward-Perkins Collection, wpset-1920.42. 19
- Figure 2.7. Other surveys included in the Tiber Valley Project database: Farfa; Forma Italiae; Corese; Regione Lazio. 22
- Figure 2.8. Distribution of sites identified by the Nepi survey of the Gruppo Archeologico Romano (after Camilli *et al.* 1995) in relation to sites mapped by the South Etruria Survey. 24
- Figure 2.9. Timespans of all pottery form types in the Tiber valley Project database (n=2715); red line shows mid-point of date spans..... 28
- Figure 2.10. Timespans of principal diagnostic classes of pottery (n>50 sherds) in the Tiber Valley Project database..... 29
- Figure 2.11. Total numbers of artefacts collected and retained by the South Etruria Survey from each site in the eastern Ager Veientanus, and restudied as part of the Tiber Valley Project. 32
- Figure 2.12. Comparison of pottery vessel parts collected by the South Etruria Survey for select ceramic classes: a) Roman amphorae; b) *terra sigillata italica*; c) Roman coarse-ware; d) African cooking-ware..... 34
- Figure 2.13a-b. Weighted average number of sherds per decade from site TVP-ID00827, grouped by material with date ranges of more (n=58) or less (n=51) than 1000 years; below, the date range and total number (in red) of sherds of each form type collected from the site. 35
- Figure 2.14 continued. Examples of original South Etruria Survey record cards; ©BSR Photographic Archive, Ward-Perkins Collection, South Etruria Survey Series..... 39
- Figure 2.14. Examples of original South Etruria Survey record cards; ©BSR Photographic Archive, Ward-Perkins Collection, South Etruria Survey Series..... 38
- Figure 2.15. South Etruria Survey sites by number of recorded visits. 45
- Figure 2.16. South Etruria Survey records by month of fieldwork; note, month was not documented for every record (n=2177) 47
- Figure 2.17. South Etruria Survey records by year of fieldwork, 1955–1974; note, year was not documented for every record (n=2556) 47
- Figure 2.18. South Etruria Survey records by date (5-year timeblocks) of fieldwork; note, approximate date was not documented for every record (n=3539) 48
- Figure 2.19. Land use categories recorded for each site during the South Etruria Survey; note, information on land use was not documented for every site (n=1548) 48
- Figure 2.20. A reconstruction of South Etruria Survey fieldwork around Monte Quadro in the Eastern Ager Veientanus survey area; probable routes walked (yellow) and sites recorded (red circles; size relative to quantity of material collected). 50
- Figure 2.21. Distribution of all Tiber Valley Project database records. Numbered gaps: surveys published after project data gathering complete: 1) Ager Ciminus Forma Italiae and 2) Ager Foronovanus Forma Italiae; 3) and 4) heavily forested and mountainous areas; 5) Tiber valley floodplain; 6) published surveys restudied by other projects: Latium Vetus volumes. ... 54
- Figure 2.22. Ploughing of steep slopes near the defences in the north-west area of Veii ©BSR Photographic Archive, Ward-Perkins Collection, wpset-00557. 55
- Figure 2.23. Soil erosion in a ploughed field on the Pietra Pertusa ridge in October 1963 showing movement of soil and exposure of bedrock. ©BSR Photographic Archive, Ward-Perkins Collection, wpset-07187. 56
- Figure 2.24. Distribution of all Tiber Valley Project records in relation to topography (north-eastern Ager Veientanus/southern Ager Capenas on west bank of the Tiber). 50 m-contours; orange/brown areas = alluvial deposits. 57
- Figure 2.25. Distribution of all Tiber Valley Project records in the eastern Ager Capenas and Sabina Tiberina/Farfa river valley in relation to unirrigated arable fields (brown), olive groves (green), fruit trees (orange) and vineyards (purple). The Tiber floodplain is mainly irrigated arable land with limited archaeological visibility due to thick alluvium..... 58

Figure 2.26. Distribution of all Tiber Valley Project records in relation to land use (southern Ager Faliscus). Dark grey = urban areas and infrastructure; greens = wooded and vegetated areas.	59
Figure 2.27. Numbers of restudied sherds recorded in the Tiber Valley Project database that can be dated precisely to each chronological period.	61
Figure 2.28. Weighted average number of sherds per decade recorded in the Tiber Valley Project database.	62
Figure 2.29. Diagnosticity of pottery recorded in the Tiber Valley Project database: form types plotted by start date (x-axis) and end date (y-axis). Symbol size is relative to number of sherds for each form type. Where $y = x$, the start and end date of a form type are the same; the higher the value of x relative to y , the less diagnostic the form type. (NB due to large quantity, Roman coarse-wares dated 300 BC–AD 300 are excluded).	63
Figure 2.30. Tiber Valley Project: the main chronological periods (centre column), with generic (left) and sub-periods (right); row height relative to period length.....	64
Figure 2.31a-c. Numbers of villas, farms and scatters by period; a) all Tiber Valley Project database records; b) those with restudied pottery; c) those with >25 sherds of restudied pottery.	67
Figure 2.32a-c. Effects of different data quality thresholds (all database records; those with restudied pottery; those with >25 sherds of restudied pottery) on a) scatters; b) farms; c) villas.	68
Figure 2.33. Percentage change in the numbers of records between each successive period: all database records, those with restudied pottery, and those with >25 sherds of restudied pottery (Archaic figure is relative to the Orientalizing period; Classical figure is relative to the Archaic, etc.).....	69
Figure 2.34. Numbers of Tiber Valley Project database records by period, showing the numbers of settlement sites versus all other types of site (e.g. funerary, infrastructure, etc.).....	70
Figure 2.35. Numbers of settlement sites for each main period (grey) recorded in the Tiber Valley Project database, alongside the numbers of settlement sites recorded for generic periods (blue).....	70
Figure 2.36. Weighted average number of sherds per decade versus number of settlement sites recorded in the Tiber Valley Project database.	71
Figure 2.37. Percentage change in the numbers of settlement sites recorded in Tiber Valley Project database between consecutive chronological periods.....	71
Figure 2.38. Percentages of settlement sites recorded in Tiber Valley Project database as abandoned at the transition between consecutive chronological periods.....	72
Figure 2.39. Percentages of settlement sites recorded in Tiber Valley Project database as continuing in occupation from the previous chronological period.....	72
Figure 2.40. Percentages of settlement sites recorded in Tiber Valley Project database as newly founded in each of the main chronological periods.....	73

Chapter 3 The protohistoric to late Republican landscapes of the middle Tiber valley

Figure 3.1. Numbers of settlement sites recorded in Tiber Valley Project database for the Early Bronze Age to the Classical periods (2300–350 BC), showing numbers of sites dated to specific and generic periods.....	74
Figure 3.2. Tiber Valley Project settlement sites in the Bronze Age (2300–1000 BC).	76
Figure 3.3. Tiber Valley Project settlement sites in the Iron Age (1000–750 BC).	80
Figure 3.4. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Bronze Age to the Iron Age.	81
Figure 3.5. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Late Bronze Age to the Early Iron Age.	81
Figure 3.6. Percentages of continuing versus new sites from the Iron Age to the Archaic period (750–580 BC): South Etruria versus Sabina.	82
Figure 3.7. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Early Iron Age to the Late Iron Age.	82
Figure 3.8. Numbers of settlements versus non-settlement (e.g. funerary sites) in the Orientalizing (Early, Middle, Late), Archaic and Classical periods (750–580 BC).	84
Figure 3.9. Tiber Valley Project settlement sites in the Orientalizing period (750–580 BC).....	85
Figure 3.10. Numbers of sites, from the Orientalizing to the Republican period, identified by the Forma Italiae Cures survey (Muzzioli 1980) and during resurvey by the Corese Survey.	87
Figure 3.11. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Iron Age to the Orientalizing period.	88
Figure 3.12. Numbers of settlement sites recorded in Tiber Valley Project database for the Orientalizing to Archaic periods (750–580 BC): South Etruria versus Sabina (log scale).....	89
Figure 3.13. Tiber Valley Project settlement sites in the Archaic period (580–480 BC).	90
Figure 3.14. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Orientalizing to the Archaic period.....	91
Figure 3.15. Tiber Valley Project settlement sites in the Classical period (480–350 BC).....	92

