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Pluralistic Landscapes of Northern Roman Britain

A GIS multiscalar approach to archaeology

Volume 1 of 2

by James David Bruhn

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A thesis submitted for the degree of Doctor of Philosophy

The University of Durham
Department of Archaeology

2008

2 1 JAN 2009

To My Parents
David
And
Patricia Bruhn
For all their support

I want to create wilderness out of empire
-Gary Snyder

Abstract

Traditional studies of Roman frontiers have focussed on the internal workings of the Roman military or have stressed the continuity of Iron Age society. Such approaches have downplayed or avoided discussions of social interaction. This is in contrast to developments in wider frontier studies in archaeology. This thesis examines pluralistic social settings in the northern frontier area of Roman Britain, addressing the subject in a multiscalar, diachronic, and holistic manner, which incorporates advances made in both Iron Age archaeology and Roman studies.

Drawing on developments in GIS, this study incorporates landscape analysis with consideration of settlement and finds distribution. The implications of the utilisation of GIS are explored as well as theoretical issues concerning archaeological time. New methods are proposed to address the impact of Roman Imperialism. Three study areas are chosen for a systematic survey: Inveresk, Newstead and Burnswark. Each is subjected to a variety of spatial analysis techniques and statistical tests. This material is considered within the context of plurality and the study addresses what it reveals about the nature of frontiers. Trends are discerned within the data with regard to the three study areas, in the level of interaction between the Roman garrisons and local indigenous population. This suggests that the northern frontiers of Roman Britain are far from homogenised and while there are some general similarities, there is evidence for localised, distinct regional differences. The results highlight the benefits of adopting new methods and techniques in Roman archaeology, and that there is a considerable potential in the archaeological material of southern Scotland during the Roman period which should be further explored.

Table of Contents

Volume 1
Abstract iii
Table of Contents iv
List of Figures viii
List of Tables xii
List of Equations xiv
Declaration and Copyright xv
Preface xvi
Acknowledgements xvii
1 An Holistic Frontier 1
1.1 Introduction 1
1.2 Post-colonial Studies and Roman Archaeology 2
1.3 Ethnicity 3
1.4 Frontiers 4
1.5 Plurality and Roman Frontiers 6
1.5.1 Approaching Pluralistic Social Settings 8
1.6 The Aims of the Study 10
1.7 Outline of the Thesis 11
1.8 Case studies 12
1.8.1 Study Area 13
1.9 Summary 15
2 Past Approaches to the Northern Frontiers 16
2.1 Introduction 16
2.2 Textual Sources on the Northern Frontier 17
2.3 'Roman-native' Divide 20
2.4 Past Biases 22
2.5 Conclusion 27
3 Theoretical Considerations of Spatial Analysis and GIS in Archaeology 29
3.1 Background on Spatial Analysis in Archaeology 30
3.2 Theory and GIS 32
3.2.1 Introduction 32
3.2.2 Critiques of GIS 33
3.2.3 Theory-free Tool? 36
3.2.4 Worldview 38
3.2.5 Feminism and GIS 39
3.3 Archaeology and GIS 40
3.3.1 General 40
3.3.2 Data and GIS 41
3.4 Moving Toward a Social Model of Archaeology and GIS 42
3.4.1 Problems 42
3.4.2 Solutions 45
3.5 Impacts on This Study 47
3.6 Conclusion 48
4 Memory, Metaphor and Archaeological Time: A Dialogue with Marcel Proust ... 49
4.1 Introduction 49
4.2 Archaeology and Time 49
4.3 The Temporal Divide Between Roman and Prehistoric Studies 51
4.4 Memory as Metaphor for Time 56
4.5 Considerations on Time in Regard to Rectilinear Enclosures 59

4.6 Conclusion 62
5 Dealing with the Data: Practical and Theoretical Considerations 64
5.1 Introduction 64
5.2 General Discussion of the Study area Data 65
5.2.1 Introduction 65
5.2.2 Surveys: 66
5.2.3 Settlement Data 66
5.2.4 Aerial Photography and Factors Affecting Cropmark Distributions 67
5.3 Methodology: Settlement and Finds Spatial Analysis 71
5.3.1 Introduction 71
5.3.2 Spatial Analysis of Settlement Patterns 71
5.3.3 Analysis of Spatial Relationship Between Roman Infrastructure, Settlement Patterns and Roman Finds 71
5.3.4 Anisotropic Cost Surfaces 72
5.3.5 Viewshed Analysis 72
5.4 Site Classification 73
5.4.1 Introduction 73
5.4.2 Local Settlement 73
5.4.3 Roman Forts, Fortlets, Camps and Roads 77
5.4.4 Roman *Vici* 78
5.5 Roman and Romano-British Material Culture 84
5.5.1 What is 'Roman' Material Culture? 85
5.5.2 What is the Function of 'Roman' Material in Non-Roman Contexts? 88
5.5.3 Are Biases Created by Focusing on 'Foreign' Material? 92
5.5.4 Types of Material that Factor into the Discussion 92
5.5.4.1 Pottery 93
5.5.4.2 Coins 93
5.5.4.3 Glass 95
5.5.4.4 Metalwork 96
5.5.4.5 Concluding Remarks on Material Culture 97
5.6 Conclusion 98
6 Newstead Case Study Area 100
6.1 Introduction 100
6.2 The Study Area 100
6.2.1 Past Studies of the Region 101
6.3 Prehistoric Framework 103
6.3.1 Late Bronze Age and Early Iron Age 104
6.3.2 Middle Iron Age 105
6.3.3 Late Pre-Roman Iron Age and Roman Iron Age 106
6.3.4 Eildon Hill North Hillfort 108
6.3.5 Lilliesleaf Enclosure 108
6.3.6 Settlement Patterns in the Newstead Region 110
6.3.7 Rivers and Settlement in the Newstead Study Area 112
6.4 Roman Occupation 114
6.4.1 Roman Infrastructure and Settlement Patterns 114
6.4.2 Roman Finds Distributions 116
6.4.3 Isotropic Cost Surface: Measuring Imperialism 120
6.5 Signal Towers? 121
6.6 Lowland Brochs 124
6.6.1 The Finds From Torwoodlee and Bow 127
6.6.2 Torwoodlee: New Perspectives 131
6.7 Conclusion 134

7 Inveresk Case Study Area 136
7.1 Introduction 136
7.2 The Inveresk Study: History of Study 136
7.3 Roman Forts in the Region 139
7.3.1 Elginhaugh 139
7.3.2 Cramond 139
7.3.3 Inveresk 142
7.4 Excavated Iron Age Settlement in the Region 144
7.4.1 St. Germains Enclosure 144
7.4.2 Fishers Road, Port Seton Enclosures 145
7.4.3 Castle Rock, Edinburgh Castle 148
7.4.4 Traprain Law Hillfort 149
7.4.5 How then should Traprain Law be viewed in the Roman Iron Age? ... 153
7.5 The Spatial Analysis of the Inveresk Region 155
7.5.1 Enclosure Patterns 155
7.5.2 Roman Coin Evidence 157
7.5.3 Roman Finds Distribution 158
7.6 Discussion 159
7.6.1 The Iron Age 159
7.7 The Roman Advance 162
7.8 The Antonine Period 163
7.9 The Post-Antonine Period 167
7.10 Souterrains 168
7.11 The Severan Period 171
7.12 Conclusion 171
8 Dumfries Case Study Area 175
8.1 Introduction 175
8.2 The Dumfries Study Area 176
8.2.1 Past Surveys 176
8.3 Iron Age and Roman Period Settlement in Dumfries 179
8.3.1 Late Bronze Age and Early Iron Age Settlement 179
8.3.2 Crannogs 180
8.3.3 Middle Iron Age 181
8.3.4 The Late Iron Age 182
8.3.5 The Roman Iron Age 183
8.3.6 Castle O'er and Over Rig Enclosures 186
8.3.7 Woodend Farm Enclosure 188
8.3.8 Settlement Distribution 191
8.3.9 Discussion of Excavated Iron Age Settlement Evidence 192
8.4 Roman Chronological Framework 193
8.4.1 Early Roman Occupation 193
8.4.2 The Second Occupation 194
8.4.3 The Post-Antonine Period 194
8.4.4 *Blatobulguium:* What's in a Name? 194
8.5 Roman-Native Material Culture 195
8.6 Roman Infrastructure in the Region 197
8.6.1 Roman Forts and Camps and their Association with Local Settlement 197
8.7 The "so-called" Brigantian Revolt 199
8.8 Occupation of Roman Sites by Locals 199
8.9 Burnswark Hillfort: Roman Manouvers, a Siege or Something Else? 200
8.10 Conclusion 201
9 Conclusion 204

9.1 Introduction 204
9.2 Discussion of Case Studies 205
9.2.1 Introduction 205
9.2.2 Newstead Study Area 205
9.2.3 Inveresk Study Area 208
9.2.4 Dumfries Study Area 209
9.2.5 Similarities and Differences Between the Areas 211
9.3 Frontiers 215
9.4 The Application of GIS 217
9.5 Conclusion 217
9.5.1 Reflection and Prospect 218
Volume 2
Table of Contents 223
List of Figures 227
List of Tables 231
List of Equations 233
Appendix I Total number and counts of events by type and study area 343
Appendix II The relationship between enclosure data and Roman infrastructure with KS-tests 344
Appendix III The relationship between Roman finds events and Roman infrastructure with KS-tests 349
Appendix IV Anisotropic cost surfaces in the Newstead region 354
Appendix V Spatial analysis of the settlement dispersions and patterns 361
Appendix VI Drift geology and enclosure distribution 395
Appendix VII Roman material culture charts 400
Appendix VIII The ethnic make up of forts within the study areas 404
Appendix IX Gazetteer for the Newstead study area 405
Appendix X Gazetteer for the Inveresk study area 428
Appendix XI Gazetteer for the Dumfries study area 453
References cited 480

List of Figures

Figure 1-1 Parker's model of borderlands 234
Figure 1-2 The Roman Empire in AD 117 235
Figure 1-3 Map of the Roman frontiers of northern Britain 236
Figure 1-4 Map of case regions 237
Figure 3-1 Different ontologies and how critical geography and GIS relate 239
Figure 3-2 The relationship between visibility of the Malvern Hills and sites consuming Malvern B1 pottery 240
Figure 4-1 Hawkes' Iron Age 1,2,3 chronology scheme 242
Figure 4-2 Dating evidence for rectilinear enclosures 243
Figure 4-3 Site type dating for southern Scotland 244
Figure 4-4 Hypothetical model of landscape development 245
Figure 4-5 Settlement and the distribution of cord rig and linear earthworks 246
Figure 5-1 Correlation between flight paths and cropmarks in Scotland 247
Figure 5-2 Gregory's analysis soil and settlement in south west Scotland 248
Figure 5-3 Idealised Roman and native settlement organisation 249
Figure 5-4 Fort Ross (California) and the spatial layout of different ethnic groups 250
Figure 5-5 Epigraphic evidence of origin from the northern frontiers 251
Figure 5-6 Glass bangle distribution in Yorkshire 252
Figure 5-7 Glass bangle distribution in Britain 253
Figure 5-8 Distribution of metalwork by styles in Britain 254
Figure 6-1 Newstead study area in regional setting 255
Figure 6-2 The Newstead study area with topography and modern towns 256
Figure 6-3 Roman forts in the Newstead region 257
Figure 6-4 Curle's plan of Newstead 258
Figure 6-5 Modern plan of Newstead 259
Figure 6-6 Key sites discussed in text 260
Figure 6-7 Hillforts in Scotland 261
Figure 6-8 Plan of Eildon Hill North 262
Figure 6-9 Distribution of all enclosures in the Newstead region 263
Figure 6-10 Distribution of circular enclosures in the Newstead region 264
Figure 6-11 Distribution of rectilinear enclosures in the Newstead region 265
Figure 6-12 Density of circular enclosures compared with rectilinear enclosures in the Newstead region 266
Figure 6-13 Enclosure morphology in the Newstead region 267
Figure 6-14 Distribution of settlement in relation to rivers 268
Figure 6-15 Wise's map of settlement in the Tweed Valley 269
Figure 6-16 Distribution of large ironwork deposits in Britain 271
Figure 6-17 Distribution of circular enclosures in relation to Roman infrastructure 272
Figure 6-18 Graph of the difference between the actual distribution of circular enclosures and expected distribution in relation to their distance from Roman roads 273
Figure 6-19 Distribution of rectilinear enclosures in relation to Roman infrastructure 274
Figure 6-20 Graph of the difference between the actual distribution of rectilinear enclosures and expected distribution in relation to their distance from Roman roads 275
Figure 6-21 Roman finds and infrastructure in the Newstead region 276
Figure 6-22 Graph of the difference between the actual distribution of Roman finds, coins and expected distribution in relation to their distance from Roman roads 277
Figure 6-23 Roman coins and infrastructure in the Newstead region 278

Figure 6-24 Non-cumulative graph of the difference between the actual distribution of Roman finds, coins and the expected distribution in relation to their distance from Roman roads 279
Figure 6-25 Distribution of Roman coins in relation to their date..... 280
Figure 6-26 Buffers around Flavian forts in southern Scotland indicating their possible spheres of influence 281
Figure 6-27 Finds and settlement in relation to the time cost surface 282
Figure 6-28 Location of signal towers in the Newstead region 283
Figure 6-29 Plan of Rubers Law..... 284
Figure 6-30 Plan of Cappuck 285
Figure 6-31 Plan of the signal tower at Eildon Hill North..... 286
Figure 6-32 Distribution of Broch settlement in lowland Scotland..... 287
Figure 6-33 Location of Torwoodlee and Bow Castle 288
Figure 6-34 Percentage of settlement types excavationed in the Newstead study area 289
Figure 6-35 Plan of Bow Castle..... 290
Figure 6-36 Plan of Torwoodlee 291
Figure 6-37 Time cost surface for Newstead fort in relation to Gala Water and both broch settlements 292
Figure 7-1 The Inveresk study area in regional setting 293
Figure 7-2 The Inveresk study area with topography and modern towns..... 294
Figure 7-3 Roman Infrastructure in the Inveresk region 295
Figure 7-4 Enclosures in relation to urban development in the Inveresk region..... 296
Figure 7-5 The impact of developer funded archaeology in Scotland..... 297
Figure 7-6 Plan of Elginhaugh fort 298
Figure 7-7 Plan of Cramond fort..... 299
Figure 7-8 Plan of Inveresk fort..... 300
Figure 7-9 Iron Age sites discussed in text..... 301
Figure 7-10 Plan of St. Germains 302
Figure 7-11 Plan of Fishers Road, Port Seton 303
Figure 7-12 Plan of Castle Rock, Edinburgh 304
Figure 7-13 Plan of Traprain Law 305
Figure 7-14 Aerial view of Traprain Law from the north east 306
Figure 7-15 Enclosure distribution in relation to Roman infrastructure in the Inveresk region 307
Figure 7-16 Circular enclosures in the Inveresk Study Area..... 308
Figure 7-17 Rectilinear enclosures in the Inveresk Study Area 309
Figure 7-18 Graph of the difference between the actual distribution of circular enclosures and expected distribution in relation to their distance from Roman roads . 310
Figure 7-19 Graph of the difference between the actual distribution of rectilinear enclosures and expected distribution in relation to their distance from Roman roads . 311
Figure 7-20 Distribution of Roman coins in the Inveresk Study Area 312
Figure 7-21 Distribution of Roman coins in relation to settlement 313
Figure 7-22 Graph of the difference between the actual distribution of Roman finds, coins and expected distribution in relation to their distance from Roman roads..... 314
Figure 7-23 Distribution of Roman coins in relation to modern urban areas 315
Figure 7-24 Distribution of Roman finds in the Inveresk Study Area..... 316
Figure 7-25 Examples of settlement morphology in the Inveresk region in relation to sites mentioned in the text 317
Figure 7-26 Distribution of souterrains in the Inveresk region 318
Figure 7-27 Distribution of souterrains in southern Scotland..... 319
Figure 7-28 Souterrain distribution in relation to Severan infrastructure..... 320
Figure 8-1 The Dumfries study area in regional setting 321

Figure 8-2 The Dumfries study area with topography and modern towns 322
Figure 8-3 Enclosures and cord rig in relation to modern forestry 323
Figure 8-4 Examples of rectilinear enclosures in Dumfriesshire 324
Figure 8-5 Plan of Castle O'er and Over Rig 325
Figure 8-6 Plan of Woodend Farm 326
Figure 8-7 Circular enclosures in the Dumfries Study Area 327
Figure 8-8 Rectilinear enclosures in the Dumfries Study Area 328
Figure 8-9 Plan of the Carronbridge enclosures 329
Figure 8-10 Distribution of Roman coins in the Dumfries study area 330
Figure 8-11 Distribution of Roman finds in the Dumfries study area 331
Figure 8-12 Graph of the difference between the actual distribution of Roman finds, coins and expected distribution in relation to their distance from Roman roads 332
Figure 8-13 Distribution of circular enclosures and Roman infrastructure 333
Figure 8-14 Graph of the difference between the actual distribution of circular enclosures and expected distribution in relation to their distance from Roman roads . 334
Figure 8-15 Distribution of rectilinear enclosures and Roman infrastructure 335
Figure 8-16 Graph of the difference between the actual distribution of rectilinear enclosures and expected distribution in relation to their distance from Roman roads . 336
Figure 8-17 Distribution of rectilinear enclosures and Roman camps in the Dumfries area 337
Figure 8-18 The visibility of Burnswark Hill in the surrounding area as calculated with ArcGIS 338
Figure 9-1 The nature of the frontier in the Newstead region based on Parker 2006 ... 339
Figure 9-2 The nature of the frontier in the Inveresk region based on Parker 2006 340
Figure 9-3 The nature of the frontier in the Dumfries region based on Parker 2006 ... 341
Figure 9-4 The nature of the overall frontier of northern Britain based on Parker 2006 342