Figure 3.16. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Archaic to the Classical period.	93
Figure 3.17. Weighted average numbers of sherds per decade collected by the South Etruria Survey: 750 to 350 BC.....	94
Figure 3.18. Tiber Valley Project settlement sites in the Republican period (350–50/1 BC).....	95
Figure 3.19. Numbers of settlement sites recorded in Tiber Valley Project database for the Classical to the early imperial period, showing numbers of sites dated to specific and generic periods.	96
Figure 3.20. Findspots with Archaic, Classical and/or mid-Republican-period material at Veii.	99
Figure 3.21. Percentages of material of Republican date at Veii and in the Ager Veientanus survey area.	100
Figure 3.22. Weighted average numbers of sherds per decade collected by the South Etruria Survey: 400 to 1 BC.....	101
Figure 3.23. Weighted average numbers of black-gloss sherds per decade collected by the South Etruria Survey and select centres in the middle Tiber Valley: Veii, Capena, Eretum and Falerii Novi.	102
Figure 3.24. Tiber Valley Project settlement sites in the mid-Republican period (350–250 BC).	105
Figure 3.25. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the Classical to the mid-Republican period.	106
Figure 3.26. Tiber Valley Project settlement sites in the late Republican 1 period (250–150 BC).	107
Figure 3.27. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the mid-Republican to the late Republican 1 period.....	108
Figure 3.28. Tiber Valley Project settlement sites in the late Republican 2 period (150–50/1 BC).	111
Figure 3.29. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the late Republican 1 to the late Republican 2 period.....	112

Chapter 4 The early and mid-imperial landscapes of the middle Tiber valley (c. 50 BC–AD 250)

Figure 4.1. Tiber Valley Project settlement sites during the imperial period (50 BC–AD 250).....	118
Figure 4.2. Recorded flood frequency at Rome from 300 BC–AD 300 (based on Aldrete 2007: table 1.1).	124
Figure 4.3. Weighted average numbers of sherds per decade (100 BC–AD 250) collected by the South Etruria Survey: all pottery, plus select classes.	127
Figure 4.4. Numbers of early and mid-imperial period settlement sites, in relation to sites of earlier and generic periods.	128
Figure 4.5a-c. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from a) the Republican (350–50/1 BC) to the early imperial period; b) the late Republican (250–50/1 BC) to the early imperial period; c) the late Republican 2 (150–50/1 BC) to the early imperial period.	129
Figure 4.6a-d. Numbers of sites from the late Republican to the mid-imperial period (250 BC–AD 250) based on database records with restudied material versus legacy data: a) all database records; b) scatters; c) farms; d) villas.....	131
Figure 4.7. Numbers of early and mid-imperial-period settlement sites, with Republican sites divided into mid- and late Republican periods.	132
Figure 4.8. Distribution of newly founded early imperial (50 BC–AD 100) settlement sites in relation to late Republican (250–50/1 BC) settlement sites in the western Ager Veientanus, southern Ager Faliscus and Ager Sutrinus.	135
Figure 4.9. Distribution of early imperial (50 BC–AD 100) settlement sites around Eretum and Nomentum: villas (red circles) and farms (blue circles); plus settlement sites of generic imperial (50 BC–AD 250) date (black circles with no red or blue fill).	136
Figure 4.10. Distribution of early imperial-period farms and villas around Sutrium and Vicus Matrini in relation to the South Etruria and Forma Italiae survey areas.....	137
Figure 4.11. Towns and road stations in the middle Tiber Valley during the early imperial period (50 BC–AD 100).	139
Figure 4.12. Weighted average numbers of sherds per decade collected by the South Etruria Survey, 350 BC to AD 350: quantities of material from Veii, the Ager Veientanus, and the remainder of the South Etruria Survey material (log scale).	140
Figure 4.13. Distance from early imperial-period towns in the middle Tiber valley (darker red indicates areas that are more distant from towns) and the location of road stations.	143
Figure 4.14. Plan of Falerii Novi based on magnetometry survey (with permission of M. Millett).	145
Figure 4.15. Ratios of early imperial-period farms and villas grouped by select surveys and groups of surveys.....	152
Figure 4.16. Tiber Valley Project settlement sites in the early imperial period (50 BC–AD 100).....	153
Figure 4.17. Early imperial-period sites in the eastern Ager Veientanus, Ager Capenas and southern Ager Faliscus (50 BC–AD 100).....	155
Figure 4.18. Early imperial-period sites in western Ager Veientanus, Ager Sutrinus and southern Ager Faliscus (50 BC–AD 100).....	156
Figure 4.19. Density of artefacts (equivalent per ha) collected by the Corese Survey in the vicinity of villa site 29.1/2.....	162
Figure 4.20. Early imperial-period sites at I Costaroni and Monte Perazzo, in the eastern Ager Veientanus (50 BC–AD 100).....	168
Figure 4.21. Early imperial-period sites in the area between Valle Lunga via Il Pascolaro to Valle Ciaca and Ponte Altieri, in the eastern Ager Veientanus (50 BC–AD 100).....	169

Figure 4.22. Early imperial-period sites around Monte Caminetto in the eastern Ager Veientanus, adjacent to the Via Flaminia, which was previously very thinly unoccupied (50 BC–AD 100).	170
Figure 4.23. Early imperial-period sites in the Grottarossa and Via Veientana survey areas, between Veii and the Tiber (50 BC–AD 100).	171
Figure 4.24. Early imperial-period population estimates for the middle Tiber Valley.	176
Figure 4.25. Distribution of cisterns at imperial-period sites in the middle Tiber Valley.	181
Figure 4.26. Distribution of early imperial-period kilns in the middle Tiber Valley (50 BC–AD 100).	185
Figure 4.27. Distribution of <i>terra sigillata italica</i> pottery from production centres at Prima Porta and Vasanello	186
Figure 4.28. Distribution of early and mid-imperial-period sites with travertine construction materials in relation to the main sources of travertine in the middle Tiber Valley (50 BC–AD 250).	189
Figure 4.29. Distribution of early and mid-imperial-period sites with <i>selce</i> or basalt materials in relation to main sources of leucitic lavas in the middle Tiber Valley (50 BC–AD 250).	191
Figure 4.30. Distribution of vessel glass and window glass collected by the South Etruria Survey from early and mid-imperial-period sites in the middle Tiber Valley (50 BC–AD 250).	194
Figure 4.31. Distribution of stone and <i>pasta vitrea</i> mosaic tesserae from early and mid-imperial-period sites in the middle Tiber Valley (50 BC–AD 250).	195
Figure 4.32. Distribution of marbles at early and mid-imperial-period sites in the middle Tiber Valley (50 BC–AD 250).	196
Figure 4.33. Weighted average numbers of amphora sherds per decade collected by the South Etruria Survey (350 BC–AD 700).	198
Figure 4.34. Early imperial-period funerary sites in the middle Tiber valley (50 BC–AD 100).	199
Figure 4.35. Tiber Valley Project settlement sites in the mid-imperial period (AD 100–250).	201
Figure 4.36. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from early imperial to the mid-imperial period.	202
Figure 4.37. Ratios of continuing and abandoned early imperial-period settlement sites at the transition to the mid-imperial period, grouped by select site types, surveys and groups of surveys.	203
Figure 4.38. Distributions of abandoned early imperial (50 BC–AD 100) and newly founded mid-imperial (AD 100–250) settlement sites.	204
Figure 4.39. Mid-imperial-period sites in the eastern Ager Veientanus, Ager Capenas and southern Ager Faliscus (AD 100–250).	205
 Chapter 5 The late antique landscapes of the middle Tiber valley: the mid-third to mid-sixth centuries AD	
Figure 5.1. Tiber Valley Project settlement sites in the late antique period (AD 250–550).	211
Figure 5.2. Comparison of Tiber Valley Project settlement numbers and weighted average numbers of sherds per decade from the late antique 1 to the middle medieval 1 period.	212
Figure 5.3. Tiber Valley Project settlement sites in the late antique 1 period (AD 250–450).	217
Figure 5.4. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the mid-imperial to the late antique 1 period.	218
Figure 5.5. Numbers of abandoned or continuing at the transition from the mid-imperial to late antique 1 period: farms versus villas.	218
Figure 5.6. Weighted average numbers of late antique (AD 200–600) pottery sherds per decade collected by the South Etruria Survey.	219
Figure 5.7. Tiber Valley Project settlement sites in the late antique 2 period (AD 450–550).	220
Figure 5.8. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the late antique 1 to late antique 2 period.	221
Figure 5.9. Distributions of newly founded late antique 1 (AD 250–450) and late antique 2 (AD 450–550) settlement sites.	222
Figure 5.10. Distribution of late antique (AD 250–550) sites around the former town of Veii.	228
Figure 5.11. Weighted average numbers of sherds per decade from the South Etruria Survey, AD 200 to 800: quantities of material from Veii, the Ager Veientanus, and the remainder of the South Etruria Survey material.	234
Figure 5.12. Numbers of amphora sherds collected by the South Etruria Survey by region of provenance (AD 1–300).	245
Figure 5.13. Numbers of imported Roman amphora sherds collected by the South Etruria Survey: African, East Mediterranean and Sicilian/Calabrian (AD 350–650).	247
Figure 5.14. Weighted average numbers of African red slip ware sherds per decade (AD 100–700) collected by the South Etruria Survey.	248
 Chapter 6 The end of the Roman unity: the Tiber valley in the late sixth to seventh centuries AD	
Figure 6.1. Tiber Valley Project settlement sites in the early medieval 1 period (AD 550–700).	261
Figure 6.2. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the late antique 2 to the early medieval 1 period.	262