Appendix Figure 1 Enclosures measured against distance from Roman infrastructure 343
Appendix Figure 2 Roman finds measured against distance from Roman infrastructure 348
Appendix Figure 3 Tobler's Hiking function 352
Appendix Figure 4 Anisotropic cost surface from Newstead 354
Appendix Figure 5 Anisotropic cost surface which takes into account the rivers 355
Appendix Figure 6 Finds and settlement in relation to the time cost surface 356
Appendix Figure 7 Graph of cost distance analysis 357
Appendix Figure 8 Quadrat grid and the total number of enclosures for the Newstead study area 362
Appendix Figure 9 Graph of the total number of enclosures by quadrat for the Newstead area 363
Appendix Figure 10 Quadrat grid and the number of circular enclosures for the Newstead study area 364
Appendix Figure 11 Graph of the number of circular enclosures by quadrat for the Newstead area 365
Appendix Figure 12 Quadrat grid and the number of rectilinear enclosures for the Newstead study area 366
Appendix Figure 13 Graph of the number of rectilinear enclosures by quadrat for the Newstead area 367
Appendix Figure 14 Quadrat grid and the total number of enclosures for the Inveresk study area 368
Appendix Figure 15 Graph of the total number of enclosures by quadrat for the Inveresk area 369

Appendix Figure 16 Quadrat grid and the number of circular enclosures for the Inveresk study area 370
Appendix Figure 17 Graph of the number of circular enclosures by quadrat for the Inveresk area 371
Appendix Figure 18 Quadrat grid and the number of rectilinear enclosures for the Inveresk study area 372
Appendix Figure 19 Graph of the number of rectilinear enclosures by quadrat for the Inveresk area 373
Appendix Figure 20 Quadrat grid and the total number of enclosures for the Dumfries study area 374
Appendix Figure 21 Graph of the total number of enclosures by quadrat for the Dumfries area 375
Appendix Figure 22 Quadrat grid and the number of circular enclosures for the Dumfries study area 376
Appendix Figure 23 Graph of the number of circular enclosures by quadrat for the Dumfries area 377
Appendix Figure 24 Quadrat grid and the number of rectilinear enclosures for the Dumfries study area 378
Appendix Figure 25 Graph of the number of rectilinear enclosures by quadrat for the Dumfries area 379
Appendix Figure 26 The R-scale in near-neighbour analysis, with exemplary patterns 381
Appendix Figure 27 Kernel Density Estimate and example 383
Appendix Figure 28 Kernel smoothing for the total number of enclosures in the Newstead area 384
Appendix Figure 29 Kernel smoothing for the number of circular enclosures in the Newstead area 385
Appendix Figure 30 Kernel smoothing for the number of rectilinear enclosures in the Newstead area 386
Appendix Figure 31 Kernel smoothing for the total number of enclosures in the Inveresk area 387
Appendix Figure 32 Kernel smoothing for the number of circular enclosures in the Inveresk area 388
Appendix Figure 33 Kernel smoothing for the number of rectilinear enclosures in the Inveresk area 389
Appendix Figure 34 Kernel smoothing for the total number of enclosures in the Dumfries area 390
Appendix Figure 35 Kernel smoothing for the number of circular enclosures in the Dumfries area 391
Appendix Figure 36 Kernel smoothing for the number of rectilinear enclosures in the Dumfries area 392
Appendix Figure 37 Newstead settlement and drift geology 394
Appendix Figure 38 Inveresk settlement and drift geology 395
Appendix Figure 39 Dumfries settlement and drift geology 396
Appendix Figure 40 Roman material by quantity in the Newstead area 399
Appendix Figure 41 Roman material by quantity in the Inveresk area 400
Appendix Figure 42 Roman material by quantity in the Dumfries area 401

List of Tables

Table 2-1 Perceptions of Roman and native in the northern frontiers 238
Table 4-1 Types of chronologies 241
Table 6-1 Distance of settlement from rivers with KS test to 0.05 significance 270

Appendix Table 1 343
Appendix Table 2 One-sample Kolmogorov-Smirnov test: the test compares types of enclosures in the Newstead area and their distance from Roman infrastructure (shaded area significant) 346
Appendix Table 3 One-sample Kolmogorov-Smirnov test: the test compares types of enclosures in the Inveresk area and their distance from Roman infrastructure (shaded area significant) 347
Appendix Table 4 One-sample Kolmogorov-Smirnov test: the test compares types of enclosures in the Dumfries area and their distance from Roman infrastructure (shaded area significant) 348
Appendix Table 5 One-sample Kolmogorov-Smirnov test: the test compares Roman finds in the Newstead area and their distance from Roman infrastructure (shaded area significant) 351
Appendix Table 6 One-sample Kolmogorov-Smirnov test: the test compares Roman finds in the Inveresk area and their distance from Roman infrastructure (shaded area significant) 352
Appendix Table 7 One-sample Kolmogorov-Smirnov test: the test compares Roman finds in the Dumfries area and their distance from Roman infrastructure (shaded area significant) 353
Appendix Table 8 Enclosure distributions compared to the two Time cost surfaces ... 360
Appendix Table 9 Degrees of freedom of the 6th degree 363
Appendix Table 10 VMR of the total number of enclosures by quadrat for the Newstead area 365
Appendix Table 11 Poisson distribution and Chi-square test of the quadrat analysis of the total number of enclosures for the Newstead study area (reject null hypothesis at the 0.001 level) 365
Appendix Table 12 VMR of the number of circular enclosures by quadrat for the Newstead area 367
Appendix Table 13 Poisson distribution and Chi-square test of the quadrat analysis of the number of circular enclosures for the Newstead study area (does not reject null hypothesis) 367
Appendix Table 14 VMR of the number of rectilinear enclosures by quadrat for the Newstead area 369
Appendix Table 15 Poisson distribution and Chi-square test of the quadrat analysis of the number of rectilinear enclosures for the Newstead study area (reject null hypothesis at the 0.001 level) 369
Appendix Table 16 VMR of the total number of enclosures by quadrat for the Inveresk area 371
Appendix Table 17 Poisson distribution and Chi-square test of the quadrat analysis of the total number of enclosures for the Inveresk study area (reject null hypothesis at the 0.001 level) 371
Appendix Table 18 VMR of the number of circular enclosures by quadrat for the Newstead area 373

Appendix Table 19 Poisson distribution and Chi-square test of the quadrat analysis of the number of circular enclosures for the Inveresk study area (reject null hypothesis at the 0.005 level)..... 373
Appendix Table 20 VMR of the number of rectilinear enclosures by quadrat for the Inveresk area..... 375
Appendix Table 21 Poisson distribution and Chi-square test of the quadrat analysis of the number of rectilinear enclosures for the Inveresk study area (reject null hypothesis at the 0.1 level)..... 375
Appendix Table 22 VMR of the total number of enclosures by quadrat for the Dumfries area..... 377
Appendix Table 23 Poisson distribution and Chi-square test of the quadrat analysis of the total number of enclosures for the Dumfries study area (reject null hypothesis at the 0.001 level)..... 377
Appendix Table 24 VMR of the number of circular enclosures by quadrat for the Dumfries area..... 379
Appendix Table 25 Poisson distribution and Chi-square test of the quadrat analysis of the number of circular enclosures for the Dumfries study area (reject null hypothesis at the 0.001 level)..... 379
Appendix Table 26 VMR of the number of rectilinear enclosures by quadrat for the Dumfries area..... 381
Appendix Table 27 Poisson distribution and Chi-square test of the quadrat analysis of the number of rectilinear enclosures for the Dumfries study area (reject null hypothesis at the 0.02 level)..... 381
Appendix Table 28 Nearest neighbour analysis for each of the study areas by site Type to the 3rd order..... 383
Appendix Table 29 Known Ethnic origin of units in the study areas..... 405

List of Equations

Equation 1 Formula to determine the critical value to the level of 0.05 significance .. 344
Equation 2 To convert Tobler's Function into a vertical impedance factor 355
Equation 3 Ideal quadrat size 362
Equation 4 Variance 362
Equation 5 Variance to mean ratio 363
Equation 6 Poisson probability distribution 363
Equation 7 Pearson's Chi-Square Test 363
Equation 8 Formula for the expected average distance 382
Equation 9 Formula to determine the nearest neighbour index 382

Declaration and Copyright

Declaration

No portion of the material offered has previously been submitted for a degree in this or any other university in the form presented here. However, some of the material from section 8.9 "Burnswark Hillfort: Roman Manouvers, a Siege or Something Else?" is based upon work conducted for an MA in Roman archaeology (University of Durham, 2002). This material occurs over pages 200-201, although it has been significantly revised, condensed and augmented.

Statement of Copyright

The copyright of this thesis rests with the author. No quotation from it should be published without prior written consent and information derived from it should be acknowledged.

Preface

The subject, however various and important, has already been so frequently, so ably, and so successfully discussed, that it is now grown familiar to the reader, and difficult to the writer.

-Edward Gibbon, *The History of the Decline and Fall of the Roman Empire* Chapter 9

There is a paradox at the heart of frontier studies in northern Britain. While so much has been written concerning interaction, very little is actually understood. It is a field of knowledge which is both known yet unknown and presents difficulty for any attempt at analysis, as the extensive level of discussion would at first seem to mitigate against further study. Yet once the assumptions have been removed from the discussion of interaction on the northern frontiers, very little remains, necessitating a critical approach and adding to the difficulty of addressing these issues. What follows is my humble attempt to add a new dimension to this much studied but little understood subject.

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1 An Holistic Frontier

1.1 Introduction

This thesis examines the northern frontiers of Roman Britain through a geospatial approach, taking into account the pluralistic nature of the region. This approach is both multiscalar and diachronic in how it presents and analyses the material. Proposing a more holistic approach in examining the archaeology of the region, this study addresses the tendency within British frontier studies to focus on the Roman remains to the detriment of the local indigenous material. In order to address these considerations further, it is necessary to examine and discuss the issue of archaeological time in relation to the northern frontiers. Through the application of new heuristic approaches, it is possible to explore regionality during the Roman period in a more specific and refined manner. The use of Geospatial Information Systems (GIS) contributes to this analysis, allowing spatial patterns to emerge in the settlement evidence and finds distributions to be quantified and tested statistically. The results highlight the potential of existing archaeological information and utilises new analytical techniques to illuminate understanding of the northern frontiers. The following sections will introduce the theoretical concepts employed within this study, as well as define the impact of the Roman occupation and its effects on indigenous settlement.

The historic discourse of Roman frontier studies has largely dictated our understanding of the frontiers region of Roman Britain. Previous studies have created a monolithic view of the Roman 'army' and present the frontiers as a simplistic system of military deployment (James 2002, pp. 38-42). The focus of study in the frontiers has traditionally been limited to discussions of Roman soldiers and forts. This homogenised treatment of the northern frontiers is also dualistic as the local non-Roman inhabitants of the area have been seen in traditionally generalised terms, typified by their labelling as 'native' (Barrett 1997). In this regard, northern Britain has largely been excluded from the general models and debates which have characterised recent studies of Roman Britain. The region has not been subjected to the application of acculturation models, yet given the general disregard with which these models are now held in studies of Roman Britain, this may actually prove beneficial as it presents a blank canvas for addressing issues of identity in the Roman period. By taking into account the pluralistic

nature of the northern frontiers it is also possible to address issues of ethnicity and measure the impact of the frontiers on local social systems. However, before this can occur it is important to stress the fact that Roman studies in Britain, and specifically those on the frontiers, have occurred within a long historical framework. This framework is influenced by colonial and imperialist ideals which have an impact on the existing understanding of Romanisation and Roman frontiers in general (see Hingley 2000, pp. 37-48,56-9,130-55; James 2002, pp. 9,27,34). Therefore, it is necessary to undertake future frontiers studies within a post-colonial perspective, taking into account and addressing past bias. To adequately deal with these issues, it is necessary to define the terms and ideas employed, as this will explain the theoretical framework behind this study. These can be broadly classified as: post-colonial studies, ethnicity, frontiers, and pluralistic studies.

1.2 Post-colonial Studies and Roman Archaeology

Post-colonial studies have played a significant role in addressing many of the problems inherent in Romanisation theory and the way identity is studied in Roman Archaeology in general (Fincham 2002; Hingley 2000, 2001; Mattingly 1997, 2004; Webster 2001; Webster & Cooper 1996). These can be divided into those accounts which highlight the flaws in the model of Romanisation from a post-colonial perspective (Hingley 2000, 2001; Mattingly 1997; Webster & Cooper 1996) and studies that utilise post-colonial theory to propose new models for studying identity (Fincham 2002; Mattingly 1997, 2004, 2006; Webster 2001). Webster's (2001) favoured model is one of Creolisation, which utilises theoretical developments in historical colonial archaeology to forward a model of syncretism, rather than the one-sided process of Romanisation. Mattingly (1997) and Fincham (2002) draw their critique of Romanisation from the work of Said (1978) and forward a model of cultural understanding based on his theories, primarily those of different or discrepant experiences. This idea of discrepant experience is combined with Scott's (1990) concept of the 'hidden transcripts' in relation to how dominated peoples interact with hegemony. This has led Mattingly to argue for a model of discrepant identities to explain differences in material culture in the 'Roman' Empire, highlighting that "different groups in Britain lived divergent lives, and many of them lived in rather different worlds from that conventionally emphasized by historians and archaeologists" (Mattingly 2004, p. 24).[1] It is within this framework that the northern

[1] A critique of this model is that it gives no mechanism for change in the material culture other than random choices, so it cannot be seen as a process in the same way that Romanisation or Creolisation are.

frontiers of Roman Britain can best be understood. Rather than focusing on specific generalised trends, what is needed is an account which incorporates both regional variation and temporal considerations in assessing the overall impact of the occupation and colonisation of the region.

1.3 Ethnicity

If post-colonial studies are concerned with addressing the simplistic dichotomy between the imperial power and the 'other', then it is necessary to assess how this can be achieved within Roman frontier studies. Ethnicity and social identity present a direct way to break down these one-dimensional views of both Romans and 'natives'. Ethnicity as a term is ontologically problematic in archaeology (Fenton 2003; Jones 1997; Stone 2003). Fenton questions whether ethnicity is a valid concept, seeing it rather as a by-product of modernity which cannot be separated from such issues as race, nationality and class (Fenton 2003, p. 2). Regardless of the validity of the discussion of ethnicity in the past, it has become an integral aspect of archaeological terminology and discussion. In many ways it has become short-hand for considering group identity. When discussing ethnicity, it is best seen in terms of ethnic identity which Jones defines as: "that aspect of a person's self-conceptualization which results from identification with a broader group in opposition to others on the basis of perceived cultural differentiation and/or common descent" (Jones 1997, p. viii). This makes it necessary to view ethnicity within the larger framework of identity (Mattingly 2004, p. 9).

What is to be termed ethnic identity has profound importance in relation to discussions of identity as a whole in the northern frontiers, given that previous debate has often focused on a perceived binary distinction between 'Roman' and 'native'. If Roman archaeologists are to address the phenomenon of ethnicity on the frontiers, there needs to be a specific understanding of precisely what is being studied. The concept of ethnicity that is utilised within this thesis is based upon the writings of Jones (1997) and Lightfoot (1998), which can be seen as the aspect of identity that deals with larger group

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This is only problematic if we accept that the diachronic changes which have been highlighted in the material record (an increase in Roman material and Roman social organisation) are representative of a historic process rather than something which has been created by historians and archaeologists through a process of generalisation, and are nothing more than a by-product of hindsight and a desire to see linear change and progression. These ideas have been explored by Hingley (2000, pp. 143-52), who argues that much of the archaeological excavation conducted in the first half of the twentieth century focused on sites which reinforced and supported a notion of Romanisation (Hingley 2000, pp. 149-52). It is possible that the bias of such evidence helped create the view that the south of Britain was actually more 'Roman' in its material uptake than was actually the case (Hingley 1989).

association. This collective identity is maintained through the application of Bourdieu's *habitus,* which can be seen as the underlying set of group rules or structuring values embraced by individuals (Bourdieu 1977; Jones 1997).

The concept of ethnicity is not entirely this straightforward, as has been highlighted in Stone's (2003) critique of Jones, where she argues that "*habitus* assumes culture exists in a homeostatic state [. . .] [where] ways of producing material culture and viewing the world will not change unless directly challenged by exposure to a totally different *habitus*" (Stone 2003, p. 34). It is clear that while utilising the concept of *habitus* to understand ethnic identity, there is also a need to realise that ethnic identity is something which is constantly renegotiated on the group level as well as the individual level and that it is fluid and diachronic (Stone 2003, p. 62). This contributes to the complexity of addressing this issue in the past; especially when other aspects of identity are considered. There is no certainty that the material indicators being discussed are related to ethnic identity rather than social status, gender, or age. This issue becomes less problematic if we consider these concepts under the blanket of a cultural identity in which these elements would all interrelate.[2] The Roman frontier can be seen as multiple ethnic groups both within the Roman military apparatus (including inhabitants of the *vici*) and the local Roman Iron Age communities. This requires a holistic approach to address these issues, which breaks down these strict dichotomies and leads to a more inclusive study of the Roman frontiers.

1.4 Frontiers

The life blood of two worlds merging to form a third country...a border culture. Borders are set up to define the places that are safe and unsafe, to distinguish us from them.

(Gloria Anzaldúa 1987, p. 2)

While academic study of the northern frontiers of Roman Britain has maintained a healthy relationship with international Roman frontiers studies through the *Limes Kongress* (for further discussion, see James 2002, 2005), generally there has been little interaction with wider debate on 'frontiers' in archaeology. While the rationale for this situation is discussed in Chapter Two, the effect has been to minimise intellectual exchange. Much of the general discussions in archaeology on the nature of frontiers

[2] Though potentially this blanket view of identity, could be critisised, as it may be argued that this marginalises and undermines these key concepts. This makes them into little more than aspects of identity, which would have ramifications for the discussion of these concepts in the present. I specifically see this as an issue in regards to gender and race which have been at the forefront of addressing political issues of social inequality.

have caused a significant reassessment of how these areas are approached and defined in relation to archaeological theory (see Dodd 2005; Lightfoot & Martinez 1995; Parker 2006). Within frontier studies there has been a growing awareness of the potential of these areas to illuminate key issues in the archaeological debate (Farriss 1984; Ferguson & Whitehead 1992; Lightfoot 1995, 2005; Lightfoot & Martinez 1995; Lightfoot *et al.* 1998; Lightfoot *et al.* 1991, 1993, 1997; Rogers 1990, 2005; Rogers & Wilson 1993; Smith 2003; Smith & Montiel 2001; Stein 2005; Wells 1980a, 1980b, 1992, 1993, 1998, 1999b, 2005). There has also been growing criticism of the traditional view of frontiers as part of a core-periphery model (Lightfoot & Martinez 1995; Stein 2002). Specifically problematic are "insular models of cultural change that treat frontiers as passive recipients of core innovations, the reliance on macro scales of analysis employed in frontier research and the expectations of sharp frontier boundaries visible in material culture" (Lightfoot & Martinez 1995, p. 471). Lightfoot and Martinez (1995, p. 471) argue that frontier studies are still primarily informed by a colonialist perspective of core-periphery developments. This dependence on a colonial perspective is entirely applicable to studies on the northern frontiers of Roman Britain. There is a clear need to address these frontiers in a post-colonial manner, that accounts for the reality of a complex heterogeneous social setting, whilst simultaneously addressing the physical and social impact of Imperialism.

The way in which the frontiers of Roman Britain have been viewed, primarily in a military manner, isolates frontier studies to very specific social locations. This is in contrast to the often broader sociological application of a frontier as a zone of interaction between distinct peoples, made up of "various overlapping political, economic and cultural boundaries" (Parker 2006, pp. 79-80). In this broadest sense, the term frontier could be applied to the majority (and perhaps all) of Roman Britain at certain periods. This can be seen in simplistic terms through the progression of different frontier zones in Roman Britain from the Fosse Way (Webster 1993, p. 159) through to the Gask Ridge (Breeze 1993b; Woolliscroft 2002), the Stanegate 'frontier' (Hodgson 2000), Hadrian's Wall, the Antonine Wall and finally the Saxon Shore forts (Maxfield 1989). Yet if the concept of a zone of interaction between distinct peoples is seen as the primary definition of a frontier area, all of Britain can be considered to be a frontier and a zone of interaction on the edge of the Roman Empire. In this regard the definition of frontier becomes a question of scale. Parker (2002; 2006) forwards the argument for a clarification of terms between borders and frontiers, drawing on the nature of these

boundaries and how restrictive or porous they are (included on Figure 1-1). This clarification of terminology and theoretical discussion of how frontiers operate present interesting insights into the different phases of 'frontier' in northern Britain, especially if one considers the shift from a fluid frontier of forts to the more fixed and delineated borders of both of the Walls. These shifts would clearly have had large impact, not only on the movement of goods, but also on the definition of local identity.

One of the most significant realisations within frontier studies has been the impact that frontiers have on identity. Not only do frontiers cause existing social groups to redefine their world view but they also act as focal points for the development of new cultural identities which often represent syncretised or creolised cultural groups (Hunter 2001, 2007; Wells 1998, 1999a, 2001, 2005). This fluid method of social negotiation should not be overlooked, nor should the possibility that the presence of these groups could cause a redefinition of identity. This is based upon a conservative and traditionalist reassessment of what local indigenous groups would have viewed as their values and place in the world. In order to fully understand social interaction in northern Britain during the Roman period, it is important to conceptualise the region with a broader understanding of frontiers. Such an approach takes into account the developments from frontiers studies within general archaeology and anthropology, rather than solely relying on historically derived concepts of the Roman frontier.

1.5 Plurality and Roman Frontiers

In order to address issues of identity in the northern frontiers, a re-evaluation of terminology and assumptions within Roman archaeology is necessary. Understanding pluralistic social settings requires a theoretical exploration of key archaeological concepts such as ethnicity, 'Roman', 'native', Romanisation, Imperialism, and frontiers. This study will draw upon recent developments in Roman archaeology which have utilised and argued for 'discrepant' experiences and identities, which can be traced back to the development of post-colonial theory within Roman archaeology (see Fincham 2002; Mattingly 1997, 2004).

The last twenty years have seen significant reassessment of the Iron Age archaeology of southern Scotland and northern England (Armit 1997a, 1997b, 1999b; Ferrell 1997; Harding 2001, 2004, 2006; Hill 1982b; Hingley 1992b; Wise 2000). What has emerged is a greater understanding of the complexities of Iron Age culture in the region before

and during Roman occupation. There has also been an increased study of the role and significance of 'Roman' material culture within non-Roman contexts (Hunter 2001, 2007). When this is combined with the recent publication of significant Roman sites in the area and the advances in theoretical understanding of the Roman period, it creates a need for wholesale reassessment of the nature of societal interaction in the northern frontiers. These re-evaluations need to occur in the context of a post-colonial perspective which will allow many of the past biases to be addressed and as such allow for a fuller understanding of the region, which takes into account the multiple and discrepant experiences.

There is increasing tendency to view the northern Roman frontiers as pluralistic in nature (Collins 2006; Cool 2004a; Gardner 1999, 2001, 2002, 2004, 2007a, 2007b, 2007c; Hingley 2004; James 2001; Okun 1991; Swan 1992, 1999, 2002; Wells 1999a). Principally, studies have dealt with pluralism as an ethnic construct. An 'archaeology of pluralism' is more than just an understanding that these areas are culturally pluralistic but also adopts a theoretical and contextual approach to addressing these themes in archaeology (Lightfoot *et al.* 1998). There is a realisation that society in the northern frontiers is far more complex than a mere 'Roman'-'native' dichotomy suggests and consists of multiple identity groups. These group identities would have had varying degrees of flexibility and overlap, evolving over space and time. Yet this differs from the development of a theoretical and methodological way of addressing these issues. While much of this has been central to the debates surrounding Romanisation (Webster 1999, 2001; Woolf 1997), it has not had significant impact on studies of the northern frontier. Romanisation, as a model, has not often been applied to discussions of the military zone of the north. Millett (1990) went so far as to exclude the region from his synthetic discussion on the grounds that 'Romanisation' would have been limited by the continued detrimental presence of the Roman military.[3] The exclusion of discussion on Romanisation in the region poses some fundamental problems as there is no real justification for not including it. This is not an advocation of the adoption of this theory, given recent debate has already highlighted many problems with this model (Mattingly 2004). So while the Romanisation model is simplistic in how it addresses identity, the

[3] Interestingly, there are problems with this model as it does not explain why we find areas in the 'civil zone' that are similar to the 'frontier zone' in their lack of uptake of Roman goods but without a large military presence. In addition, the model focuses primarily on well defined 'Romanised' sites and overlooks the large amount of rural settlement with a similar lack of Roman goods (see for example Hingley 1989, 2004; Hingley & Miles 2002). It is not an entirely fair assumption to state that the northern frontiers are fundamentally different in their uptake of material culture without a holistic assessment of the overall impact and utilisation of this material across the whole of the area (contra Millett 1990).

northern frontiers were not even subject to it, highlighting the lack of theoretical engagement of Roman frontiers with trends in Romano-British studies. This presents an ideal opportunity to address the pluralistic social setting of the Roman frontier of northern Britain in light of this absence. Given the increased discussion in Roman archaeology, especially on Roman Britain, concerning ethnicity and social identity in general, the northern frontiers is in a unique position in terms of its potential and importance to capitalise on these debates. This is evident from the extensive amount of textual and epigraphic evidence from the region that attests to the diversity of communities in the north, which consisted of individuals and groups from throughout the Empire (for an extensive examination of the epigraphic evidence, see Salway (1965)). This diversity is further supported by recent archaeological analysis indicating the relocation of entire communities to the region (Cool 2004a; Swan 1992, 2002). There is far more potential in exploring issues of identity in this pluralist setting than has been appreciated in past discussions.

1.5.1 Approaching Pluralistic Social Settings

> We must recognize [...] that the archaeology of pluralism is very much in its infancy.
>
> (Lightfoot 1995, p. 201)

Pluralism as a theoretical concept addresses the possibility of multiple identities and allows for the formation of a far more complex picture of cultural understanding of the Roman frontiers of northern Britain. There is some difficulty in how these ideas can be addressed in more practical terms. How can pluralism be explored within the material culture of the period? What methodologies will lead to specifically addressing this issue and can such studies be integrated into the existing frameworks of Romano-British frontiers studies? While a few recent studies have shown the benefits that can be achieved from considering identity and ethnicity in relation to studies of material culture, they have done so in a variety of different ways and lack uniformity in overall method and theory.

The prime examples can be seen in the works of Swan (1992; 2002), Clarke (1999) and Cool (2004a), with each highlighting a different aspect of identity in the north and adopting radically different methods of addressing this issue. Swan's research can be described as 'artefact based analysis' and has focused on the presence of specific cultural pottery. African cooking ware and Gaulish beer beakers are used to argue for

the ethnic presence of these groups at certain forts based on the idea that there would have been specific social associations attached to the use of these products, their implication on diets and culturally specific foodways.[4] This contrasts significantly with Clarke's work which focuses on the social and spatial layout of settlements and sites in the landscape. Clarke (1999) looked specifically at the Roman *vicus* at Newstead and how the spatial structure of the houses differed greatly from the roundhouse in the surrounding settlements. Clarke's approach is valuable in addressing the evidence in a manner that is not dependent on distinctions drawn from placing ethnic labels onto material culture and strengthens the argument that identity can be found in how items are used, rather than assigning ethnic grouping to set types of material culture. His argument reinforces the prevailing view of a binary division in culture in the north between 'native' and 'Roman' and fails to explore the possibility of more nuanced identities obscured beneath these broad categories. Cool's (2004a) analysis of the Roman cemetery at Brougham on the other hand has identified the presence of a distinct ethnic unit at the local fort. While the evidence used to support this consists of a variety of sources; textual, epigraphic and material, the core of the argument is formed around what can be seen as 'contextual' analysis of the burial material. While these three studies are fundamentally different both in scale and the methodologies employed for examining identity, they do highlight the variety of approaches available. These studies are also useful in that they reaffirm the pluralistic nature of the Roman frontiers, offering a new context in which to assess identity in the region.

This thesis, while benefiting from this earlier work, addresses issues of identity in the northern frontier in a multi-scalar, diachronic and contextual framework. It is argued that only by addressing these issues in macro analysis, in conjunction with micro analysis of specific contexts, can an overall understanding be gained of Roman impact on both landscape and the worldview of local social groups. Archaeologies of pluralism that focused on daily practices have largely been influenced by Bourdieu's (1977) concept of *habitus*. It has been argued that only by focusing on these small scale cultural actions can a detailed understanding of identity emerge (Lightfoot *et al.* 1998, pp. 201-3). Yet any study of the northern Roman frontiers also requires a larger macro analysis

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[4] While Swan's work on pottery association with different social practices is interesting, the association of specific pottery types with direct ethnic groupings is problematic in that it places strong emphasis on passive subjects, discounting the possibility of change or the spread of ideas and practices. It presents a fixed and inflexible model of human action. These assumptions also place considerable emphasis on the idea that pottery forms have fairly rigid and fixed functions, mapping such pottery types onto eating practices, which need not be the case (see further discussion Cool 2004b; Meadows 1994).

of settlement, not only to understand the social organisation of the local communities in northern Britain, but also to assess the overall impact of the Roman presence and its connection to the broader Roman Empire. Identity, especially structured group identity, can become etched in the very landscape in an hermeneutic process. The landscape, and cultural understanding of it, plays a significant role in creating and reinforcing identity. It seems logical that such cultural understanding will lead to action altering the landscape.[5] By bringing both of these scales into a dialectic it is possible to utilise the available material to its best advantage to propose a reflective way of addressing pluralism and identity.

1.6 The Aims of the Study

The focus of this project is a re-evaluation of both the material evidence and the theoretical positions which have formulated the basis of archaeological understanding in relation to the question of 'Roman-native' interaction in the northern frontiers of Roman Britain. To achieve an holistic, in-depth and multi-scalar understanding of the landscape of interaction during the period, this project relies heavily on GIS. The principle aims of this project are threefold:

- To address past bias in how the material from the region has been viewed and in evaluating existing frameworks employed to study the region. Such biases result from modern cultural perceptions and as a by-product of the application different disciplinary approaches.
- To assess the impact of Roman Imperialism on the local communities and landscape of the region by studying the spatial relationship between Roman finds, infrastructure and local settlement patterns.
- To highlight the need to study the northern frontiers as pluralistic social settings in which neither the Roman presence nor local society are viewed in monolithic terms.

The first of these aims require discussion of why many of the questions put forth in this project have been so infrequently addressed before now, and additionally to highlighting the current understanding and debates within the archaeology of the northern frontiers. The second aim accounts for the bulk of this project and for the majority of further

[5] Much of this is based on a phenomenological understanding of the landscape which is further highlighted in Chapter 3.

discussion. In order to achieve this aim, an understanding of the local social setting and landscape of each of the case studies need to be developed before any assessment of the Roman presence can be made. Both broad landscape analysis and discussion of site specific examples contribute to a detailed and complex picture of social interaction. Many of the methodological and practical problems of dealing with data from this period and region are discussed in addition to the social implications of the results they provide. The final aim is principally a theoretical concern, focusing on the discussion of society and cultural contact in the northern frontiers and intends to examine data from the study areas and Roman British frontier studies within the larger context of current debate in Roman archaeology, archaeology in general and social theory. This thesis intends to make discussions from this field relevant within the larger Roman and general archaeological dialogues, as argued for by James (2002) and more recently Mattingly (2004).

1.7 Outline of the Thesis

The first half of this chapter set out the theoretical framework in which the practicalities of the study will develop. This provides a theoretical overview of pluralism and alternative models to understand Imperialism, without relying on a process of colonial acculturation to explain all change. Additionally, an outline of the other chapters is provided and an overview of the case studies is discussed, highlighting the benefits of using a multi-scalar approach.

Chapter Two addresses why 'Roman-native' interaction remains an underdeveloped field of study, and explores some of the personal and period biases which have shaped past studies. Without addressing these biases any subsequent study is likely to reinforce these existing dichotomies which will contribute to and compound the existing problems inherent in frontiers studies of northern Britain.

Given that GIS software contributes significantly to the overall study, Chapter Three is primarily concerned with the theoretical and methodological implications of utilising GIS in archaeology. While these theoretical concerns are often unavoidable it is at least possible to be aware of the limitations of incorporating this technology in archaeological study.

Chapter Four explores the temporal issues encountered in this study, those related to GIS, and the complexities that arise in the study areas where the definition of

chronologies is often problematic for non-Roman sites. This chapter also addresses broader theoretical issues of what constitutes 'time' in archaeological thought and addresses the temporal 'Roman-native' divide; studies of the Iron Age have been concerned with long-term social processes as opposed to Roman frontier studies, which focus on historical events. This was first highlighted by Andy Fitzpatrick and John Barrett (1989).

Chapter Five reviews the methodological issues and the theoretical implications of studying 'Roman' material culture in the frontier zone. This review deals directly with the methods and tests that were undertaken as well as discussing how the data are categorised, and discusses general issues involved in the study of Roman material culture in the north. The results achieved from these methods are discussed in each of the relevant case studies in detail.

The next three chapters (Chapter 6, Chapter 7, and Chapter 8) present an overview of the three core study areas (see section 1.8). This broad scale regional approach is balanced through in-depth discussion of individual and smaller groups of sites. The study areas were chosen, because they have been substantially excavated presenting a rather more complex picture which is clarifed with the help of GIS (see section 1.8.1).

The final chapter compares the findings of all the regions and offers an overview of cultural contact and Imperial impact on the northern frontiers of Roman Britain in light of these findings. The wider implications of the study for Roman archaeology are outlined, in addition to areas which could prove informative in future study. What is concluded is that there is a need to present and discuss the Roman frontiers multi-vocally, addressing different perspectives in the past and, more importantly, in prompting fresh dialogues in the present.

1.8 Case studies

While a theoretical discussion of the terms utilised in this study are important, to both address the meaning of these terms and to set the parameters of the study, such debate does not address how these ideas can be translated into any form of real meaning with regard to the physical archaeology of the region. In order to assess this it is necessary to define both the area of study and discuss the material which is available for archaeological analysis. By addressing the issue of interaction on the northern frontiers of Roman Britain, it is necessary to go beyond a study based solely on artefacts and to

consider both landscape and settlement patterns. This study is an analysis of the landscape of the northern frontiers during the Roman period and focuses on multiple scales and large databases using GIS. It is the flexibility of this software in allowing multiple regions to be studied in a similar manner, that allowed this multivariate study to be possible.