Chapter 7 The middle Tiber valley in the eighth and ninth centuries AD

Figure 7.1. Tiber Valley Project settlement sites in the early medieval 2 period (AD 700–900)	280
Figure 7.2. Numbers of settlement sites abandoned (pink), continuing (grey) and newly founded (green) at the transition from the early medieval 1 to the early medieval 2 period.	281
Figure 7.3. The Santa Cornelia area (northern Ager Veientanus) in the early medieval 2 period (AD 700–900).....	285
Figure 7.4. The Treia valley in early medieval 2 period (AD 700–900).	287
Figure 7.5. Weighted average numbers of <i>ceramica a vetrina pesante</i> sherds per decade collected by the South Etruria Survey..	298
Figure 7.6. Distribution of <i>ceramica a vetrina pesante</i> collected by the South Etruria Survey.	299

All maps produced with QGIS (3.6 Noosa) using data extracted from the Tiber Valley Project database and visualized with cartographic layers from the Regione Lazio (dati.lazio.it) under CC BY 4.0 licences, and SRTM data courtesy of the U.S. Geological Survey.

List of Tables

The middle Tiber valley: history of studies and project methodologies

Table 2.1. The South Etruria surveys and key publications. (Related survey areas outside the Tiber Valley Project study area include work on the Via Cassia and the Via Traiana Nova (Harris 1965) and the Via Gabina (Kahane and Ward-Perkins 1972.)	15
Table 2.2. Other surveys incorporated into the Tiber Valley Project database	23
Table 2.3. Numbers of restudied sherds by pottery class, with more than 100 examples in the Tiber Valley Project database (in order of start date)	30
Table 2.4. Numbers of restudied sherds by published pottery form type, with more than 50 examples in the Tiber Valley Project database (in order of start date)	31
Table 2.5. Date ranges of select ceramic form types in relation to chronological periods used in the Tiber Valley Project database (the most specific period attribution possible for each form type highlighted in bold)	36
Table 2.6. South Etruria Survey site classification (based on Potter 1979: 122–3)	41
Table 2.7. Tiber Valley Project: site classification	42
Table 2.7 continued. Tiber Valley Project: site classification	43

The protohistoric to late Republican landscapes of the middle Tiber valley

Table 3.1. Dating terminology used for the Bronze and Iron Ages (based on Pacciarelli 1996)	75
Table 3.2. Bronze Age sites in the Sabina Tiberina (based on data from Pacciarelli 2000: 88, fig. 46)	77
Table 3.3. Chronological divisions of the Orientalizing and Archaic periods used by the Tiber Valley Project	84
Table 3.4. Earlier occupation histories of sites recorded in the Tiber Valley Project database as late Republican-period villas	91
Table 3.5. Chronological divisions of the Republican period based on the South Etruria Survey pottery and used by the Tiber Valley Project	96
Table 3.6 continued. The second-century BC crisis on the basis of select surveys in Italy	115
Table 3.6 continued. The second-century BC crisis on the basis of select surveys in Italy	116
Table 3.6. The second-century BC crisis on the basis of select surveys in Italy (see Di Giuseppe 2018: table 6)	114

The early and mid-imperial landscapes of the middle Tiber valley (c. 50 BC–AD 250)

Table 4.1. Numbers and percentages of late Republican and early imperial-period settlement sites and rates of abandonment, continuity and foundation	133
Table 4.2. Towns of the middle Tiber valley: size, status and key monuments (Aug = Augustan; JC = Julio-Claudian)	141
Table 4.3. Roman site types (based on Potter 1979: 122–23; Potter unpub: 11–12; Kahane, Murray-Threipland and Ward-Perkins 1968: 154–6)	151
Table 4.4. Early imperial-period villas: pre-imperial occupation histories	157
Table 4.5. Size (ha) and estimated populations of towns and road stations in the middle Tiber valley	175
Table 4.6. Population estimates for the early imperial period (50 BC–AD 100) in the middle Tiber valley	176
Table 4.7. Kiln sites in the middle Tiber valley (based on Olcese 2012)	184
Table 4.8. Quantities of selected classes of pottery in the middle Tiber valley from the imperial (50 BC–AD 250), early imperial (50 BC–AD 100) and mid-imperial (AD 100–250) periods	197

List of Contributors

Helga Di Giuseppe	Independent scholar, Associazione Internazionale di Archeologia Classica, Italy.
Simon Keay	Professor of Roman Archaeology, University of Southampton UK.
Martin Millett	Laurence Professor of Classical Archaeology, Cambridge University, UK.
Helen Patterson	Independent scholar and former Assistant Director of the British School at Rome, Italy.
Christopher Smith	Professor of Ancient History, St Andrews University, UK, and former Director of the British School at Rome, Italy.
Robert Witcher	Associate Professor of Archaeology, Durham University, UK.

Preface

John Ward-Perkins's South Etruria Survey was pioneering in many senses. It was the first project of the British School at Rome (BSR), at least in Italy rather than North Africa, to involve a large team of collaborators; it was the first project which realised the sort of ambitions an institute with a permanent base in the country studied can aspire to, of sustained activity over many years, as opposed to the sort of three- to five-year projects that funding schemes in the UK otherwise permitted. And it left an important legacy: not just of material still to be studied (despite a stream of articles and Tim Potter's synthetic account), but of links with archaeologists active both in Britain and Italy who saw the value of pursuing the project further. When, in 1995, I found myself with the responsibility of developing an archaeology research strategy for the British School, despite the impressively ambitious project of my predecessor, Richard Hodges, at San Vincenzo al Volturno, the institution seemed to have lost the Ward-Perkins vision of a flagship project that might pull together the efforts of colleagues both in the UK and in Italy. Following the advice of a review commissioned by Tim Potter and led by Gillian Andrewes, the School agreed to divert the resource used for supporting various projects in Italy with small grants, and to set up a new position of Director of Archaeology, with the aim of developing a new ambitious project.

It was the winning vision of Helen Patterson, strongly encouraged by Tim Potter, not only to return to the unexploited potential of the South Etruria archive (fieldnotes, records, photographs, and enough pottery fragments collected from surface survey to fill two garages), but also to give the geographical boundaries of the South Etruria Project a new spin by treating the Tiber not as a boundary, but as the centre of the project, so bringing the left bank, the Sabina, into the picture. Taking a river valley as the definition of a survey project was a strategy which had been deployed successfully elsewhere, not least in Graeme Barker's Biferno valley project. But unlike most valleys, the Tiber valley offers significant contrasts between its two banks. Geologically, the volcanic landscape of Etruria contrasted with the limestone hills of the Sabina; in terms of settlement, Etruria from antiquity to the present has been relatively densely settled, with numerous independent centres, whereas the settlement of the Sabina has been thinner, and the clusters less notable. But different though the two banks might be, on both the impact of a great megalopolis in Rome made itself felt. The other strategic advantage was the possibility of confronting the more familiar results of the South Etruria Survey with new surveys: in the event, work at Forum Novum/Vescovio and Ocriculum/Otricoli proved fascinating and in various ways unexpected case studies.

It was one thing to set up a new post at the BSR to take responsibility for a major archaeological project (and one free from the increasing burdens of running the institution itself), but another to find the resources to bring together the necessary players to undertake such an ambitious project. A major boost was provided by the Leverhulme Trust, which provided funding for two three-year postdoctoral research positions, filled by Helga Di Giuseppe and Robert Witcher. It is the work of this trio, with Helen Patterson as principal investigator that forms the basis of the present volume. But the design of the project always foresaw the involvement of other players and institutions. The danger of withdrawing small grant funding for projects by UK Universities in Italy was to lose contact with those old allies (though in truth, because BSR funding was usually a small part of the funding of any individual project, the sense of ownership was rarely very strong). Invitations were issued to colleagues in the UK to participate in an initial workshop, and to join in the broader project. The response was enthusiastic, and there rapidly emerged a constellation of projects around the central re-examination of the South Etruria archive. One of the most fruitful was from Simon Keay and Martin Millett, who wished to apply the techniques of geophysical survey to the towns of the Tiber valley (and eventually beyond). Falerii Novi was only a starting point: the spectacular result, in the form of a remarkably complete city plan, was swiftly published. Other sites followed, including Ocriculum on the left bank, at a critical junction point between Lazio, Etruria and Umbria; a site of irresistible beauty, enhanced by the warm hospitality of Enrico and Benedetta Floridi, in whose back garden the town's Roman amphitheatre lay.

But no less important was the project close to the mouth of the Tiber at the maritime port of Rome, Portus. Here the sense of urgency to understand a neglected Roman landscape better was shared by Anna Gallina Zevi, the Soprintendente of Ostia, and Duke Ascanio Sforza Cesarini, who owned those parts of the landscape not expropriated by the Soprintendenza on the one hand, and the airport of Fiumicino on the other (he too was a generous host). This was a project that could only grow, and take on a life of its own. Simultaneously the collaboration between Southampton University and the BSR spawned a spin-off enterprise, meeting the growing market for geophysical surveys. The Archaeological Prospection Service of Southampton (APSS), in the shape of Kris Strutt, Sophie Hay, and a revolving crew of assistants, not only paid its way, but cast important light on a series of Roman sites, including Teanum Sidicinum (Teano) in Campania, Tibur (Tivoli) in Lazio, as well as Amara in Sudan and Utica in Tunisia.

A second major collaboration involved the British Museum, through Paul Roberts, together with the University of Birmingham, through Vince Gaffney (now at Bradford). The site of Vescovio in the Sabina, well-known to Helen Patterson, had clear potential, its attractive tenth-century church marking a centre important enough to have had a bishop, and the surrounding green fields covering whatever was left of the Roman settlement. Its Roman name identified it as a market centre, rather than a major town; and earlier excavations had largely exposed its forum and a small centre. Here it was possible to combine geophysics with excavation, with rich results: a well laid-out villa of early imperial date, a set of elite burials, including the sort of worked-bone funerary bed typical of central Italy, and even an unexpected amphitheatre.

While some of the projects originally associated with the Tiber Valley Project gained a life of their own, there were many other researchers who offered specialist contributions: Ray Laurence (then of Reading) studying the roads (with scientific techniques that could pin down the origin of basalt road-paving slabs); John Patterson of Cambridge working on inscriptions; Simon Stoddart working on Nepi, and with Ulla Rajala at Crustumium and many others. Equally significant as researchers from the UK were Italian collaborators: the 20 chapters of *Bridging the Tiber* (British School at Rome, 2004), the outcome of the project's first major conference, include some 23 Italian scholars, all more or less closely associated with the project. The most enduring collaboration, however, was to be that of Filippo Coarelli, already working in the upper Tiber Valley at the site of Pliny's villa at Tifernum Tiberinum. The joint forces of Coarelli and Patterson resulted in another conference, published as *Mercator placidissimus: the Tiber Valley in antiquity. New research in the upper and middle river valley* (Quasar, 2008), but also in survey and excavation of the birthplace of the emperor Vespasian at the north-eastern edge of Sabine hill-country at Falacrina.

It is entirely to the credit of Helen Patterson's inspired and sympathetic project leadership that so much grew out of it, with a host of collaborators (see Appendix 1) and a rich crop of publications (see Appendix 2). If the original core project has taken longer to finalize than some of its spin-offs (though many of these are still ongoing), that is a measure of the sheer complexity of what has been involved. To cover an extensive territory over a wide historical period, from the prehistoric to the medieval, required the inputting of tens of thousands of items of information into a database (and that database has been consigned to the Archaeology Data Service and can be consulted there), and the patient extrapolation of pattern from a haze of data points. Had the task of publishing the South Etruria material alone been a simple one, Ward-Perkins, who was nothing if not energetic in publishing, would have done so himself. Now two decades have passed since the Tiber Valley Project was first conceived; but in the interim it has generated ripples of debate, and their consequent publication. The full results of the core Tiber Valley Project presented here are well worth the wait.

Andrew Wallace-Hadrill
Director of the British School at Rome (1995-2009)
Cambridge, January 2019

Chapter 1

The Tiber Valley Project: an introduction

Simon Keay, Martin Millett and Christopher Smith

The Tiber Valley Project was a major and multi-faceted research programme undertaken by the British School at Rome (BSR) between 1997 and 2004. Following his appointment as Director of the BSR in 1995, Andrew Wallace-Hadrill worked with Tim Potter, then chairman of the Faculty of Arts, Humanities and Letters to develop a new research focus for the School. With the selection of Helen Patterson as Assistant Director (Archaeology) in 1996, it was agreed that this project should involve a programme of research on the Tiber valley. This was designed both to contribute to the understanding of this important area to the north of Rome and to act as a focus to attract a new generation of scholars to work on the archaeology of Italy, thereby giving a boost to Italian archaeology in UK universities.

From the outset, the programme was designed to be multi-focal, encouraging the development of a series of externally funded projects as well as enabling PhD students and others to work collaboratively on distinct but related themes. At its core was a project to re-evaluate the British School at Rome's own South Etruria Survey, conceived by its Director John Ward-Perkins in the 1950s to 1970s, focusing not only on the evidence gathered by that project, but also on the broader archaeological and interpretative models which had developed subsequently. This strand of work was funded by the Leverhulme Trust on the basis of a project design (see Millett and Patterson 1998), and ran from 1998 to 2002. Led by Helen Patterson, this core part of the project employed two postdoctoral researchers, Helga Di Giuseppe and Robert Witcher.¹ Financial support from the BSR enabled this work to be continued from 2002 to 2004.

The Leverhulme project was complemented by a series of other pieces of research (discussed below). These varied in scale and ambition from thematic studies by individual scholars to substantial new field projects

with additional funding. The two larger endeavours both complemented the Leverhulme project by focusing on urban sites. The first, run by Simon Keay and Martin Millett and funded by the then Arts and Humanities Research Board, was called Roman Towns in the Middle Tiber Valley Project. It involved the Universities of Durham, Southampton and later Cambridge, and deployed surface survey methods to look at a variety of sites across the region. The second, run by Helen Patterson, Paul Roberts and Vince Gaffney involved the British Museum and the University of Birmingham together with the BSR. This focused on the survey and excavation of the town of Forum Novum (Vescovio). The work on a range of smaller sites is well represented in the two publications that grew from the Tiber Valley workshops and seminars held between 1997 and 2004 (Patterson 2004; Coarelli and Patterson 2008).