1.8.1 Study Area

The area discussed in this thesis, the northern frontiers of Roman Britain, include the furthest reaches of the Roman Empire in north-west Europe and cover a large part of what is now southern Scotland (Figure 1-2 and Figure 1-3). In order to address the aims of this thesis, three case studies were chosen to focus the research (Figure 1-4). They represent the main focus in this multi-scalar approach, in order to deal with the issues of regionalism in the study. After much generalisation, there has been recent development in Iron Age archaeology to study specific regions in order to better ascertain variability on a local level (Haselgrove *et al.* 2001, pp. 22-4). While these studies have shown the advantages of this approach, it is impractical to study only one region in depth as this would not allow for a full understanding. Such ultra specific regional studies do not inform wider debates about cultural interaction, the adoption of trends or the spread of techniques, ideas and material culture. The placement of multiple study areas within the larger frontier region allows for specific trends to be revealed, allowing for comparison and contrast between these regions in the broader context of the northern frontiers. The circular shape of the study areas reflects the nature of the databases and the utilisation of GIS, and acts as a catchment area around specified sites. In Scotland, The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) has a complete database fully integrated with GIS, which allows for information to be accessed in multiple ways. The circular study areas reflect a zone or catchment around

[7] There are also a number of further considerations for the exclusion of Traprain Law from direct spatial analysis in this study. Traprain Law has come to dominate the discussion of south east Scotland so intensely that it has overshadowed other evidence from the region (Aitchison 1987). Contextual understanding of the artefacts is difficult due to the quality of early excavations. Though it has been argued that this does not limit the potential of this material (Erdrich *et al.* 2000, p. 443), recent excavation on the summit is allowing a reappraisal of the original data and a greater understanding of the contextual elements of this site to emerge (Armit 2001; Armit *et al.* 2002; Armit *et al.* 2005; Rees & Hunter 2000). In addition to this, a complete understanding of the site requires an in-depth assessment of other sites in the vicinity without which it is hard to speculate on the role or function of the site, especially in regard to determining if the site had a specific place in the settlement hierarchy. Although these recent excavations focus directly on Iron Age and Roman-native interaction (Haselgrove *et al.* 2001, pp. 11-2), the research has not been published and so could not be included in this thesis. Recent projects have the potential to revolutionise this understanding of the role of Traprain Law. It is therefore unwise to speculate excessively about the nature of the site until the full findings of these projects have been fully published.

central sites of interest in the study, such as the Roman forts at Newstead and Inveresk and the Roman camps at Burnswark.

The Study areas are:

A. Newstead and the Tweed valley – Covering a 20km radius around the Roman fort of Newstead. This has been chosen because of the large amount of previous work carried out on 'Roman' and 'native' sites in the area.

B. Inveresk – Which covers a 15km catchment around the Roman fort at Inveresk. Inveresk was chosen specifically because of the significant amount of excavation undertaken in the area, especially on the fort and its immediate surroundings. The study area is smaller than the other core studies for two reasons. Firstly, the size of the study area was limited to avoid bringing a large section of modern Fife on the other side of the Firth of Forth into the discussion. Secondly, it was deemed necessary to exclude the Traprain environs from the study region. While an in-depth discussion of Traprain Law and the area around it would at first seem logical in this study it has been purposefully excluded because the area around Traprain Law lacks any Roman infrastructure and as such it would be difficult to measure the impact of Roman occupation on the areas in terms of spatial analysis.[7]

C. Dumfriesshire – the area consists of a 20 km catchment around the site of Burnswark, covering a substantial part of the area covered by the Royal Commission's survey of the Dumfries region (RCAHMS 1997). The region has also had a number of excavations undertaken in recent years which permit a more in-depth discussion of the settlement development.

Each of these zones cover a significant area and present a large amount of material, enough to not only highlight similarities and differences between them, but also within them. This lends support to the argument that society within the northern frontiers was heterogeneous, made up of fluid and flexible social groups which renegotiated their identity along diachronic and spatial parameters. These zones are also important regarding the main question of 'Roman-native' interaction as they all contain a significant amount of Roman infrastructure and important local sites. They are also large enough to allow an appreciation of what was occurring outside of these immediate

focal points and provide a greater appreciation for the impact of the Roman military on these zones. The three study areas were specifically chosen because they were seen as regions which would be potentially informative in addressing the main questions of this study. While this might prove problematic as it places considerable emphasis on areas of significant Roman presence, possibly adding the bias of favouring Roman sites in the area during the Roman Iron Age, it can be justified under the aims of this study; this being the reassessment of 'Roman-native' interaction. These areas have also formed focal points for survey and excavation in the past and as such contain enough evidence to begin to address these issues. In contrast, much of southern Scotland lacks this level of previous study with which to assess 'Roman-native' interaction to any significant degree.

1.9 Summary

There has been a historical tendency to see both the Roman presence in the north of Britain as monolithic and homogenised and the native responses as equally simplistic in their uniformity, as a mere reaction to external stimulus. The plurality of the northern frontiers needs to be stressed and more fully explored if the Roman period is to be understood in terms which are not monolithic and generalised. The advances which have been made within Iron Age archaeology in Scotland have already contributed to dissecting the generalised and simplistic understanding of 'native' society, showing that it was far from uniform and that changes within the region were more complex than a simple reaction to the Roman military presence. This questioning of the uniformity of 'native' society has not been mirrored by a reassessment on the Roman presence in the area. While this study attempts to address this issue by highlighting it and suggesting ways forward, it focuses for the most part on addressing the impact of the Roman occupation on the local population. This is achieved by bringing together the current views on Roman Iron Age society and applying new techniques and methods to the existing data set in the region. The results demonstrate the complex nature of interaction on the northern frontiers during the Roman period. By reassessing the nature of frontiers and questioning the traditional assumptions about 'Roman-native' interaction a more nuanced understanding of the northern frontiers is beginning to emerge. This study represents a contribution to the beginning of what should be a comprehensive re-conceptualisation of this region during the Roman period, undertaken within the broader context of frontier studies as a whole.

2 Past Approaches to the Northern Frontiers

2.1 Introduction

> The full effects of the wall on the native peoples north and south of it, the full story of the civil settlements under its shadow, still remain to be discovered and recorded. Till these are known the story must be incomplete. (Breeze & Dobson 1976, p. 3)

Breeze and Dobson's definitive work on Hadrian's Wall was first published in 1976 with the above statement included in the preface as a caveat to the study of non-military matters of the wall. It has been included within every successive reprint of the work including the latest edition published in 2000. There is a twenty-four year gap between these publications, and yet such a fundamental issue remained unchanged. In the following chapter, this issue will be addressed. First, through a review of recent studies that have begun to shed light on the effects of the frontiers on the population that inhabited the area. Second, an evaluation of the reasons for the continuation of the above negative view, which has remained relatively unchanged until the present date.

A principal issue is the notion of a linear divide that has been defined between those who study Roman frontiers in northern Britain and general archaeology which has undergone significant changes during the last fifty years (James 2002).[8] The Roman military has remained a primary focus of study, partly because of its rich depth of material and also due to the prelevant view that the Roman period is a unique area for analysis which can be separated from general archaeology (James 2002). This separation represents a more substantial difference than mere 'periodisation'. It has remained distant from the overarching debates occurring in the rest of Roman Britain with regards to Romanisation and acculturation, assuming that the main population of study are immigrants: the soldiers, officials and traders (James 2002). What has developed is not only a study that is one sided, focusing on the Romans in the north, but also does not address the relationship of these people to the overall picture in the province.

[8] This is in relation to the tendency for Roman specialists to primarily focus on the Roman military, and prehistorians to address local 'native' archaeology.

This problem persists on the other side of the scholarly divide, in the study of the local populations or so called 'natives', a term that reflects the misgivings and preconceptions of interpreters.[9] The area studied for this research has increasingly fallen under the auspices of Iron Age archaeologists, creating a notion of continuity between the Late Iron Age and the Romano-British period that leads some to almost ignore the Roman presence in Scotland and propose a Scottish Iron Age that continues through the Roman period (Harding 2004). Undoubtedly, the ambiguous nature of dating many sites has contributed to this approach. This has effectively created two distinct areas of study with minimal overlap, and as such has created a divide which results in a lack of debate between these studies. However, the material to study this exists, and unless this divide is bridged it will not receive the attention it deserves. Breeze and Dobson (1976, p. 3) acknowledge this when they state that 'till these are known the story must be incomplete'. Yet, has the way that the archaeological evidence been approached allowed these questions to remain unanswered or even created the bias?

2.2 Textual Sources on the Northern Frontier

One approach that has created bias has been through the use of textual sources. The study of Classical sources and epigraphy, to determine what they can tell us about the local populations, has a long tradition in frontier studies in northern Britain. While they have contributed to some interesting debates on Roman frontier policy (Bowman 2003; Breeze 1982; Breeze & Dobson 1976; Hanson & Maxwell 1983), they have not brought archaeologists any nearer to understanding the populations of the north as the archaeological evidence has been forced into the narrow confines of literal readings (see Birley 2001). In order to understand society in northern Britain, we must allow the

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[9] The term 'native' has been shown to be a relatively useless term by Barrett (1997) who has argued that we should abandon it. While this is a compelling argument it is problematic as it has become part of the literature of the topic of Roman frontiers and as such is an interesting avenue of study in its own right. A complete abandonment of its usage would not fully address the complexities involved in the study of the Roman north which should be addressed through a critical historiography of the field. Its usage will be limited in this study for two main reasons. The term 'native' carries with it baggage of our own recent colonial/Imperial past, conjuring an image of the British Empire and colonial Africa. Or more importantly to the study area, similarities between the locals during the Roman period and the Highlanders and Jacobites of the 18th century and their efforts to resist English colonialism, emphasising issues of nationalism (see Hingley 2000). Second, and more importantly to this study, it presents a notion of uniformity within the local cultures of northern Britain during the Roman period which did not exist (Woolf 1997). As such it hampers any in-depth understanding of the archaeological situation.

archaeological record to 'speak' and interpret it on its own merits.[10] This is not to argue that the literary evidence is useless, but rather to suggest that it will not add to our understanding until the archaeological evidence is better understood. There should be a hiatus in the consideration of the historical record, rather than the complete exclusion of it. The literary-historical approach has conditioned the way the archaeological material of the frontiers are studied, so no approach can ever be completely devoid of its influence. Recent work with the textual evidence in the south of Britain has been valuable to our understanding of that region (Braund 1996; Creighton 2000, 2001, 2005), yet this would probably not have been possible without the considerable advances made in understanding the late pre-Roman Iron Age and early Roman period archaeology of that area.

Textual evidence has often been taken by modern scholars at face value, presenting its own problems. Its consideration often takes precedent over the archaeological material as it is considered to be explicit rather than the implicit evidence provided by the physical archaeological remains. There has been a realisation that the textual information presents its own biases, in the form of the authorship, purpose and readership. These all have an impact on how the texts should be interpreted. Notable examples of this in regards to the northern frontiers are the works of Maxwell (1975; 1980), Maxwell and Hanson (1983) and Breeze and Dobson (1976) as they placed considerable emphasis on incorporating the textual evidence with the archaeological interpretation. There has not been an explicit realisation in northern frontiers studies that one also needs to take the reader into account. This has been considered to a greater extent in ancient history where the interpretation of text plays a greater role and has been acknowledged to influence the ways in which classical sources are used (Braund 1996). Braund (1996) has highlighted the limitations of textual sources in addressing Roman Britain, through a discussion of the literature relating to the conquest of Britain up to the end of the Trajanic period.

There has been growing recognition in literary criticism over the last century that textual sources are as implicit as material evidence in that they require interpretation and conceptualisation in the present in much the same way as a brooch or glass bangle.

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[10] Whether this is possible is another matter, the need to place archaeology at the forefront is the most direct method of bringing frontier studies in the north of Britain up to date with current questions being asked in Roman archaeology and archaeology in general. James (2002) has argued extensively for this position.

Northrop Frye (1957) argued that all of the arts are in a sense 'dumb' and only criticism has a voice. This, combined with the works of Wayne C. Booth (1988) who argued that the role of the audience and reader are significant, influences any understanding of a text and suggests that we need to consider the ethical implications of using textual sources in an uncritical manner. Discussions of the *Votadini, Selgovae, Notantae, Brigantes*, and the *Caledonii* should be left aside for the time being. The writings of Tacitus, Ptolemy and others need to be subject to as detailed a scrutiny as any modern site report. For an example of how complex interpreting textual sources are, a reinterpretation of a specific text from the Vindolanda tablets is proposed below. This will highlight the implications of considering the context of the source, as well as how modern bias affects interpretation. This tablet (no.164) has been used widely in debate concerning the relationship of the military and the 'native' population and reads as follows:

> "...nenu...n. Brittones nimium multi · equites gladis · non utuntur equites · nec residunt Brittunculi · ut · iaculos mittant"
>
> The Britons are unprotected by armour (?). There are very many cavalry. The cavalry do not use swords nor do the wretched Britons mount in order to throw javelins.
>
> (Bowman & Thomas 1994, p. 106)

The term *Brittunculi,* which has been interpreted as 'wretched Britons' because of its contemptuous tone, has been used to support the argument that Tungrian and Batavian units would have had a hostile relationship with the locals and were dismissive of them (Bowman 1994, p. 29). While this seems to be an unambiguous reading of the text, it is possible that, given that the units stationed at Vindolanda originated in *Germania inferior*, the statement reflects more than just a mere dismissal of the locals' fighting ability. Sociologists have noted that ethnic groups often down play similarities and exaggerate differences between themselves and others within certain social settings (Fenton 2003; Menchaca 1995). Menchaca (1995) has shown that Hispanics in California which are native to the region are constantly reinforcing their own similarities with the dominant Anglos and actively distance themselves from any Spanish speaking immigrants from central or south America, reinforcing their place within the existing dominant Anglo power structure. They even refuse to speak Spanish with many of the immigrants. This is all part of a subtle power play in maintaining a

distinction between themselves and the lowest social rung. Something similar could be behind the motives of such dismissive statements in the northern frontiers. The Batavians could be attempting to reinforce the differences between themselves and the locals, and strengthen their ties to a Roman powerbase. The auxiliary tombstones of Lucius Nisus Vodvilleius found at Lancaster and Longinus found at Colchester, which depict a mounted cavalryman riding down a subjugated 'native' may have been constructed within a similar context of reinforcing their connection to Rome and distancing themselves from any native connotations. The Bridgeness distance slab is also similar in form (Ferris 2000), but given that it is a legionary distance slab (Phillips 1974) it is less likely to be indicative of auxiliary identity, but these sort of Imperial images may have acted as a template. The Hispanic example is not necessarily a direct comparison, but it does highlight the possible complexities involved in understanding even the most seemingly straightforward of texts with regards to understanding the motives of those who write them. Such problems become even more complex when we consider what these texts can inform concerning the local native population. If the effects of Roman occupation on the peoples of the north are to be fully understood, archaeology must be placed at the forefront for the time being and it should not be forgotten that "one of the harshest penalties paid by non-literate communities to posterity is that of being perpetually misunderstood" (Maxwell 1975, p. 31).

2.3 'Roman-native' Divide

The use of textual sources to inform understanding of the Roman north, needs to be understood within an archaeological framework. However, the nature of this evidence is not without its biases, especially within the archaeology of this period and with what can be classed as a 'Roman-native' divide. This is not the first time this problem has been highlighted or the first attempt to resolve it. The earliest approaches to this period in the north often focused all discussion of Iron Age sites within a context of Roman interaction or domination, and much of Jobey's later work on settlement in the area can be seen as a reaction to this approach.[11] Jobey (1978a; 1985) excavated a variety of 'native' sites and asserted the importance of many of the non-Roman phases on these 'native' sites, implying the importance of the archaeology and arguing that it should be viewed outside of the paradigm provided by Roman studies. His work was very

[11] As well as many Iron Age specialists working in Scotland namely (Armit & Ralston 1997; Frodsham 2000; Haselgrove & McCullagh 2000).

successful in this regard, indicating that many sites were occupied much earlier than the Roman period. Yet as the result of a desire to reinforce the importance of the Iron Age period, prehistorians have often avoided any discussion of sites within a frontiers framework (see for example Harding 2001, 2004, 2006). Recent arguments on both sides have called for a more inclusive approach to study. One of the earlier attempts to address this issue is the work of Hanson and Maxwell (1983), highlighting the importance of an inclusive approach to the northern frontiers. These authors spent a considerable amount of time in their work addressing the local communities and what evidence is available to them in relation to the Roman frontier.

Unfortunately while it is an admirable survey of the information to date in the early 1980s, it was hampered by a general lack of material available at the time to address this issue and relied heavily on literary sources and generalisations of Iron Age society. However, this provided a fundamental building block for studies regarding interaction in the northern frontier. A more recent discussion of the importance of these issues and how to address them can be found in the work of Hanson and Macinnes (1991). They propose the neccessity for Roman and Iron Age archaeologists to work together, as well as addressing the past bias toward Roman sites over those of the local communities. They also highlight the bias in Roman studies towards the forts rather than civilian or extramural features such as annexes and *vici*. This same issue is argued by Simon James (2002, p. 23) and Breeze and Hanson (1991). The early 1990s saw a general increase in the number of calls to study the 'native' aspect of the Roman frontiers in northern Britain (Breeze 1996; Breeze & Hanson 1991; Hanson 1997; Hanson & Macinnes 1991; Keppie 1989). This shift in emphasis was brought about by studies in the Netherlands and Germany which successfully explored interaction between local native communities and the Roman armies (Hingley 2004, p. 327). The more integrated agenda of the continental Roman archaeologists demonstrates the full potential of studying frontiers in an holistic manner (see Bloemers 1991a, 1991b; Creighton & Wilson 1999; Gerritsen 2003; Roymans 1990, 1995, 1996, 2004; Wigg 1999), which was (and still is) generally lacking within Scottish studies. It should, however, be noted that the situation is slightly different in northern England, where certain scholars have pursued a more inclusive agenda (Bewley 1994; Higham 1989; Higham & Jones 1985; Hingley 2004).

While there have been numerous attempts to address this division (Armit 2005; Breeze & Hanson 1991; Hanson & Macinnes 1991; Hunter 2001, 2007), there has been little

discussion of how this issue arose in the first place (but cf. James 2002, 2005).[12] In order to understand the current situation it is necessary to review how some issues of interpretation developed. The remainder of this chapter will discuss some of the factors that have created this situation, while also exploring the argument that little has been done to change the current framework since the situation is mutually beneficial to the 'factions' involved in studying the northern frontiers.