The overall programme was an ambitious undertaking, examining an area of the middle Tiber valley covering 3500 square kilometres, tracing its development across the two millennia from 1000 BC to AD 1000 (Figure 1.1). It has had an enormous impact on the discipline, not least by networking a whole new generation of researchers.² The number of publications and outputs from the project is substantial.³ At various stages, dozens of UK and Italian staff were involved in processing data and producing interim reports. Workshops, conferences and individual stand-alone summary articles have all enriched the debate.

The Leverhulme-funded project had at its heart a GIS database which gathered the relevant information from decades of fieldwork and combined this with the results of a thorough restudy of the finds by a group of specialist researchers. These data have, as originally intended, been made fully accessible via their consignment with the Archaeology Data Service. This database forms both a key outcome of the project and also the driver for new ideas and new interpretations. A series of published papers have presented ideas about a variety of aspects of research, all of them based on earlier versions of the database. It was always intended that once the database was completed, there would be a monograph in which the three lead researchers would

¹ In her role as BSR Assistant Director, Helen Patterson led the project and developed research on the late antique and early medieval periods (see Chapters 5–7). Helga Di Giuseppe undertook extensive library research to gather data on published sources for surveys and excavations of all periods and also undertook research on the black-gloss pottery and the Republican period (see Chapter 3). Robert Witcher developed the project databases and GIS, working in particular with the South Etruria Survey archive, and conducted research focused on the project methodologies and data integration, and on the archaeology of the imperial period (see Chapters 2 and 4).

² For a full list of project participants, see Appendix 1.

³ For a full project bibliography, see Appendix 2.

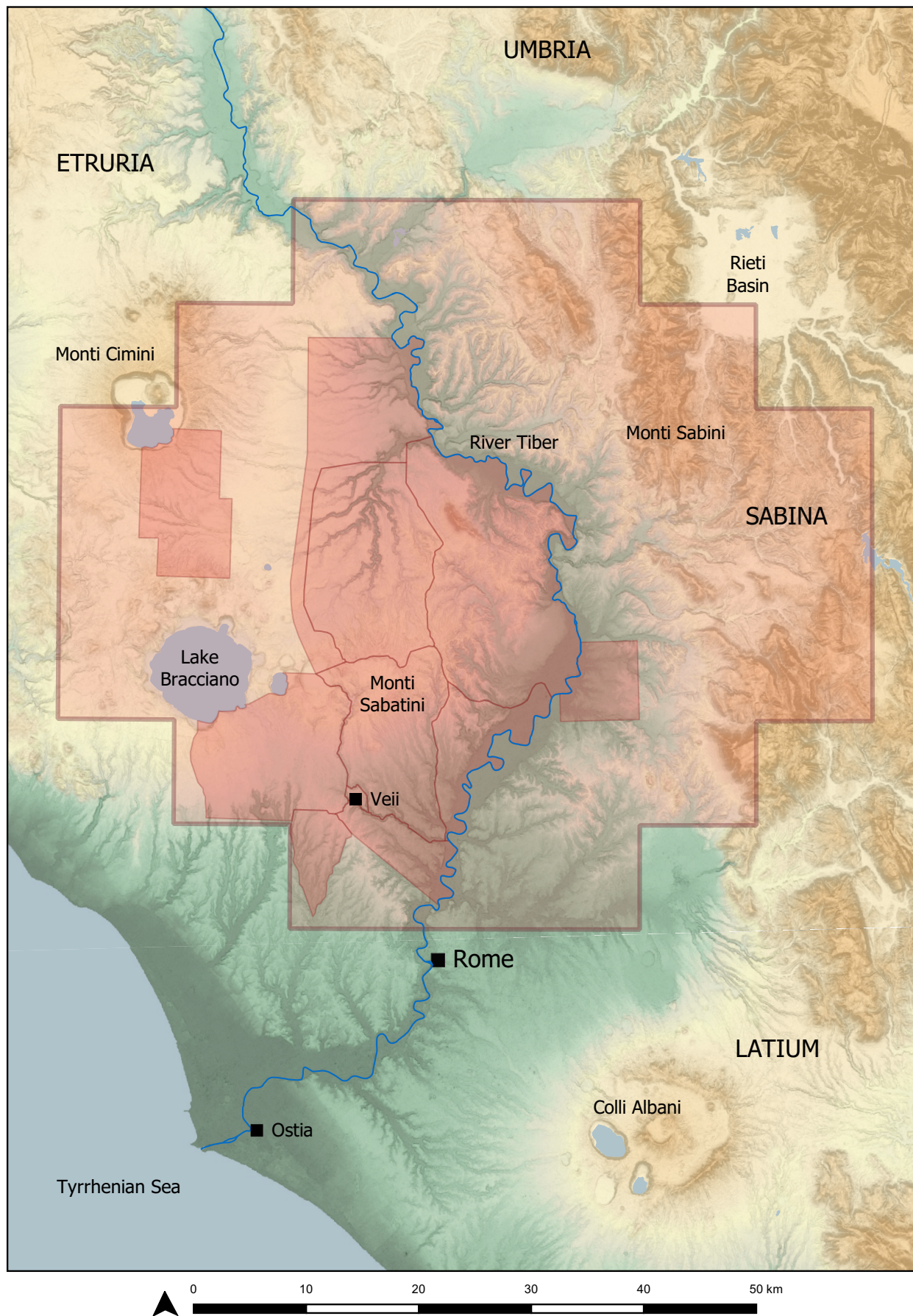


Figure 1.1. Location of the Tiber Valley Project study area and the South Etruria Survey.

have space to present their considered views on the evidence from the region. This volume represents that outcome of the Leverhulme-funded project.⁴

This introductory chapter reviews the original South Etruria Survey; the overall results of the research programme; the reasons for the launching of the Leverhulme Tiber Valley Project; the organization of that project; and its aims, objectives and methodologies. Wider reflections on the results presented in Chapters 2 to 7 are provided in the concluding chapter.

1.1 The South Etruria Survey

John Ward-Perkins became Director of the BSR in 1946.⁵ His archaeological career had been fostered under the patronage of Sir Mortimer Wheeler, and he brought an organizational flair which had developed through his wartime duty, as well as a considerable degree of personal ambition. Italian archaeology was not his first priority; instead he completed his work with Joyce Reynolds in Tripolitania,⁶ whilst also working on war damage across Italy as part of his varied efforts to create administratively robust and collaborative partnerships which could involve the BSR (these included the foundation of both the *Unione Internazionale degli Istituti di Archeologia, Storia e Storia dell'Arte* in Roma, and the *Associazione Internazionale di Archeologia Classica*).

In the mid-1950s, he was at something of a low ebb however. Tripolitania was largely concluded, and the next big project had not yet emerged for him. It was at this stage that he met Martin Frederiksen, who held an award at the BSR in 1954, and he began to work with Frederiksen in the north of Lazio. The original focus of the work was on roads, and it was straightforwardly topographical, developing the tradition of work pioneered (albeit in an idiosyncratic and less systematic way) by the third Director of the BSR, Thomas Ashby.⁷ Ashby was working at a time when building and agricultural change were transforming the Italian landscape in the early twentieth century, and the pace of change would only accelerate.⁸ Both Ashby and Ward-Perkins were indefatigable recorders of the rapidly disappearing traces of antiquity.

⁴ The chapters presented here have been completed at various point over the past decade. The volume has been brought together by Robert Witcher, with the support of Martin Millett and Christopher Smith. All the maps, charts and tables have been produced by Robert Witcher from the project database. Our thanks to Peter Attema, Barbara Borg and Chris Wickham for their assistance with the volume, as well as to Durham University and the BSR.