2.4 Past Biases

The study of both the Roman and 'native' sites in the northern frontiers region can be divided into broad groups or trends in relation to how archaeologists have approached interaction in the north. While there is a degree of chronological distinction in these groupings, to see the debate merely in these terms is misleading as there is considerable overlap. Early approaches to studying the northern frontier tended to focus on how existing settlement and excavated material related to a predominantly Roman historical framework (see Richmond 1958b for an example of this approach). Sites that were excavated tended to be dated in relation to a tight Roman chronology based around periods of occupation, and often focused on perceived specific events namely abandonment or possible destruction layers which were attributed to the Roman occupation. Early work on sites such as Torwoodlee Broch (Piggott 1951), Burnswark (Christison *et al.* 1899; Collingwood 1927; Schulten 1914), and Wooden Law (Richmond & St Joseph 1982) placed considerable emphasis on 'Roman' action. Much of this interaction was framed within hostilities between Roman armies and the local population, evidenced by the slighting of Torwoodlee, and the proposed sieges at both Burnswark and Wooden Law. Conversely the apparent prosperity of Traprain Law and the proposed later unenclosed sequence at Hownam were interpreted as being a by-product of the *Pax Romana* (Jobey 1966a, 1966b). On the whole, very little was understood about Iron Age society of the time, with most models focusing on classical sources and tribal groupings. Prehistorians concentrated on what they saw as the increased defensive nature of many sites, forwarding arguments of an increased hierarchical system and viewing change and innovation as the result of successive waves of immigration and conflict (Piggott 1950; Piggott 1949, 1958, 1962, 1966). This

[12] Hingley (2000) also adds insight to this issue even though the bulk of the work concerns early approaches to understanding of both biases in Roman archaeology and Romanisation. Many of these later issues are caused by an early desire to study Roman Britain in a different light from other archaeological periods, and the tendency to see the Roman Imperial past in a favourable light.

was seen to culminate with the arrival of the Romans and their final occupation of the region. Because of these outlooks, in southern Scotland the Roman armies were seen as the primary motivators of change and action; all understanding could be derived from Roman causes. This approach was focused primarily on interaction, but saw it within simplistic terms, that of mere reaction on the side of the local 'natives.' The value of non-Roman sites was in what they could reveal about the Romans or more specifically about specific periods of occupation. Little emphasis was placed on understanding society in any complex fashion. While much of this work occurred fairly early, there are still examples of such an approach being pursued today (see Wilson 1989, 1995, 1997, 1999, 2001, 2003).

Many of the early Iron Age archaeologists were complacent in this approach (notably Piggott 1951), but this situation began to change in the 1970s. One of the earliest examples of work in the region that began to focus primarily on understanding local sites in the region was that of George Jobey, with his excavations at both Boonies (Jobey 1974a) and Burnswark (Jobey 1978a), which focused on providing an understanding of Iron Age society, rather that merely utilising these sites to inform our understanding of Roman occupation. Much of Jobey's work represents a transition in this process, as his overall syntheses often attempted to place this new understanding of the Iron Age within a classical framework (see Jobey 1966b, 1971a, 1974b). He was also strongly influenced by Roman sources in regard to both of his arguments on *Votadinian* settlement and the Roman period origin of rectilinear enclosures (Jobey 1966b). This can be understood not only by considering the timeframe within which he was working, but also by his close connections to the 'Durham school' (James 2002).

Roman period settlement is increasingly studied primarily by prehistorians, and the reasons for this shift are multiple. The complexities of dating these sites in any refined manner in the north was combined with a shift that occurred within Roman military studies which became increasing dominated by the Durham school. Simon James has discussed the development and overall agenda of the Durham school which was focused primarily around the personality and work of Eric Birley (James 2002, pp. 17-26). The objectives, and the areas of focus of the scholars who formed this school, were primarily concerned with creating tight chronologies for the forts and tracing individual soldier's careers, mainly through epigraphy (James 2002, p. 18). In this regard, Roman military studies were to become increasing insular, focussing on those questions about the

Roman armies which could be answered with little need for an understanding of the larger context of the archaeology of the north. During this period sites and archaeological evidence in the north, which had once been seen as sources of information on interaction (primarily hostile, but interaction none the less), were reinterpreted, so that they revealed information on the internal workings of the Roman military. Burnswark and Woden Law were no longer the sites of sieges but rather examples of training exercises and practice (Davies 1972, 1974, 1989; Jobey 1978a). Fort destruction layers were reinterpreted as examples of military procedure involved in the demolition of old barrack blocks as standard and logical practice (Breeze 1977b; Breeze & Dobson 2000, pp. 106-7; but see Hodgson 2005 for a critique). All Roman action could be understood within a framework of military procedure relating to decisions made by Roman officers. The local populations were for the most part written out of discussion.

While Roman military specialists were distancing themselves from any detailed discussion of the local population (exceptions can be seen in the work of Hanson & Maxwell 1983; Higham & Jones 1985), prehistorians in Scotland were also questioning the ability of non-Roman sites to inform the debate on the Roman impact. They highlighted the continuity in many of these sites, minimising the overall impact and importance of the Roman occupation. As Armit and Ralston state, "the presence of the Roman army is not reflected by significant changes in the archaeological record of indigenous communities for the country as a whole" (1997, p. 169). The focus of study became increasing period-based and, while this benefited from a broader theoretical outlook associated with the changes sweeping through archaeology at the time, such accounts rarely attempted to address the impact of the Roman occupation. Increased excavation accentuated the complexities of understanding Iron Age society at the time, creating an image of a complex and heterogeneous culture, which seemed to defy many of the earlier attempts to present a simple and broad understanding. The Hownam sequence (Piggott 1950) was questioned as well as the extent and organisation of hierarchical tribal societies (Armit 1999b). A pastoral model gave way to one of mixed agriculture as both field remains and pollen samples suggested a mixed economic system (Armit & Ralston 1997; Halliday 1982). *Oppida* showed little Iron Age occupation that appeared to increase during the Roman Iron Age period and the possibility was proposed that they might be ritualised gathering places rather than urban towns and production centres (Hill 1982a, 1987; Hingley 1992b). This led to the

emergence of a complex model of Iron Age society which seemed to question the simplistic tribal models attested in both the literary sources and earlier work.

The lack of large scale Roman finds was also used to argue for limited Roman impact (Armit & Ralston 1997; Macinnes 1989). Multiple references highlight the short time frame of occupation (Hingley 1992b, p. 7): Armit and Ralston state that "even the army's presence was intermittent."(1997, p. 183), whilst Hanson argues that "none the less the time scale is very short" (1997, p. 198). Yet, as Hingley (1992b) points out, this does not necessarily limit the need to consider the overall impact. Unfortunately, this focus on the relatively short period of occupation has lead some to dismiss the need to consider the Roman occupation (Banks 2000; Harding 2006). Such an outlook in regard to timescale is a by-product of the prehistorian's tendency to deal with long concepts of time. While 40-80 years may seem like a relatively short period in relation to the Iron Age, or Roman Iron Age, it is a very long period when concerned with generational changes and individual life spans. Whole generations would have grown up during the Roman presence. The imposition of Roman control would have had considerable influence on how local people viewed both their world and their role in it. The tendency to minimise discussion of the impact of the Roman presence has also been materialist in nature, highlighting the apparent lack of material impact. Hunter (2001) and Willis (1999) criticised this view by stressing the often overlooked amount, and quality, of material culture in the north. Conversely, Hunter (2001) reinforces the notion of continuity by placing these Roman finds within existing social practices.[13] Overall this has created a tendency for Iron Age archaeologists to spend little time considering the specific impact of Roman armies. While this has addressed the earlier bias of conceptualising the Roman Iron Age within a solely Roman framework it has ignored a potentially informative avenue of exploration.

It can be claimed that the lack of discussion by prehistorians on the subject of the Roman occupation can be attributed to an unconscious tendancy to view this subject in a nationalist manner. While it is a simplistic view of the situation, it has long been argued that the early people of what is modern day Scotland, held the Roman Empire at bay. While this has no real reflection on archaeological evidence, it has become part of the

[13] While this work has been incredibly useful in understanding Roman Iron Age society as well as putting forth an interesting understanding of non-Roman use of these goods, there is no explicit discussion of how these preferences played out in practical terms. Did the users of these artefacts have consumer power in terms of what they could or would acquire? Or was the presence of primarily feasting goods reflective of a supply side issue or the product of Roman perceptions or stereotypes of Iron Age culture?

national mythology of Scotland, to the extent that it even became the focus of recruiting songs for the Black Watch.

> In the garb of old Gaul, with the fire of old Rome.
> From the heath-covered mountains of Scotia we come;
> Where the Romans endeavoured our country to gain,
> But our ancestors fought, and they fought not in vain.
> Such our love of liberty, our country, and our laws,
> That, like our ancestors of old, we stand by freedom's cause;
> We'll bravely fight, like heroes bright, for honour and applause,
> And defy the French, with all their arts, to alter our laws.
> (The Garb of the old Gaul, a recruiting song of the Black Watch,
> by Lieutenant-General Sir Henry Erskine 1748)

This song does not necessarily represent Scottish values as it is far more likely that it projects English ideas about the primitive and uncivilised nature of the Scots (Hingley 2000, pp. 39-41). Yet over time these negative connections levelled at Highland Scots seemed to have coalesced into a national myth which finds credence today and is largely accepted because it suited multiple agendas. The English could see the lack of Roman occupation as representing the backward nature of the Scots, and the Scots in turn have Romanticised the idea of brave heroic Caledonians forcing back the Roman armies (Harvie 2004, p. 12). It matters little where ideas originate in regard to ,how they are included within national identities (Hobsbawm & Ranger 1983; Withers 1992). Indeed a parallel can be drawn with the adoption of the modern kilt – which was invented in the 18th Century and greatly tied into English perceptions of the Highlands (Withers 1992, pp. 150-1). In this light, the archaeological examples of the downplaying of Roman impact can be seen as a case of correcting a bias of over emphasis. Conversely, the desire to identify these prehistoric peoples with modern day Scots contributes to the division in the ways that late Iron Age societies have been approached in the north and south. This, combined with what Sharples (1991b) and James (2002) identify as a 'post-colonial guilt' and the unease of discussing issues of violence, brought about by a century of warfare, makes addressing these issues uncomfortable in the present. It is often easier not to consider the unpleasantness that occurred in the past. While there are archaeologists working in Scotland who are not Scottish, this does not negate the possibility of a nationalistic root as there is often the tendency to side with the oppressed, and much of Scottish nationalism as a whole has its roots in stereotypes and characteristics created and reinforced by others.[14]

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[14] In this note there is a certain amount of irony in regard to the recruitment song of the Black Watch, as the regiment was created by the British government to put down Scottish rebellion and later served as

There is also the fact that such modern perceptions could present a simplistic and negative view of Scottish origins further separating them from the English. Piggott (1958) argued that the Highlands have remained unchanged until relatively recently (Sharples 1996). Unfortunately little has been written on Scottish nationalism, the exception being Sharples (1996), who focuses primarily on the English biases present in Scottish archaeology rather than any national biases of the Scots. For the most part discussions of nationalism in archaeology have focused primarily on the extreme cases such as Nazi Germany (Jones 1997) and Massada rather than how subtle biases can affect understanding of the past (see Díaz-Andreu & Smith 2001; Hingley 2000; James 1999; Walsh 1992). Both Scottish nationalism and the tendency of Romanists to often sympathise with the Romans as ancestors of the English has contributed to the current situation.[15] The Romanisation model which has been applied to much of southern England (Millett 1990) might have as its root in nationalistic tendencies (Hingley 2000). Its reconceptualisation in recent Roman archaeology, while based on this long historic lineage, may reflect a new form of nationalism in that the 'natives' inhabiting what is modern England are not seen as passive receivers of Roman culture but as active agents in negotiating its adoption. This argues for cultural assimilation in these areas rather than mere conquest and occupation. This implies a culture receptive to, or capable of utilising, the benefits of Empire as opposed to other areas on the continent, such as France and Spain, which have been studied within a context of conquest (Albarella 2007). This modern tendency of discussing Roman archaeology within the context of Romanisation south of Hadrian's Wall, as opposed to north, reflects a desire to see modern political and ethnic divisions played out in the past.

2.5 Conclusion

This section has discussed the (insular) approaches towards which the Roman military has been studied, as well as how prehistoric archaeologists downplay the importance of the Roman occupation in order to justify its isolation from Roman influence. Both of these broad approaches are mutually beneficial to both Roman frontier archaeologists

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force in the expansion of the British Empire. In this regard the regiment can be seen as a tool of British Imperialism and colonisation not least of its native home Scotland.

[15] See Hingley (2000). For a fairly recent example of this thought process one need look no further than Vindolanda where a monument in a style similar to a First World War memorial has been erected to remember those that died defending the Wall, showing a clear association with the Roman troops rather that the local native peoples.

and prehistorians. They allow each to explore their own narrowly focused agendas without having to fully engage with the larger implications of what was occurring in the northern frontiers during the Roman period. Any approach that is not fully grounded in an understanding of Iron Age society and Roman archaeology will be in a position where it can be easily dismissed by the other. Without these key issues being rectified or explicitly addressed, it will be difficult to begin to tackle the issue of interaction in the northern frontiers. The current perceptions of both Roman society and 'native' society, as currently viewed, have been summarised in Table 2-1. These are generalised perceptions and do not always apply to all of what has been written, but the majority of studies have reinforced many of these perceived traits, often drawing upon information derived from the archaeological record. Some of these assumptions will be addressed in this study. This division between developed and primitive is similar to the model developed by Hingley (2000, p. 148) in his consideration of the tendency to associate the Romans with 'us' as opposed to the 'natives' with the 'other.' The connection between the Romans and modern ideas goes further than this as classical roots are now seen as a model for and originator of modern globalisation (see Hingley 2005, pp. 118-20). This tendency to perceive the past within the paradigm of the present is both an extremely seductive and at times a useful model, but carries with it flawed concepts.[16] The back projection of modern ideas biases the way that archaeological evidence is seen and constricts it to rigid models which may not accurately portray the past realities of the Roman frontiers.

[16] While this tendancy to perceive the past within the paradigm of the present is mostly unavoidable, it should be explicitly acknowledged (Hingley 2005).

3 Theoretical Considerations of Spatial Analysis and GIS in Archaeology

> The consistency condition which demands that new hypotheses agree with accepted theories is unreasonable because it preserves the older theory, not the better theory. Hypotheses contradicting well-confirmed theories give us evidence that cannot be obtained in any other way. Proliferation of theories is beneficial for science, while uniformity impairs its critical power (Feyerabend 1975, p. 35).

The purpose of this chapter is to address the application of spatial analysis and GIS within the overall study. This is not part of a direct discussion of method (which occurs in Chapter Five), but rather focuses on the theoretical implications of the utilisation of GIS. This discussion is necessary because this study relies largely on GIS software and spatial analysis and is further complicated by the subject matter, which deals with human social interaction in the past. In order to utilise a technique or technological equipment one has to be familiar with both the limitations and flaws inherent within it. Therefore, the shortcomings of GIS will be reviewed, both in terms of how they dictate the nature of study and the theoretical implications that arise from its application. A broad discussion of spatial analysis follows which will allow for a review of general criticisms of the application of GIS.[17] While many of the critiques discussed have been addressed in archaeological literature there has been a far more extensive debate within geography which has been included in the discussion to better understand the issues at hand.

The second half of the chapter deals specifically with the discussion of phenomenology and GIS and questions the applicability of such frameworks in archaeology. Given that utilising GIS to tackle social issues in archaeology is theoretically problematic, the final section addresses how to resolve this issue within landscape studies. What is effectively argued is that solutions to this problem should be multiple and discrepant in nature and that each historic situation and study is unique, given that their circumstances will differ as well as the questions asked about specific phenomenon. Only through variation and experimentation can the full potential of GIS be revealed and archaeology as a discipline begin to make an impact on GIS studies.[18]

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[17] A more in-depth discussion of spatial analysis can be found in Hodder and Orton (1976) and a basic critique in Shanks and Tilley (1987b).

[18] Knapp (1996) argues a similar point with regards to incorporating multiple and alternative paths to understanding the past.

3.1 Background on Spatial Analysis in Archaeology

Spatial analysis has a long history in archaeology; on a rudimentary level it has always been present, from the discussions of the earliest excavations through to the application of distribution maps. It was not until the development of 'New Archaeology' in the 1960s that spatial analysis became more sophisticated, with the introduction of methods from the discipline of geography. Many of these methods had a clear spatial element, such as: site catchments, optimum foraging theory, central place theory, rank size analysis, Thiessen polygons and other forms of tessellations. All these approaches rely heavily on a Cartesian notion of space.[19] The application of these methods marked a complete departure from earlier cultural-historic mechanisms for understanding past cultures. This has already been thoroughly discussed in archaeological literature (Earle & Preucel 1987; Johnson 1999b; Shanks & Tilley 1987b) and there is no need to review it in extensive detail here, other than to note that it represents a significant shift in how archaeology is practiced. The development of GIS can be seen in the same tradition as these earlier methods, as it was developed within a Cartesian concept of space. It has also been noted that many of the methods employed within archaeology using GIS, represent more sophisticated versions of the aforementioned models (Van Leusen 2002).