⁵ There is no biography of Ward-Perkins, but the BSR has an extensive archive. The story told here is given in more detail in Smith 2018.

⁶ Reynolds and Ward-Perkins 1952.

⁷ Ward-Perkins 1955, 1957; Frederiksen and Ward-Perkins 1957; Ward-Perkins.

⁸ Ashby 1927.

As time went on, Ward-Perkins began to see a larger potential, and the South Etruria Survey began to take shape. He gradually came to define more clearly his strategic aims and objectives as he also evolved a working pattern for the South Etruria Survey.⁹ The survey combined excavation at key moments, with ancient Veii being a central focus for the BSR, but the work was dominated by fieldwalking. Although not invented by Ward-Perkins, the method was unusual in Italy, and he developed it to cover much larger areas cumulatively than was normal for field surveys. A particularly novel characteristic of the BSR's fieldwalking was the collection and retention of finds, primarily pottery, the study of which Ward-Perkins encouraged as a means of dating sites (see Chapter 2). Importantly, Ward-Perkins also encouraged the involvement of a new generation of scholars, such as Barri Jones and Tim Potter, whose collective work led to the development of the field methods. As a consequence, the results—plotted carefully over years and preserved in paper records at the BSR (as well as the actual finds)—gave a remarkable picture of the evolution of the Tiber valley from the prehistoric period to the early middle ages. It is worth emphasising that Ward-Perkins from the beginning saw the necessity for and value of a long timescale for the study.

What were the factors which made the Tiber valley such a fruitful area of study? There is no doubt that practicality was significant; the area was relatively close to the BSR, and it was possible to engage a fairly large workforce, including BSR residents who were not archaeologists but who could be persuaded to participate. It is remarkable how little funding Ward-Perkins ever received for the project, so this was not a trivial consideration.

South Etruria had certain geological and natural features which also supported and constrained a large-scale project. It is relatively fertile and so could support a significant agricultural presence. Well-watered by the rivers that flow down the hills, cutting deep fissures where the bedrock is soft, the landscape varies between promontories with steep cliffs, and volcanic craters, some of the latter now drained. Of key importance too was the agrarian revolution which was happening in Italy from the 1950s. The use of tractors and heavy ploughs was becoming more widespread as the larger fields that resulted from land reforms were increasingly brought into cultivation. Such deep ploughing and the bulldozing of boundaries brought much fresh archaeological material to the surface.

⁹ It is regrettable that there is no bibliography of the South Etruria Survey itself, and the several updates which Ward-Perkins gave. Examples of this include Ward-Perkins 1965.

To those with an interest in finds from rural sites, such destruction offered a unique research opportunity. The South Etruria Survey focused upon the upland region to the north of Rome, between the Tiber to the east and the lakes of Bracciano and di Vico to the west. Its focus, however, was largely on microregions within this area defined by their relationship to the larger settlements, notably the Ager Veientanus, the Ager Capenas, the Ager Faliscus and the area around Sutri to the west. Given the significance of ancient urban settlements in the dynamics of this landscape, it is unsurprising that one of the surveys that was generated by the larger project focused on the Ager Veientanus. Only later did the approach developed in South Etruria Survey evolve to study the territory of a town through systematic sampling, for example in Graeme Barker's Tuscania survey in the 1980s.¹⁰ An additional consequence is the significance of roads, since communication is not easy across this landscape. Following the roads, as Ward-Perkins originally did, was a sensible way of understanding the critical infrastructure of the region.

One of Ward-Perkins's greatest gifts was that of administrative drive—his energy seems never to have flagged. Season after season, with increasingly large teams and more supporters, the South Etruria Survey grew and it was Ward-Perkins's skill to be able to add sites which answered key questions. Critical to the whole exercise was the ability to date the pottery which was being gathered and so excavations at Veii,¹¹ Santa Cornelia,¹² Narce¹³ and Nepi¹⁴ amongst others all targeted areas where the pottery sequences were at their weakest. The survey eventually covered nearly 1000 square kilometres and recorded over 2000 sites.¹⁵ Ward-Perkins remained at the BSR until his retirement in 1974, and this had the happy consequence that his directorship—the longest to date—permitted a very long-term focus. He had also enabled a series of scholars to publish the results from the different microregions in the *Papers of the British School at Rome* but he himself never drew together the synthesis that he had planned. This task was taken up by Tim Potter, then at Lancaster University, who had led the work at Narce. *The changing landscape of South Etruria*, published in 1979, was a landmark publication in many ways.¹⁶

Potter's book was a comprehensive, accessible and clear synthesis, which crystallized the key moments of change and transition. It starts with a brief introduction to survey and excavation in South Etruria, before moving on to provide key contextual information

about the landscape. There follows a summary of the prehistoric development of the region, moving from the Palaeolithic, into the Neolithic, Eneolithic and Bronze Age. Potter's account remains a helpful overview of settlement trends in southern Etruria, although recent accounts are beginning to alter the overall picture.¹⁷ There are pervasive difficulties in the chronology of later prehistory in particular because there is a gap between those reliant on ceramic dating and using radiocarbon dating.¹⁸ Metal typo-chronologies and social and economic change map poorly onto each other, and different areas of the peninsula look to different comparanda and material, so typically the southern chronologies are based on ceramics and look to the wider Mediterranean and the northern chronologies look to metalwork and developments in Temperate Europe.

In the context of the Tiber Valley Project, however, the most significant part of his study concerns the chapters which synthesize trends relating to the first millennium BC (Potter's Classical period), and the transition from the Roman to medieval periods (AD 300–1300). For the first of these, Potter identified a major population explosion in the first millennium BC (the Early Iron Age and Orientalizing period), and continuity into the fourth century BC, when major fortifications could be tracked across the region, which he saw as the outcome of the period of sustained population growth. What Potter calls the Classical period, down to the first century AD, sees the development of settlement to peak levels. Transformations of the landscape through deforestation, exploitation of resources, and the emergence of villas and farmhouses on the one hand are signs of a thriving rural economy, but rapid turnover in some sites suggests also the pressure of this competitive environment. This, however, was the high point of the economy; rural life thereafter went into a slow decline, which then accelerated with the abandonment of the rural settlements for more defended and fortified sites, reflecting a narrative of the decline and fall of the Roman empire and growing incursions from the north. However, the picture is not straightforward; the pace, date and reason for this change varied across the region. Continuity in some areas contrasts with innovation elsewhere, and the rise of a different quality of documentary evidence permits the assessment of the role of the new infrastructures of Christianity, for instance, in driving change.

¹⁰ Barker and Rasmussen 1988.

¹¹ Cascino, Di Giuseppe and Patterson 2012

¹² Christie 1991.

¹³ Potter 1979.

¹⁴ Rajala 2013.

¹⁵ Potter 1979: 5.

¹⁶ Potter 1979.

¹⁷ Summary of the whole of the earliest period in Mussi 2001; for a summary continuing through to the Late Bronze Age, Guidi and Piperno 1992; for the Bronze and Iron Age, Bietti Sestieri 2010. For a summary of the state of play in southern Etruria, see Negroni Catacchio 2012.

¹⁸ Loney 2013: 19–34; a key list of dates is provided by Skeates 1994. See also Skeates 2003; Cocchi Genick 2004; Pearce 2013.

One impact of the South Etruria Survey was that it inspired as well as accompanied major Italian work on the landscape, and in addition to the longstanding *Forma Italiae* series, and a deep tradition of local topographical studies, medieval Italian archaeology was becoming increasingly significant, partly as a result of figures such as David Whitehouse and Richard Hodges (both later directors of the BSR) and also historians such as Chris Wickham, all of whom worked with Riccardo Francovich at the University of Siena, one of the key figures in this intellectual tradition.¹⁹

Neither Ward-Perkins nor Potter were unaware of the methodological difficulties inherent in what they were attempting to undertake. The extent to which surface scatters are representative of population densities, the problems of dating ceramics, the various biases intrinsic in the collection of surface material, and the very coarse-grained interpretation provided even by such a large dataset were all flagged up at the start of *The changing landscape of South Etruria*.²⁰ Despite this, however, Potter's synthesis struck a note of positivist certainty that was soon to appear overly innocent in the light of important theoretical developments in our understanding of archaeological evidence in the 1980s and 1990s.²¹ These included increasingly nuanced understandings of the relationship between surface materials and sub-surface archaeology, and how to distinguish between 'site' and 'off-site' material. Geophysical survey was beginning to provide an important tool in teaching us more about the character of the sites themselves. There were also some major challenges to Potter's chronological scheme, owing to the fact that the sites he discussed were dated on the basis of ceramic chronologies current in the 1950s and 1960s, which had been superseded by major publications in the 1980s and 1990s, notably those relating to black-gloss and African red slip wares, coarse-wares and Forum Ware (see below). These very different chronologies inevitably raised questions about Potter's ideas on the pace of settlement development in the later Republican and imperial period, and in the transition to the medieval period.

The degree of uncertainty that grew up over Potter's synthesis was in some senses exacerbated by the realization of how much weight was being placed on survey data by historians. One of the South Etruria Survey's main findings for Potter's Classical period was that the late second-century BC landscape was densely settled, in total contrast to the alleged complaint of Tiberius Gracchus that it was deserted. This led to complex arguments over the spread of slave-based

agriculture, the nature of land ownership and the entire economic system of the later Republic.²² As this argument morphed into the still unresolved arguments over Roman demography, survey data became both a critical tool and a key problem in assessing the merits of diverse and divergent arguments.²³

So by the late 1990s the South Etruria Survey represented a substantial dataset covering a vast area, which had itself been subject to repeated subsequent scrutiny, and was adjacent to areas where additional work had been undertaken to answer a range of questions whose significance was not to be doubted. Furthermore, the specific findings of the South Etruria Survey, as outlined by Potter, were both centrally significant to key debates surrounding the economy and demography of Roman Italy and profoundly questionable due to new pottery sequences. So it was timely to reconsider the material on a wider scale.

1.2 An overview of the Tiber Valley Project

The Tiber Valley Project (1997–2002) was co-ordinated by Helen Patterson, then Assistant Director (Archaeology) at the BSR, and involved participants from the Universities of Bradford, Birmingham, Bristol, Cambridge, Durham, Leicester, Oxford, Reading, Southampton and the British Museum, as well as from a range of Italian institutions. Its aim was to examine changing landscapes on both sides of the river in the middle Tiber valley from approximately 70 km north of Rome down to the mouth of the river at Ostia from c. 1000 BC to AD 1000 (Figure 1.1), through a review of extant archaeological survey data and the execution of a number of targeted archaeological projects. One of the critical features of the Tiber valley Project, as opposed to the South Etruria Survey, was the inclusion of the Sabina, the so-called left bank of the Tiber, incorporating the results of survey work at Farfa by John Moreland. (The more distant survey of the Rieti basin led by David Mattingly was not incorporated into the study).²⁴ This inclusion of the Sabina Tiberina was a significant choice since it indicated that the project's intention was comparative.²⁵

The research programme comprised three levels of activity:

¹⁹ See, for instance, Francovich and Hodges 2003.

²⁰ Potter 1979: 10–18.

²¹ The literature on survey methodology is huge; for a more or less contemporary project see Barker and Mattingly 1999–2000; more recently Johnson and Millett 2012.

²² The classic statement remains Frederiksen 1971; see also Hopkins 1978.

²³ The demography debate is now an industry of its own. A milestone publication was Brunt 1971, but Brunt gave scarce attention to archaeology. His minimalist figures are now the subject of intense challenge, and for an interesting attempt to use survey data (though without reference to the Tiber Valley data) to support a maximalist figure, see Launaro 2011.

²⁴ See Coccia and Mattingly 1992, 1995.

²⁵ Patterson and Millett 1998.

Level 1 was the Leverhulme-funded project directed by Helen Patterson, which is the subject of this volume. Its objective was to create a comprehensive database that would incorporate material from all of the rural sites from the South Etruria Survey, as well those from then unpublished BSR work (including John Ward-Perkins's survey of Veii²⁶ and a major survey at Farfa), as well as several Italian surveys.²⁷ This was linked to a GIS to make it possible for the team to produce a new generation of distribution maps for each historical periods. This necessarily involved revising the chronology of all the sites in the light of recent ceramic publications, by going back over the ceramic material collected during the survey and subsequently stored at the BSR. Thus, in many ways the Tiber Valley Project was a test-bed for diverse methodologies, a pioneer in the reassessment of so-called legacy data, which has now become a major field of research,²⁸ and a challenging historical exercise.

The success of this approach can be gauged from the fundamental article of Patterson, Di Giuseppe and Witcher (2004), which highlighted three major differences in interpretation between Potter's synthesis and the results of the Tiber Valley Project.²⁹ First, Potter saw a fairly even growth through his early period, but the Tiber Valley Project detected more instability and change in the fifth and fourth centuries BC. Similarly, Potter's model of steady growth through the Republican period seemed at odds with the historical sources, but depended on his analysis of black-gloss pottery, which at the time of the South Etruria Survey was assigned a relatively long life. Taking into account the more recent revised chronology of black-gloss pottery, which dated it to earlier in the Republican period, the authors pointed to a diminution of evidence in the second and first centuries BC, and a concentration at Rome as a result of rural to urban migration. If so, this would fit the historical record better, although the historical record itself is problematic. For the late Roman and early medieval period, again the major change has been the greater visibility of datable ceramics after closer scrutiny, suggesting more continuity across the period, and a later date for the retreat to upland sites, which might then suggest different motivations for the changes than Potter had given.

The debates over the pace and character of the collapse of the Roman empire have been intense, and are reflected in the relevant chapter of this book. The significance of the events of AD 410 is now regarded as perhaps more symbolic than real.³⁰ However, Bryan

Ward-Perkins made a strong challenge to the idea that the fall of the Roman empire was gradual and that we should emphasize continuity instead.³¹ This debate then follows through into arguments over the depth of the Italian crisis. Within this debate, pottery has proved increasingly important for discussions of trade and commerce, and the increasingly accurate identification of the origins and chronological point of specific forms is critical, so again the Tiber Valley Project has left a substantial legacy for future study.³²

One of the key findings is that here at least we do see clear differences between the two banks of the Tiber, with the Sabina seeming to have an economic system separate from that of Rome, especially from the sixth century AD. If this is correct, both in areas of continuity and where new settlement patterns can be identified (viz. the so-called *domuscultae*) then it reinforces the significance of focusing on the relationship between the situation at Rome, and local responses to change. The economic, political and social power of the city was fundamental to the ways in which local systems operated, but when Rome faltered, those systems adapted. So the Tiber Valley Project has more than anything else demonstrated the complexity of the central Italian environment, a complexity aided by the relatively high population and strong resource-base, which allows for multiple outcomes in different economic circumstances.

Level 2 comprised a series of parallel thematic studies into a range of topics which involved both fieldwork and the specialized study of finds. Central to the whole endeavour was the restudy of the finds collected during the South Etruria Survey, as well as the analysis of finds collected from the subsequent surveys incorporated in the database. This work, which involved a sherd-by-sherd re-examination of the pottery and glass, was undertaken by a team including Roberta Cascino, Helen Patterson, Helga Di Giuseppe, Alessandra Bousquet, Sabrina Zampini, Fabrizio Felici Sergio Fontana and Franco Del Vecchio. The results of their work were incorporated within the database and GIS and provide the fundamental underpinning of the studies in the book.

Other scholars were involved in the development of a range of complementary studies. Ray Laurence, for example, analysed the *selce* (basalt) slabs used in the major consular roads in the Tiber valley in order to characterize their geological origins and to better understand the economics of their transport across the region.³³ Will Clarke undertook an analysis of the different ornamental stone types found at sites in

²⁶ See now Cascino, Di Giuseppe and Patterson 2012.