The early spatial analysis of New Archaeology was criticised for its positivist assumptions. Also highlighted was the origin and purpose that these models were originally developed for. Few, if any, of the spatial models had their roots in archaeology, and even though they were introduced to archaeology from geography most were not solely developed in that discipline either. Central place theory and site catchment analysis developed out of 'least cost location theory' first forwarded by the Prussian landlord Johan Von Thünen (1783-1850) (Hall & Thünen 1966) and later developed by Weber (Weber & Friedrich 1929). The version of 'central place theory' utilised in archaeology was a direct application of the model developed by economist Walter Christaller (Christaller 1972; Christaller & Baskin 1966; Rössler 1989). This dealt with the economic hierarchies of modern cities. The application of 'site catchment analysis' was based on these principles but was also specially tailored for archaeological

[19] Cartesian space can be as an extension of Aristotelian logic accumulating in an abstract notion of space. Cartesian space is a result of Descartes work on Euclidean geometry, which chose to represent the location of any fixed point as the intersection between the x and y axes and was later to incorporate the z axis. The three dimensional models created by these methods are fundamental for measuring space, yet also carry with them specific ways to view and reconstruct space.

application by incorporating ethnographic data with the ideas of 'least cost location theory' (Bailey & Davidson 1983; Higgs & Vita-Finzi 1970, 1972) but see for critique (Flannery 1976 ; Hodder & Orton 1976; Rossman 1976). Many of these concepts and methods were developed to address planning and economic issues of market driven corporations, and the application of similar methods to 'central place theory' and 'site catchment analysis' are most often applied today in deciding where to place retail centres. Similar criticism has been levelled at GIS where many of the functions of the software were developed for corporate and governmental use: i.e. military planning (Harley 1989; Pickles 1991, 1995b, 1995c, 1997, 1999, 2006; Sheppard 1995a, 1995b). While we can see an intimate relationship between the principal ideas of New Archaeology and the later application of GIS, which has led some to claim that GIS is little more than visually revamped naïve empiricism (Pickles 1999; Taylor 1990, pp. 211-2; Wheatley 1993), it would be simplistic to view GIS and its application as merely a continuation of positivism. It would be an error to dismiss GIS for two main reasons. Firstly. given that the vast majority of archaeological data contains a spatial element, GIS has huge potential for collecting, organising and mapping this data. As such, archaeologists will become increasingly dependent on GIS. Secondly, as GIS appears likely to dominate the treatment of spatial data, at this relatively early stage it would be wise to engage with and question the way GIS is developed and utilised rather than leaving it to technicians, who we might expect to be more concerned with simply whether a given approach is possible rather than the theoretical implications.

Increasingly we will see archaeological data stored within GIS databases. This is already occurring in the RCAHMS and English Heritage, and is becoming more common within SMRs in England and through web data exchanges such as ADS. The software is becoming a fundamental feature of both governmental and public archaeology, yet few academic specialists are emerging in archaeology to deal with this substantial change. This is not to say that there is not sufficient technical knowledge, but there has been surprisingly little debate about what this means to the discipline of archaeology. Within the next two decades the issue will be impossible to ignore, as an increasing number of excavations and fieldwork are carried out with GIS. It *will* become impractical (if not impossible) to carry out research involving archaeological landscapes, regional studies and eventually even some dimensions of finds analysis without utilising GIS. What is occurring is a fundamental change in the way archaeology is undertaken, and rather than being part of mainstream archaeological debate over how this proceeds

(as occurred with both the paradigm shifts of New Archaeology and post-processualism). It is being slowly introduced with far too little direct discussion. This fundamental change will have future ramifications for archaeology which may dwarf earlier theoretical impacts. So it is important that following the example of geographers, archaeologists who utilise GIS begin to address the theoretical implications with both GIS technicians and general practitioners of archaeology. If there is proper engagement, there is a greater possibility that archaeology will begin to develop its own methods and frameworks for GIS rather than receiving these second-hand.

3.2 Theory and GIS

3.2.1 Introduction

Given that so much of this study involves the application/utilisation of GIS in attempting to understand past social context and change, it is necessary to discuss the divide that often exists between discussions of theory and the application of GIS. There have been a number of articles that have addressed this topic in archaeology (Gaffney & Stançic 1995, 1996; Gaffney *et al.* 1995, 1996; Gaffney & van Leusen 1995; Huggett 2000a, 2000b; Lock 2003; Wheatley 1993; Witcher 1999),[20] but it is poorly studied when compared to the debate ongoing in geography. The critique of GIS in geography can be broadly separated into external critiques (by non-practitioners of GIS) and the internal critiques which have focused on addressing problems with the technology and attempting to find solutions (Schuurman 2000; Schuurman & Pratt 2002; Sheppard 2005).[21] These critiques can be seen in simple terms as either overly negative, as seen in those external critiques which argue that there are fundamental flaws in GIS and its conceptualisation of social issues, and the more optimistic internal critics who, while identifying problems, believe that they can be solved and need not limit the application of GIS. A divide along these lines is understandable, in that practitioners of GIS have much to lose from a wholesale abandonment of the technology in dealing with social matters, vs. the external critics whom, falling outside GIS's general sphere of influence, feel potentially isolated as the technology finds general acceptance. It would be an error, to simplify this debate to an argument based around notions of "reactionary vs. revolutionary" or to some Kuhnian paradigm shift. Many of the theoretical issues raised

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[20] Yet few of these deal with this in any in-depth manner aside from (Lock 2003; Wheatley 1993; Witcher 1999).

[21] It should be mentioned that archaeology differs from geography in that most of the critiques have been forwarded primarily by internal critics.

by both internal and external critics have extremely important ramifications for the application of GIS; these are discussed in greater detail later in the chapter. Many studies conducted with the aid of GIS often fail to address theoretical issues outside of those that deal directly with the technology (i.e. what kind of data to use, the quality of the data and discussions of which statistical equation to employ), although this is understandable given that they are working with a technology still in its infancy in terms of its application to social issues.

3.2.2 Critiques of GIS

The critiques of GIS can be broken down into four main discussion as these critiques contain considerable overlap in the ways in which they deal with how and why GIS is applied in analysis. First are the implicit positivist assumptions inherent in the application of GIS and how they typically present only one way of viewing reality. Second is the tendency toward environmental determinism that most GIS projects advocate, this is compounded by the easy availability of environmental data. Thirdly, the origins of GIS are often brought into question, and finally (but connected to this) are the issues about the politics of accessibility.

GIS can logically only deal with material that can be measured, recorded or "represented in spatial computer based analysis" (Lock 1995, p.16). As such, it is self limiting in its application (Kvamme 1997; Lock & Harris 1995). Because GIS is largely dependent on digital computing, Pickles (1999, p. 54) argues that it is constrained "by the structure and logic of the Turing machine, which employs deductive, Aristotelian logic". This has lead to many of the applications of analysis of GIS to be positivist and functionalist in nature representing sophisticated ways of applying often outdated methodology, but at the same time these approaches ignore the criticisms levelled at these techniques in the past. In order to facilitate this lack of engagement there has been a shift in discussion from *knowledge* to *information* (Pickles 1999, p. 51; Taylor 1990). This issue has been addressed in archaeology by Wheatley (1993) and Witcher (1999), and both forward constructive ways to tackle this problem within the discipline. Yet the issue still remains of how entrenched these concepts are within GIS itself. GIS relies on a notion that there is a "single version of reality to be modelled" (Pickles 1999, p. 57). Harris (1995a; 1995b) even questions the current ability of GIS to deal with or incorporate alternative realities. In order for the application of GIS to be fundamentally applicable or even relative to modern multi-vocal archaeologies these issues will have to

be addressed. Pickles (1999, p. 57) asks, "what a 'pluralistic GIS' would look like and what it would imply for ways in which GIS can be used in collaborative decision-making remain open questions". The problem is that the application of GIS software favours one particular way of 'knowing', or at least conceptualising the world. While this may be the current preferred Western method, this does not alleviative the fact that it is severely limiting for archaeologists in achieving multiple or alternative views of the past. This issue with one particular way of 'knowing' is best highlighted by the debate around perceiving the landscape and different way of 'looking', which have been explored within various disciplines over the last thirty years. Two specifically important works on this subject have been the edited volumes: *The Iconography of Landscape* by Cosgrove and Daniels (1988) whose contributors explored different ways of 'looking' and 'viewing' within past Western contexts and *Senses of Place* edited by Feld and Basso (1996), where culturally different methods of understanding the landscape were detailed. Considering this context it should be noted that 'Roman' and 'native' ways of conceptualising space and 'knowing' will have been fundamentally different from contemporary methods.

Within archaeology the positivist outlook embedded in GIS often takes the form of 'environmental determinism' (Gaffney *et al.* 1996; Gaffney & van Leusen 1995; Wheatley 1993; Witcher 1999, p. 15) or 'cultural ecology'. This is not only a by-product of GIS, but also relates to the wider acceptance of cultural ecology in processual or New Archaeology and its enduring pre-eminence in North American archaeology (see Meltzer 1979; Patterson 1986). The availability of readily accessible data available to GIS practitioners is also a considerable factor. This is highlighted and defended by Kvamme (1997, p. 1) who states: "this circumstance is only natural since in most regional maps of the physical environment are relatively easy to obtain. Consequently, through GIS, archaeological distributions have been examined for relationships with such environmental factors as soils, geologic, topographic, hydrologic, or biotic conditions". What may also factor into the application of environmental considerations is that it gives a misleading security in what is being studied, while archaeological material is often viewed as fallible, suspect or incomplete, environmental data is often accepted uncritically and is seen as lending a certain air of authority to the study, something objective. So rather than studying the spatial analysis between possibly fallible archaeological material and sites, archaeological features are often analysed in relation to these 'objective' environmental features (see for example Anaya

Hernández 2001; Bewley 1994, pp. 9-10; Estrada Belli 1999). This can be seen partly as a by-product of the lack of data sets which have been designed with the archaeologist in mind. It should be noted that this is not an indictment of ecological approaches to archaeology or to the use of environmental data; both have contributed greatly to the field. If anything, recent post-processual approaches in archaeology have often failed to adequately engage with environmental data (McGlade 1999; Wilkinson 2003, pp. 5-6).

The origins and development of GIS have also been criticised as embedded within corporate, government and primarily military interests (Gregory 1994; Pickles 1991, 1999; Smith 1992). Smith (1992) highlighted the military aspect of GIS in *GIS über Alles*, claiming that the Gulf War represented the first full-scale GIS war. These criticisms are of an ethical nature and look at how GIS factors in the limiting of personal freedom on a broader scale, best highlighted by Pickles' (1991) article *The Surveillant Society*. What level of concern these critiques should be to archaeological practitioners of GIS is a personal one but what they do highlight is that technology cannot be easily separated from the mechanisms of its development (Mander 1977; Winner 1986). The discussions of origin and development lead into questions about access to the technology. GIS is, for the most part, an extremely expensive software solution that is rarely accessible on an individual level aside from the very rich, or those within an institutional setting such as students and academics in Western countries. While some of the more basic GIS software is freely available for download on the internet, this only partially solves the problem as the hardware needed to utilise this software is still relatively costly, combined with the cost of acquiring the data. This limits the current use to primarily corporations and institutions (Pickles 1999). In addition to this is the accessibility of expertise to utilise GIS which requires a certain amount of computer skill to access. These issues have been further discussed by Sheppard (1995a), who argues that GIS has *increased* social inequality.

The final concern with the application of GIS software, especially within archaeology, is the validity of its application in certain studies or to address specific questions. These can be best summed up as the misuse of GIS in archaeology and in this regard bears striking similarities to the development of statistics in archaeology. Discussion of any specific papers or projects will be intentionally avoided, but archaeologists familiar with the use of GIS in archaeology can conjure an example to mind where GIS has been used

for its own sake rather than any clear beneficial reason.[22] Many of these do little more than use GIS to state the obvious, or, more worryingly, to make work seem topical and important often by creating a large number of appealing pictures. Thomas(1978) in his article *The Awful truth about Statistics in Archaeology* discusses the tendency to bandwagon and method push with statistics. These criticisms can just as easily be levelled at some of today's applications of GIS in archaeology: "I'm talking about the graduate student who cloaks an otherwise lackluster dissertation in meaningless symbols and fatuous numbers" (Thomas 1978, p. 235).

3.2.3 Theory-free Tool?

Irrespective of the critiques, the application of GIS will only increase within the discipline. However, it is important that the theoretical issues of using such a process are developed in order to be aware of the limitations and biases within GIS. The focus of this section is to address these theoretical concerns surrounding GIS and archaeology. Given that a large portion of this study is undertaken with GIS software, this study would not be possible without its application. As such it is necessary to discuss the theoretical ramifications of the use of GIS for the study. This need to address the underlying assumptions of GIS is made more pressing in that it receives very poor coverage in archaeology compared to the extent of overall use of GIS in the discipline. This may be because of the widely held view in archaeology that GIS and its use is theory-free or (ideologically) neutral, and only becomes theoretical when data and ideas are *applied* to it. For example Aldenderfer has remarked (in the introduction):

> It is important to stress, however, that as a tool, GIS and associated technologies are "theory-free," in that there is no necessary isomorphism between a particular data type or category and the use of GIS to solve or explore a problem. (1996, p. 17)

Surprisingly the quote above was published after Pickles' (1995a) edited volume *Ground Truth* which contained articles which addressed this very idea within the discipline of geography.[23] But even in 1995 it was no new concept that the use of GIS would affect the questions asked and the data used. Even in archaeology this was beginning to be discussed as early as 1992 by Wheatley (1993) and in further detail in an article (Gaffney *et al.* 1996) in the very volume in which Aldenderfer's quote appears. This concept of a neutral GIS still persists in many of the studies undertaken in

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[22] To either illustrate the strength and flexibility of the GIS software, or to produce aesthetically pleasing but explanatorily banal images that does not shed light on the issue being discussed – what Edward Tufte would call 'chart-junk' (Tufte 1983, 1997).

[23] Given the length of time involved in academic publications its possible that Aldenderfer had written the piece before Pickles's work appeared.

archaeology (see for example Anaya Hernández 2001; Estrada Belli 1999), yet is increasingly difficult to support (Meskell & Preucel 2006, pp. 12-3).

The prevailing belief held by most archaeologists is that GIS is nothing more than a tool, and as such, biases within studies which utilise GIS could be considered the by-product of those carrying out the study. There has been a substantial debate within geography over the last fifteen years as to whether GIS should be seen as a tool or a science in its own right. This division has been more fully explored and shown to be more complex than a simple binary opposition (Wright *et al.* 1997). Wright (1997) constructed three broad views of what academics considered GIS to be, (or rather how it should be categorised). The first was to regard GIS as a tool, much like a word-processing system; something utilised within a study but only to display or map data. The second is to view it as 'tool making'. It is given more weight than just a tool as it has the ability to develop methodologies, highlighting the role of users in the development of the application. The third view is to consider it as a science in its own right, much in the way that computer sciences developed out of the technological development of computers. GIS as a science would also include an "analysis of the fundamental issues raised by the use of GIS" (Wright *et al.* 1997, p. 346). The case was strongly made that the only credible academic view could be the latter: GIS as science. This argument has attracted growing support (Raper 2000), and it has become commonplace to see talk of GI*Sc* (Geographical Information *Sciences*) rather than GIS (Geographical Information Systems). This has contributed to GISc becoming a sub-discipline within geography. The most important aspect of considering GIS as a science or sub-discipline is that it allows the evaluation of the underlying assumptions of GIS. While GIS is thought of as only a 'tool' it is impossible to address its inherent biases, as discussion of bias will always be relegated to those using it and the theory they employ. In these terms the adoption of GIS in archaeology must be viewed as more than just the adoption of a few methodologies and rather as a merging of disciplines, which will result in a change of worldview when employed within studies. It is as significant a change as that of New Archaeology with its links to geography, or to 'interpretive' archaeology with its links to anthropology (see Johnson 1999b). Both of these changes can be seen as creating competing worldviews for archaeology and are similar in a disciplinary sense as they deal with analysing past material culture.

3.2.4 Worldview

Key to understanding the biases and assumptions inherent in GISc is an understanding of its worldview. Raper sets out to define the worldview that GIS subscribes, working with a definition forwarded by Kuhn (1962), "as a set of assumptions and commitments to which a 'research programme' subscribes" (Raper 2000, p. 5). As such, a worldview must form a set of opinions on the following:

- the theoretical grounding and conceptualisation of 'world' employed (metaphysics)
- the methodology by which the contents of the conceptualised world are defined, ordered and signified (ontology)
- the procedures by which knowledge of the conceptualised world is established and evaluated (epistemology)
- the nature of human knowledge of the conceptualised world (philosophy of mind)
- the nature of language and its role in communication and the construction of meaning (linguistics)
- processes of cognition, the nature of intelligence and the functioning of the mind (cognitive science)
- the nature of computation employing symbolic and informational representations of human knowledge (informatics)

It is important to note that in an archaeological study that makes use of GIS at least three worldviews must be taken into account, each with their own views on the aspects of the above list. These include: the worldview of GIS, the worldview of archaeology (multiple ones are competing here as can be seen from comparing even a small randomised sample of theoretical discussions of archaeology in the last twenty years), and lastly (but often overlooked) are the worldviews held by the group in the past archaeologists attempt to study. This latter group of worldviews are often what archaeologists endevour to discover through their archaeological studies. The extent and validity of this can and should be debated and is mentioned here to show the complexity of this issue with regard to archaeological study. This may seem irrelevant to those carrying out archaeological investigations, but if it is not addressed in particular studies it will have ramifications on the conclusions that are made. Conclusions then will be based on assumptions which are considered irrelevant to modern archaeological discussion and "in particular it is suggested that the use of GIS modules may lead to the unwitting exposition of an environmentally or functionally deterministic viewpoint of a type that has largely been rejected by most archaeologists" (Gaffney *et al.* 1996, p. 132; Wheatley 1993).

The discussion of ontology, epistemology and GIS in archaeology has recently been tackled by Rajala (2004), yet overall she focused on archaeological issues without discussing the inherent differences in the outlooks. She seems to reinforce the notion of a single ontology and epistemology, which ideally may be the case in a strict philosophical sense, but is not the reality when scrutinising different disciplines.[24] GIS by it very nature dictates "a particular epistemology for studying the world" (Sheppard 1995a), this being a positivist and Cartesian view (see Figure 3-1). In this regard, feminist critiques of GIS offer a particularly unique advantage point to further address the limitations inherent in GIS worldviews.