²⁷ The database is archived with the Archaeology Data Service and can be freely downloaded at <https://archaeologydataservice.ac.uk/>

²⁸ Allison 2008 for an introduction; Witcher 2008b for an example from the Tiber Valley.

²⁹ Patterson, Di Giuseppe and Witcher 2004a.

³⁰ Lipps, Machado and von Rummel 2013.

³¹ Ward-Perkins 2005; cf. Heather 2005; *contra* e.g. Wickham 2009.

³² A good example is Cirelli, Diosono and Patterson 2015.

³³ Laurence 1999.

the South Etruria Survey.³⁴ Shawn Graham's PhD by contrast applied network analysis to brick stamps from sites within the middle Tiber valley with a view to understanding social relationships between the producers based at the brickyards and the consumers of the building materials.³⁵ Andrew Wilson studied the distribution of rural cisterns and aqueducts to gain a better understanding of water management and horticulture in the regional economy of the region.³⁶ John Patterson reviewed the very rich epigraphic and historical information to obtain a new understanding of the economy of the Tiber valley and the dynamics of imperial involvement in its development;³⁷ and Helen Goodchild studied patterns of agricultural productivity through an analysis of settlement data and the creation of crop suitability maps within a GIS.³⁸

Level 3 involved the development of new projects that were specifically co-ordinated with the aims of the overall research programme. These included Roman Towns in the Middle Tiber Valley Project, led by Simon Keay and Martin Millett and which received AHRB funding; Nepi, (Simon Stoddart and Ulla Rajala),³⁹ Forum Novum (Vince Gaffney, Helen Patterson, Paul Roberts)⁴⁰ and Ostia (Janet Delaine).⁴¹ Of these, the Roman Towns work (1997–2004) was specifically designed to make use of geophysics, using expertise based at the Universities of Southampton and Durham (later Cambridge). The various sites studied provide a diverse list of urban examples from major sites such as Falerii Novi, Capena and Ocriculum to small road stations, for example Ad Baccanas and Forum Cassii on the Via Cassia and Castellum Amerinum on the Via Amerina.⁴² This project also led on to a much larger survey of Portus near the mouth of the Tiber, which has itself resulted in a long-term project there.⁴³ At Falerii Novi, after Rome's defeat of a revolt led by Falerii Veteres in 241 BC, the remarkable geophysics results have revealed much of the layout of the town, with its roads, houses, forum and theatre. Falerii Novi was a new town which formed part of the substantial intervention in central Italy in the third century BC as Rome dominated the Faliscan and Etruscan territories. Its classic Roman town plan when compared with the evidence produced by the survey has been much debated.⁴⁴

Ocriculum, the other monumental town studied as part of the Roman Towns project shows the remarkable richness of imperial-period central Italy, but in the context of a much less formal plan, with only a small area laid-out on a grid. Substantially equipped with a theatre, amphitheatre and baths, the site probably benefitted both from its harbour location on the Tiber and its position on the Via Flaminia. Here, however, there is a mismatch between the relatively small settlement and the very high-quality sculpture and architecture found here, which suggests that the town may have been unusually well-connected, perhaps already from the time of Julius Caesar. This elite support, and perhaps as a consequence the town itself, does not survive beyond the end of the Roman empire.⁴⁵

The work by Helen Patterson, Paul Roberts and Vince Gaffney at Forum Novum highlighted one characteristic of certain towns (including Ocriculum), namely that their monumental public centres were surrounded by very little in the way of residential building. This suggests that in the later Republican and imperial periods, these were important centres for administration, entertainment and cult, which principally served a scattered rural population, perhaps also acting as regular periodic market centres as well as hosting larger seasonal or annual festivals. Despite the absence of a substantial residential population, such sites clearly became the focus of patronage and euergetism. It follows that this represents a period of relative calm and security when life was sufficiently ordered that a calm routine of market days and predictable festivals could exist, as well as the mechanisms of communication.⁴⁶ So, unmonumentalized riverside or roadside settlements (such as Castellum Amerinum and Ad Baccanas) and monumental but largely non-residential central places offer examples of how in the settled Roman empire local communities engaged with and profited from stability and trade.

In sum, the work on urban landscapes in the middle Tiber valley reveals that regularly gridded towns such as Falerii Novi were the exception rather than the rule, and that there was considerably more variety to Roman urban forms in this part of Rome's *suburbium* than has generally been assumed. It underlines the need to move beyond the commonly received urban stereotypes to understand the nature of such variation in terms of the functions, histories and geographical contexts of the different settlements. It also suggests that *mansiones* remained a critical part of an overall landscape of power and control, and of an administrative system; it is perhaps surprising therefore that of three such sites studied, two did not survive the late antique period,

³⁴ Clarke 2008, 2012.

³⁵ Graham 2006.

³⁶ Wilson 2008b.

³⁷ J.R. Patterson 2006.

³⁸ Goodchild 2006, 2008, 2013.

³⁹ Mills and Rajala 2011; Rajala 2013.

⁴⁰ Gaffney, Patterson and Roberts 2004a, 2004b.

⁴¹ Delaine 2001, 2002, 2004, 2005.

⁴² Keay and Millett 2016.

⁴³ For a recent overview, O'Connell *et al.* 2019; for further details, see <http://www.portusproject.org>

⁴⁴ Keay *et al.* 2000.

⁴⁵ Millett 2007; Hay, Keay and Millett 2013; Wallace-Hadrill 2013; Keay and Millett 2016.

⁴⁶ See Frayn 1993.

though one (Forum Cassii) seems to have gained a new ecclesiastical focus in the ninth century.⁴⁷

The imperial development of Ostia and Portus at the mouth of the Tiber, and the complex social and economic structures which sustained their growth and function, have an important bearing upon the relative prosperity of the middle Tiber valley, as well as the city of Rome. One major contribution of the Tiber Valley Project was to foster our understanding of both of these sites and to show that they had very different histories. While the bustling river port of Ostia is well known in many aspects, it is also poorly understood in others, notwithstanding the remarkable preservation of the site. Janet Delaine's work on the micro-history of individual *insulae* within the context of the Tiber Valley Project was a key step in being able to track individual choice and transformation in this most unusual of cities.⁴⁸ By contrast, the systematic geophysical survey of the maritime port of Portus by Simon Keay and Martin Millett⁴⁹ greatly enhanced our understanding of the huge Claudian harbour basin and associated canals, the internal hexagonal harbour and canals built under Trajan, the warehouses, administrative buildings and temple, and their surrounding landscape.⁵⁰ It also showed that, in contrast to Ostia, its residential occupation was very limited, even though it eventually gained constitutional autonomy as a town in the early

fourth century AD. While Portus was probably intended to function in tandem with neighbouring Ostia *ab initio*, its role was primarily to process incoming cargoes of grain, olive oil, marble and a range of luxuries in huge quantities destined for Rome and, one guesses, for the *suburbium*. It also seems likely that it was sustained by a comparatively small population that probably fluctuated in tandem with the shipping seasons. The results of the work at Ostia and Portus thus lend support to the impression of urban variety gained from the study of towns in middle Tiber valley.

In the next chapter, Robert Witcher considers the history of studies in the middle Tiber valley and details the collation of the various legacy data including the restudy of the South Etruria Survey material. He also provides a methodological analysis of the strengths and weaknesses of the resulting dataset and considers the implications for the use of the data for characterizing long-term settlement change; the chapter concludes with an overview of the key project results. His analysis forms an important backdrop to the chapters that follow; these discuss each of the major periods of study in chronological order: the Bronze Age to the end of the Republic (Chapter 3 by Helga Di Giuseppe), the early and mid-imperial periods (Chapter 4 by Robert Witcher) and the late antique and early medieval periods (Chapters 5 to 7 by Helen Patterson).

⁴⁷ Johnson, Keay and Millett 2004.

⁴⁸ Delaine 2001, 2002, 2004, 2005.

⁴⁹ Keay *et al.* 2005.

⁵⁰ This work has been boosted by the more recent study of the Isola Sacra in the course of the *Portus Project*; Germoni *et al.* 2011.