3.2.5 Feminism and GIS

It is important to remember that GIS can be seen as an extension of Cartesian space and as such all the criticisms levelled against Cartesian space can be levelled against GIS. In archaeology one of the clearest critiques of Cartesian space was forwarded by Bender (Bender 1993, 1999) who stated that a Cartesian view was biased by what she describes as a gendered 'gaze', as it incorporates a masculine way of perceiving and viewing the world.[25] Her work echoed the sentiments of earlier feminist critiques carried out in history and geography which focused on the bias of maps and though not specifically directed against GIS bore striking similarity to feminist critics of GIS in geography which focused on the perceived impartial 'totalising' and objectifying view (Bondi & Domosh 1992; Goss 1995; Haraway 1991; Kwan 2002a, 2002b; Lake 1993; Tomášková 2007).

Yet discussions of alternative approaches are often problematic given that feminist studies of gender are still grappling with how such a view can be neutralised. "Seeking to subvert women's invisibility, gender studies tend to keep the same traits that characterize totalizing Western knowledge, which is based in the assumption of the autonomous capacities of an all-seeing, knowing subject" (Lazzari 2003, p. 195). This critique of the desire to make 'visible' can be readily applied to the ability of GIS to

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[24] Ontology here and throughout this study will relate to the philosophical definition rather than the definition commonly held in AI (Artificial Intelligence). Gruber has suggested that: "In the concept of knowledge sharing, I use the term ontology to mean a specification of a conceptualization. That is, an ontology is a description (like a formal specification of a program) of the concepts and relationships that can exist for an agent or a community of agents. This definition is consistent with the usage of ontology as set-of-concept-definitions, but more general" (Gruber 1993, 1995). It is interesting to note that this definition does have some interesting applications in regards to GIS.

[25] A more appropriate phrase would be dominant as there is nothing that excludes women from this view any more than minorities, yet it evolves from a primarily western male dominant view of the world.

assess these questions, as the primary role of GIS is to visualise from a top-down perspective – though, of course, such a top-down, all-seeing, perspective lacks *any* humanistic aspect. This is only one aspect of the feminist critique of GIS which addresses many of the general critiques.

There is also a second feminist criticism of GIS which deals with access, regarding the number of GIS practitioners that are women (Kwan 2002b; McLafferty 2002; Schuurman & Pratt 2002). While this is a valid complaint which needs to be addressed it can also been seen as an entirely separate from feminist issues with GIS as a technology. While all three articles highlight examples of feminist GIS projects which have enriched the field, an increase in women GIS practitioners would not necessarily solve the feminist theoretical issues with GIS as technology (contra Kwan 2002b). However, the application of a feminist perspective within GIS studies does highlight many of the problems with traditional GIS studies and 'encourage alternative ways of looking', subverting the objectifying view typical of past GIS studies (Kwan 2002b, p. 276). Virtual landscapes could be useful to addressing this issue of perception yet traditional methods have also been shown applicable if used imaginatively. A good example of this can be found in Whitley (2002a; 2002b) where viewshed analysis is used to reconstruct the access corridors that slaves would have used to escape a southern plantation offering an enriched understanding of the layout of both the slave's accommodation and the overseer's house. Whitley's articles then attempted to address a very social question with what is otherwise a fundamentally functional tool. By utilising the technology and using it to articulate interesting questions which differ from its primary purpose, new ways of understanding the past become possible.

3.3 Archaeology and GIS

3.3.1 General

Archaeologists have not on the whole been explicit about the origin of the theoretical debates that surrounds GIS. Most early critiques, both internal and external, took place within geography and it is from this that further understanding the overall implications of the adoption of GIS within the social sciences can be understood. This ignorance of the full range of the debate is highlighted by the following recent quote; 'Debate has focused on the extent to which GIS research is environmentally deterministic. This discussion has its roots in a dissatisfaction held by archaeologists using GIS of the

limited use of theory by many of their colleagues.' (Symonds 2003, p. 5). While Symonds is correct in stating that much of the theoretical debate over GIS in archaeology has focused on environmental determinism, she fails to grasp the fact that GIS itself is the product of a specific theoretical background, and as such cannot easily be dismissed as a theory free tool to which any theory can be applied. This is not surprising given that she considers theory as something which is optional and as such either 'used' or simply avoided. No position is external to theory. The scholars referred to above by Symonds are working within a theoretical framework (normally a cultural ecological one) which they are often not explicit in acknowledging. It is through acknowledging the inherent biases of GIS that the technology can be adapted to uses which are then compatible with postprocessalist archaeologies (Gaffney & Stançic 1995; Gaffney *et al.* 1996; Gaffney & van Leusen 1995; Raper 2000; Wheatley 1993; Witcher 1999).

3.3.2 Data and GIS

The question of data in any archaeological study is often one of key importance, it is no less so when carrying out a study with GIS. Given the cost of creating much of the data usable in GIS it is not surprising that the majority of these data have been borrowed from other sources. More often that not these data have been compiled without the archaeologist in mind, and often comes from a variety of sources, such as: mapping agencies, government bodies (including a large amount of declassified military data), environmental agencies and geographic studies. The GIS software was developed for many of these uses, as were many of the functions included within them. It is testament to the creativity of archaeologists that they have found productive uses for these data and methods. However, as in many of the methods utilised in New Archaeology, such as site catchments, central place theory, optimum foraging theory (which were also borrowed and adapted), they carry with them many of the assumptions and theories of human behaviour. There is also the assumption that the data projected by GIS are representative of the real world (often among non-GIS users but not limited to them). What is meant by this is that the raster data maps, TIN's and other maps generated through GIS from coordinate points accurately *display* the environment rather than just modelling it. While GIS data can be placed in a spectrum of accuracy which is constantly improving (more points and better collected data increases accuracy), it will never fully reflect the actual 'lived' world. Accuracy of the data then should be explicitly separated from the validity or accuracy of the conclusions. While this may

seem obvious it does need consideration in that what is being undertaken is modelling with models[26], when analysing archaeological data in GIS.

3.4 Moving Toward a Social Model of Archaeology and GIS

3.4.1 Problems

Both Van Leusen (2002) and Tschan (2000) point out that the postprocessual approaches of Bender (1993) and Tilley (1993; 1994; 1999; 2004; 2007) and many "theoretical advances are entirely devoid of any current methodologies or even of the potential of such" (Tschan *et al.* 2000, p. 33). They also argue that fundamentally there is little difference between GIS approaches to cost surface and visibility studies and phenomenological approaches; "talk maybe of 'perception' and 'meaning' rather than of 'viewsheds' and 'patterns' of 'the hermeneutic spiral' rather than that of 'exploratory data analysis'; but there the difference ends" (Van Leusen 2002, p. 3). While statements such as these should appeal to the type of study undertaken here, as they attempt to merge or at least take into account these juxtaposed views, they are problematic. One cannot help but feel that they have missed the central point of phenomenological approaches. The arguments put forward by Tilley and Bender are lacking and "devoid of any current methodologies or even the potential of such" (Tschan *et al.* 2000, p. 33) because they are intrinsically at odds with these very notions. As Tilley states: "there is and can be no clear-cut methodology arising from it [phenomenology] to provide a concise guide to empirical research. The approach requires, rather, a continuous dialectic between ideas and empirical data" (Tilley 1994, p. 11). They present notions of social 'space' and 'place' which cannot be measured by methodologies and are inherently dismissive of such:

> That might best be called ethnographical tact. It is a patient art, and frequently a passive one. No one lines up people and asks them to define "place" and list three examples of it. No one really has a theory of it. No one imagines that it is some sort of data set to be sampled, ordered, tabulated, and manipulated. To study place, or , more exactly, some people or other's sense of place, it is necessary to hang around with

[26] This will vary depending on what the GIS is being used for, but a DEM is a projection based of different height values which is effectively a model of the terrain. These models vary in how accurate they are, from a few centimetres to somewhat less precise. When these coverages are then used to create archaeological models, the focus is on the reliability of this process rather than how the initial layer was created.

> them to attend to them as experiencing subjects, as the responsive sorts of beings for whom, in Casey's words, "the world comes bedecked in places." (Geertz 1996, p. 260)

How we rectify these views of 'place' with archaeology, which must be methodologically driven due to its lack of familiarity with the subjects of the past, is core to any understanding of social space. The scepticism of phenomenology to be directly applicable, shown by archaeologists concerned with methodologies (see Fleming 2006), is also shared on the opposite end by those who pioneered interpretive approaches within anthropology. Given that much of what post-processual archaeology has attempted to achieve is a Geertzian notion of 'thick description' of the past, it is interesting to note Geertz's own scepticism regarding whether this would be achievable without an ethnographic familiarity (Geertz 1973 1996). It is no surprise that perhaps one of the most interesting applications of phenomenological landscape studies to the past, consisting of a study that is more that just a layering of ones own experiences of the landscapes onto the past (based on the assumption that phenomenological experience is some how universal), is the work of Keith Basso (1984; 1996a; 1996b). Basso's studies are anthropological in nature, even though they are concerned with the past. His work focused on the recent past of the Western Apache and would not have been achievable without the direct communication he had with his study group. Yet, as Geertz (1996, p. 262) argues, without a sense of place "our understanding will be thin, general, surface, and incomplete", highlighting the importance of place within our understanding of the past.

Can archaeology ever be truly phenomenological? Probably not in most cases, unless the simplistic view of the Heideggerian phenomenological concept of 'being', in which the important aspect of phenomenology is the sole aspect of experiencing the world 'bodily', is accepted (see Casey 1996). This seems fairly obvious, but it is unclear what understanding this can truly lend; or if any fundamental advantage in dealing with the past is gained from it. At its worst, this can be seen as romantic: e.g. W.G. Hoskins, steeped in the idea that archaeologists have some greater form of understanding caricatured through idyllically wandering around the landscape. This view is explicit in Tilley's work where the claim is made that the knowledge gained through his physical interaction is superior to that which comes from desk based analysis (Tilley 2004, p. 17). On the whole this is a rather 'etic' view which is very classist in nature (see Fleming (2006, pp. 269-73) for a general critique of phenomenological approaches in archaeology and Shanks (2006) for a specific discussion of these ideas). This is ironic

given that phenomenological approaches have criticised traditional landscape approaches and specifically those of W.G. Hoskins for being politically biased and classist in nature (Bender 1998, pp. 28-30). The knowledge archaeology provides is not adequate in most cases to achieve a truly embedded view, yet a familiarity with these concepts prevents the false assumption that a greater understanding of what occurred in the past is achieved, and increase the possibilities considered when studying material culture and landscapes.

In a sense, with archaeology's reliance on method, it is possible that the best we can hope for is an understanding of the past which is "thin, general, surface and incomplete" (Geertz 1996). This does not mean trying to develop an understanding of past which is 'thick' with description should be abandoned. In this regard it may be more useful to think in terms of 'socially embedded space' rather than phenomenology. If this view is applied to landscape studies a dialectical relationship can be assumed to exist between individuals and society at large and the landscape, where the landscape is embedded with social meaning which is inscribed on that landscape both metaphorically and sometimes physically. This can already be seen to some degree in the phenomenological landscape studies which have been developed in archaeology, but also occurs in discussions of the landscape which are not necessarily phenomenological. How this is measured will be unique to every circumstance, which greatly complicates the matter.

It is interesting to note that phenomenological discussions began occurring in archaeology shortly after the utilisation of GIS. While it borrowed from a longer tradition of phenomenological discussion in both anthropology and geography their application in archaeology could be seen as a reaction against the growing view that GIS and spatial analysis lead to a greater understanding of the physical environment. Archaeological environments were becoming the domain of the technological, and as such the role of human understanding or interpretation was being minimised and to a certain extent being made obsolete as the technology became more sophisticated. In much the same way as artists were to redefine the role and function of art in the 19th and early 20th centuries in reaction to the photograph and to mass/electronic reproduction (Benjamin 1936; Gombrich 1950),[27] archaeologists (chiefly Bender 1993, 1998; Edmonds 1999; Thomas 1996; Tilley 1994), redefined the nature of the physical

[27] Benjamin's essay deals specifically with the reproduction of art or the value of a copy in relation to the original; the implication of this in regard to photography is fairly straightforward.

environment choosing to focus on the concept of landscape and its social nature, placing it clearly outside of the influence of both GIS and spatial analysis and reasserting a humanistic approach to its understanding.

3.4.2 Solutions

Up to this point, this account has been negative and critical in discussing the application of GIS in archaeology. This perspective is unfair with regards to the considerable advantages to be gained by using GIS software, as recent archaeological projects have shown (see Allison 2006a; Allison 2006b; Allison *et al.* 2005; Chapman 2006; Whitley 2002b). How do archaeologists then deal with the limitations and problems inherent in GIS? The first step is to acknowledge these problems, for only by being aware of the inherent biases of GIS can they be taken into account and hopefully avoided or at the very least recognized, and their potentially undesirable effects minimised. In the long term, solutions should become available as archaeologists engage with the development of a theoretically aware GIS. Key to this is developing methodologies relevant to archaeologists rather than simply importing wholesale methods developed for (and thus potentially bound up with the separate agendas of) other disciplines or ends. There might be advocation for the creation of new software to deal with the special needs of archaeologists in relation to space and temporality, as advocated by Barcelo (2005). Even though it may be time-consuming, the creation of datasets by archaeologists is of the utmost importance in this process and can lead to beneficial results and databases for future studies ((see Allison *et al.* 2005)[28] for an example of the benefits of archaeologist created databases). This in time will lead to a stronger faith in archaeological datasets without the reliance on modern environmental data. While there are fundamental issues with Cartesian space, it is not necessarily problematic in archaeological understanding as long as it is acknowledged that it represents a limited view of understanding space. Actually it can be quite beneficial in that it allows a very set and quantifiable method for studying archaeological landscapes. Conceptually speaking there is much to be gained from the 'etic' view it presents.

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[28] The focus of this particular study is an attempt to illuminate the presence and role of women at the legionary fortress of Vetera I, while the focus and conclusions of the study are of great interest, it is the methodology of the study which bears most on what is being proposed here. By creating a spatially aware database of small finds within the Roman fortress it was possible to address contextual questions in a meaningful manner, highlighting the ability of a GIS aided approach in addressing social and archaeological issues.

Visibility studies in archaeology are a useful example of this approach as many have recently attempted to incorporate a phenomenological approach (Gillings & Goodrick 1996; Llobera *et al.* 2004; Van Leusen 2002; Wheatley 1995; Wheatley & Gillings 2000, 2001; Witcher 1999). *Stonehenge Landscapes: Journeys through real-and-imagined worlds* contains a computer generated virtual model of the Stonehenge region on an interactive CD and allows the viewer to navigate the virtual creation and speculate about the importance of the viewer's location (Exon 2000). Some studies have even gone so far as to create an 'interactive video navigation' which is theoretically informed (Bartley & Hancock 2006). Yet one of the main problems with visibility studies in archaeology is that while they desire to create an 'emic' view, without a socially embedded understanding of what is being viewed, at best what can be achieved is 'etic' in nature. One of the possible ways to circumnavigate this problem would be to embrace the perceived handicap and rather than lament the partial knowledge available, attempt to make it meaningful in new ways. By combining viewshed analysis with quantification it is possible to assess or speculate on the importance of certain sites or material culture (see for example Moore 2007a; Moore 2007b). This is achieved by measuring the amount of finds or sites which fall within the visible viewshed of specific sites to assess the importance of visibility in settlement patterns and finds distributions (see Figure 3-2). While such an approach is based on set assumptions in regard to the social importance of the landscape it does allow the archaeologist to begin to go beyond the often visual mentality and self reflection which dominates so many phenomenological archaeological studies. It also places a stronger reliance on the archaeological data (which may be problematic), but given that the data are the foundation of archaeological inquiry, they should be utilised fully. Given the nature of both archaeology and GIS changes, advancements in this field will be unfortunately slow and time consuming while the technology adapts to deal with these issues.

How problematic are many of the issues raised? Archaeology is after all a speculative discipline and while quantification and scientific rigor should be upheld, there will always be problems with the methods employed. Rather than limiting what can be utilised, the discipline as a whole can be enriched by these multiple views and methods. A proliferation of methods can often yield interesting results but it should be acknowledged that the most important stage of archaeological study is not the data or the methods used to analyse the data, but how these results are interpreted which depends on the questions asked. As Feyerabend puts it: "'History generally... is always

richer in content, more varied, more many-sided, more lively and subtle than even'[29] the best historian and the best methodologist can imagine" (Feyerabend 1975, p. 17). In this regard there has been a drastic improvement in archaeological GIS studies in the last ten years; and questions such as those raised here are becoming more complex and relevant to current archaeological issues. While some of the problems of recent phenomenological applications of GIS are highlighted, they do represent a real advance in GIS studies in that they engage with the larger theoretical debates in archaeology.

3.5 Impacts on This Study

With all the drawbacks highlighted in regard to the utilisation of GIS in archaeology, is it even applicable for understanding social interaction in the north of Britain during the Roman period? Could this study have been completed without GIS? Certainly a study of social interaction in the north is *possible* without GIS, yet given the nature of the material discussed it would have been prohibitively problematic to carry out this research in the absence of such a spatial database. GIS has allowed not only a large number of finds and sites to be considered (far more than would have been possible in this time scope without a GIS database), but it has also facilitated a multi-scale spatial analysis which would have been otherwise impossible. By comparing both the relationships between finds and sites, regional differences and similarities have become apparent which would have been largely undetectable with traditional analysis.

New insights into the interaction between the local communities and the Roman garrisons have become apparent, leading to a more complex model of frontier life. Not only has the utilisation of GIS software allowed new interpretations, it has also made it possible to statistically test the spatial findings. Given that such broad study questions were asked of the material, without any uniform existing methods that determined how to deal with such a project, the databases once created allowed many different approaches to be tested. Not only were new methods developed but, given the flexibility of the platform, multiple methods were able to be combined allowing an in-depth study. By combining existing methods such as viewshed studies, cost-distance/time analysis and numerous other spatial techniques new insights were gained, as well as clearer

[29] Feyerabend is altering a quote of V. I. Lenin here but the general idea is still applicable.

understanding of the benefits and limitations of these approaches. What has become most apparent during this study are the possibilities of experimenting with GIS and attempting to develop new methodologies. While these specific methods are discussed in detail later on, the possible benefits of GIS to landscape studies and social interaction are apparent as long as appropriate questions are asked of the data. "GIS methods and data should be used in a particular study based on the research questions, instead of letting the technology and existing data determine what to study" (Kwan 2002b, p. 276).

3.6 Conclusion

While GIS has been fundamental to this project in allowing the analysis of large spatial datasets and experiment with new methods, consideration has been made of its limitations and how it has guided the project in certain directions (primarily pushing the study to consider environmental factors). In order to deal with these issues it has been beneficial to address the overall biases of GIS, which has been kept separate from an in-depth discussion of the methodology employed in this project. As long as biases are recognised and debated they need not necessarily hamper development but will allow a reflexive and far more informed debate, enabling the development of new methodologies and the collection of additional data. While GIS is dependent on a Cartesian notion of space it is still an extremely flexible platform which allows for a variety of methodologies and discrepant types of data to be included, from traditional point data to pictures, drawings and a variety of other visual data (Kwan 2002b). This allows each study to be addressed in relation to its own individual circumstances. This is an interesting contradiction in that one would expect a uniform platform to be wholly restrictive in regard to how data are studied. Given the uniqueness and diversity of archaeological features and material, this allows the GIS database and software to be customised to each individual study. While such an approach is less rigid, it relies on a considerable amount of data entry and processing. With the proliferation of techniques and the development of new methodologies; GIS in archaeology changes the way archaeological data is recorded and displayed but also how it is understood.

4 Memory, Metaphor and Archaeological Time: A Dialogue with Marcel Proust

4.1 Introduction

Time is fundamental to archaeology however, for the most part, discussions of time remain peripheral in archaeological discourse. The ambiguous nature of the way that time is considered in discussions of the northern frontiers of Roman Britain has had a substantial impact in the way that interaction has been and can be considered. In this chapter temporality is considered, initially examining the nature of time and how in contrast archaeological time has been understood. This will be followed by a discussion of the incompatibility of prehistoric time and classification of time utilised within Roman studies in the north. It is the problems which arise from incorporating these temporal classification systems which is at the heart of consideration of the nature of interaction in the northern frontiers. By utilising memory as a metaphor for time, it will be shown that these classifications systems can be seen as a benefit rather than a handicap in the consideration of past society. The final section of this chapter will deal with how these ideas specifically relate to the archaeological record of the northern frontiers of Roman Britain. The example used to illustrate these temporal issues will be the morphological and temporal classification of enclosures, specifically the issue of rectilinear enclosures. These general issues about time are further highlighted by the utilisation of GIS, as depicting temporal evidence within GIS is often problematic. Whether this relates to the limitations inherent in GIS software, or rather that its utilisation acts as a mirror highlighting the inherent problems within temporal models in archaeology, is more difficult to resolve. Yet 'time' is more that just an interesting aside as the consequences of how it is considered have substantial ramifications on how the northern frontiers of Britain are understood.

4.2 Archaeology and Time

We do not know the past in chronological sequence. It may be convenient to lay it out anesthetized on the table with dates pasted on here and there, but what we know we know by ripples and spirals eddying from us and from our own time. (Pound 1952)

Conceptualising or understanding the past is integral to archaeology as a discipline. As such, consideration of the nature of time is equally important. Yet the nature of time is

often taken for granted in archaeological discourse (Lucas 2005, p. 1). The nature of time is conceptually problematic and has been the focus of extensive philosophical and scientific discourse (Lucas 2005, pp. 19-24; Murray 1999a, p. 1; Raper 2000, pp. 102-15). What is most often discussed by archaeologists is not the nature of time or time *itself, but rather the classification of time, namely chronology (Lucas 2005, pp. 2-3). Chronologies form the bedrock of archaeological study. Not only are sites and finds* classified according to chronologies, but chronologies themselves become "an essential part of archaeological reasoning" (Lucas 2005, p. 9). Archaeological remains can be understood within different chronologies, dependent on the context (Lucas 2005, p. 3), or in relation to the questions being asked, and the scale being addressed. These archaeological chronologies can be subdivided into two main types, namely relative and absolute chronologies (Lucas 2005, pp. 3-5) (see Table 4-1 which illustrates the main types of chronologies). It should be noted that both types of chronologies can be considered relative within a post-Newtonian framework of time, so the distinction becomes one of chronologies based on an ordinal system (relative) and those based on an interval system (absolute), though this does not substantially change how these chronologies are seen or utilised (Lucas 2005, pp. 8-9).

The concept of chronologies has been largely criticised because of how it affects the nature of archaeological enquiry (Lucas 2005, pp. 9-10). It presents a linear notion of time which is embedded with a notion of evolutionary progress and a 'totalised' account of the past (Lucas 2005, pp. 10-4; Thomas 1996, pp. 95-7). Time and history become mere periodisation which is universal and homogenous and as such limits the nature of enquiry. This chronological periodisation can also be seen as the by-product of colonial European hegemony (Lucas 2005, pp. 13-4). This has led to a number of different approaches to considering time in archaeology which attempt to deal with the inherent problems of chronology. The two main approaches are the adoption of the *Annales* school and incorporation of lived time. These approaches are similar in that they are non-linear in the traditional sense but differ greatly in how time is addressed (Lucas 2005). The archaeological application of the *Annales* school, which integrates different scales of time, has tended to emphasise the *longue duree* based on the work of Braudel (1972; 1980), focusing on long temporal changes within the archaeological record (see Bintliff 1991; Knapp 1992). The second approach is not really a coherent or unified model as it is made up of many divergent methods and approaches. They have been grouped together for simplicity and because they share certain similarities. The two

main commonalities between these techniques in dealing with archaeological time are that they all attempt to consider perceptions of time in past societies and that they have a theoretical problem with modern linear notions of time which is often equated with a capitalistic worldview (Bradley 2002; Gosden 1994; Leone 1978; Murray 1999b; Shanks & Tilley 1987a, 1987b; Thomas 1996). These approaches have addressed the role of material culture in social memory, the biographies of artefacts and the relationship between the past and present. While all utilise different temporal techniques, the primary focus is on time as a lived experience rather than an agent-independent measurement. The approaches can all be seen as critical of temporal systems dependent on traditional chronologies but as Lucas (2005, p. 27) has stated it would be prohibitive and undesirable to abandon chronologies as they remain an essential aspect of archaeology. This attempt to go beyond linear notions of time displays similarities with the discussions of phenomenology and GIS as they are, at heart, fundamentally insurmountable. Yet by being aware of these issues, it forces archaeologists to re-conceptualise and justify the temporal categories they employ.

4.3 The Temporal Divide Between Roman and Prehistoric Studies

Many of the issues relating to time addressed earlier relate directly to studies of the northern frontiers of Britain. Barrett and Fitzpatrick (1989) highlighted this when considering the divide between 'native' studies, which have been undertaken within the framework of prehistoric archaeology, and studies of Roman military remains, which have been the preserve of Roman researchers (the nature of this divide has been addressed in Chapter 2). This divide has had a negative effect on frontier studies in that it has limited an holistic discussion of the northern frontiers. Barrett and Fitzpatrick (1989, p. 9) rightly describe it as a difference in scale between the *longue durée* approach to history of the prehistorians and that of the Roman studies, which has favoured a short term view of history, focussed upon historical events and individuals. "This distinction is not just a matter of different chronological scales of analysis, nor of different qualities of data, but concerns profound differences in the perception of the historical processes, differences which are not directly compatible" (Barrett & Fitzpatrick 1989, p. 9). So this distinction is more than just a clash of chronological systems but concerns the very nature of the questions being asked of the archaeological record and how to interpret that record (Jones 1997, p. 146). This specific problem is

one that is far from easy to resolve, though there have been attempts to address the issue (see Jones 1990, pp. 104-13, 1991). The issues of scale in relation to chronology are something which can be further explored in relation to the northern frontiers.

Prehistorians have traditionally understood the area within the framework of the Three Age system, specifically the broad chronological category of the Iron Age. While this system has been refined and subdivided into the smaller and more chronologically discrete groupings of an Early, Middle and Late Iron Age, and in the case of Scotland the Roman Iron Age, these are still fairly broad chronological groups often covering periods in excess of two hundred years. And while the temporal realities of archaeological remains are recognised to vary within such groupings, it has been seen as not problematic for discussions to downplay such inconsistencies or temporal irregularities in favour of the benefits gained by these broad chronological groupings. The nature of archaeological evidence has also contributed to this, due to the often ambiguous nature of dating techniques. It is rare for dating evidence to be more specific than what these broad chronologies already consider, and it is further complicated by the circular nature of much of the dating evidence.[30] This allows for the archaeological material to be seen as broadly contemporaneous within these categories, as such it is possible to measure and compare between them and look for indicators of continuity or change. A side effect of this approach has been the tendency to view particular archaeological phenomena as being unique to a period and to present a specific sequence of changes as diagnostic to site types. An example of this is the Hownam sequence which dominated the understanding of hillforts in the southeast of Scotland up until the early 1980s (Armit 1999b, pp. 65-70). The Hownam model argued for a broad sequence in hillfort development which followed a formulaic progression which began with a palisade enclosure and was succeeded by a univallate enclosure, then a multivallate, and ended with an unenclosed phase of occupation (Armit 1999b, p. 70; Hill 1982a). It was in the late 1970s and early 1980s that it was realised that this model was overly simplistic and often not applicable to other sites, such as Broxmouth (Hill 1982a). This led to a realisation that the archaeological record for south-eastern Scotland was far more complex than could be accommodated within a single model, yet few new models have been suggested (Armit 1999b, pp. 70-3).

[30] The fact that temporal categories are based on groupings of artefacts.

While this view of a broad *longue durée* approach partly reflects the current state of Iron Age chronology, it is problematic as it does not adequately reflect the historical development of the chronological divisions. While the current chronological system of Early, Middle and Late Iron Age is constantly being updated by new advances in dating techniques (Cunliffe 2005; Haselgrove *et al.* 2001, pp. 2-3), it still has its intellectual roots within the ABC system developed for the British Iron Age by Christopher Hawkes (Hawkes 1931, 1959). The ABC system was never initially intended to act as a chronological categorisation for the British Iron Age (Hawkes 1959, pp. 172, 4). Rather than being temporal indicators, they reflected perceived cultural groupings. Hawkes articulates this specifically thus:

> I have said already that A, B, and C are cultures and not periods. That this has been less clear than it might have been was my fault at the outset, for I gave their full names as 'Iron Age A', 'Iron Age B' and 'Iron Age C'. What I meant, of course, was Iron Age A culture, B culture, and C culture. But while the word 'culture' was implied, it was not used. Thus, the terms have been all too easily misunderstood as meaning the Iron A-age, B-age and C-age; and since A, B, and C may overlap, people have had to think of the Ages as overlapping. Really, what overlap are the cultures, so the term 'Age' has to bear not an absolute but only a relative significance. (Hawkes 1959, p. 174).

Yet it was acknowledged that such cultural groupings did contain an implied temporal ordering; "by definition, they begin one after the other; but they overlap and sometimes therefore influence each other, to varying extents in time. And in themselves, their internal features and connexions can give only relative chronological indications" (Hawkes 1959, p. 172).

Hawkes' desire to clarify this issue points to the extent to which the ABC system had been taken to represent chronological categories (Champion 1979, p. 348; Jones 1997, p. 146); indeed it is still often seen in such terms today. For example: "Christopher Hawkes in 1931 proposed a three-phase chronological system – the ABC of the British Iron Age – to explain the various stages of hillfort development in southern England" (Payne 2006, p. 4). The confusion caused by utilising the cultural groups A, B and C as chronological divisions led Hawkes (1959, p. 174) to suggest a new chronological system for the British Iron Age which could be utilised in unison with the cultural categories. This chronology was to be based directly on a system developed to understand the prehistoric Mediterranean which was felt to be historically absolute at the time (Hawkes 1959).[31] These dated periods were to consist of Iron 1 (c. BC 550-

[31] This was based on a model of cultural diffusion, where traits were felt to originate in the Mediterranean and then move outward, in this case to the northwest.

350), Iron 2 (c. BC 350-150), and Iron 3 (c. BC 150 to the Roman conquest), these were further subdivided into smaller groupings such as 1a and 2bii which also had specific date ranges (Hawkes 1959, pp. 174-6) (see Figure 4-1 for Hawkes chronological table). This chronological system though was still largely implicated in the cultural-historic model of successive invasions and cultural replacements favoured by Hawkes, and while he was specifically concerned with England it was adapted and applied to Scotland by Piggott (1966). Ironically given the problems of chronological incompatibility between later prehistoric systems and those employed within Roman frontier studies, this initial system of Iron 1, 2 and 3 was developed to mirror the perceived convenience of Roman chronologies (Hawkes 1959, p. 174):

> One has to use terms like 'Middle-sixth-to-late-fourth-century', or worse, 'Early-first-century-B.C.-to-second-quarter-of-first-A.D.'. This sort of patter becomes quickly maddening. One needs something like the convenient Roman Emperors and dynasties, which give Romano-British chronology its 'Claudian', 'Flavian ', 'Antonine ', and the rest. In Iron Age studies, hitherto, we have been trying to meet this need with my A, B, C; but they will not serve us, because they are only cultural terms. A, B, and C in fact need dates to be given to them, before we can take dates from them for our material. (Hawkes 1959, p. 174).

It is within the chronological framework of Hawkes Iron 1, 2 and 3 that the later chronology of an Early, Middle and Late Iron Age was to develop, and while there has been significant refinement of this system and an abandonment of the ABC cultural model, the vestiges of the system are still inherent within Iron Age chronologies. While the problems with Iron Age chronologies have been discussed in an explicit manner (see Haselgrove *et al.* 2001, pp. 2-4), the same cannot be necessarily said for Roman chronologies of the northern frontiers. Lucas (Lucas 2005, pp. 98-101) has highlighted the often confusing and conflicting nature of chronologies for the Roman period by exploring how these categories are reflected in the life course of a Roman pot. He has, however, over emphasised the contradictory nature of these temporal scales, even referring to them as conflicting (Lucas 2005, p. 98) which is not necessarily the case. Such chronologies are often complementary or are for the most part issues of scale rather than containing inherent conflicts. Discussions of chronology in Roman studies deal almost exclusively with refining these chronologies rather than questioning the justification of them. This appears to be a by-product of how these chronologies came into being, as chronologies of the Roman period are almost exclusively an historic division. This does not mean that they are always utilised within a short term historic specific manner. It is over this issue that there has been a general division between Romano-British studies and frontier studies. What follows is a generalised

representation of chronology to illustrate the main point of this division in archaeological chronologies of the Roman period. Such an approach is problematic for there will always be examples which do not conform with the perceived trends.

The two main chronological systems utilised to study Roman Britain are those based on the Judaeo-Christian calendar system and those based on the reigns of Roman Emperors. Both systems have a long heritage in Roman archaeology, and are often applied in reference to one another. The classification based on reigns carries with it implicit implications about the mechanisms of change, the importance of a core political system, and the role of the individual in the historical process.[32] It offers a view of history that is specifically tied to historic events rather than gradual processes or societal change. It is within this chronological classification system that the northern frontiers have been traditionally conceptualised and continues to be so. The system based around the Judaeo-Christian calendar system, while also a historic chronology, has been used increasingly to describe broader processes and highlight periods of social change. In this way it is similar to the *longue durée* approach to history which has been utilised by prehistorians. A distinction should be drawn between the use of the calendar system to highlight specific dates as utilised recently by David Mattingly (2006) and that used to describe large temporal categories, such as the second century, as is often discussed in Martin Millett's (1990) account of Roman Britain. It is this second system that is highlighted here; Millett is one of the few that have been explicit about this temporal shift:

> In the last couple of decades those (like this reviewer) who have come to the subject through the archaeology of the 1960s and 70s have tried to write different types of history based primarily upon an analysis of excavated evidence from a variety of sites but with a principal emphasis on those away from the frontiers. They place less reliance on literary sources, instead preferring to draw on interpretative models drawn from the social sciences to examine broader long-term social and economic trends (Millett 1997).

It is far more common for this broad period based system to be employed to describe Romano-British sites and to discuss development during the Roman period in the south of England. This illustrates a divide not only in chronological systems between British Roman studies and frontier studies but also a concern with different scales and focus of study. The difficulties in integrating frontier chronologies and prehistoric chronologies of Scotland and northern England is also mirrored to a certain extent between frontier

[32] This connection to individual reigns is also connected to the importance of Roman coinage as a dating method.

chronologies and those employed in studying Roman Britain in general. The question then becomes one of how to integrate these three different chronological systems, without losing the benefits that each presents in relation to historical processes.

4.4 Memory as Metaphor for Time

But when from a long-distant past nothing subsists, after the people are dead, after the things are broken and scattered, still, alone, more fragile, but with more vitality, more unsubstantial, more persistent, more faithful, the smell and taste of things remain poised a long time, like souls, ready to remind us, waiting and hoping for their moment, amid the ruins of all the rest; and bear unfaltering, in the tiny and almost impalpable drop of their essence, the vast structure of recollection.

Marcel Proust, *Du côté de chez Swann*
(Proust & Scott-Moncrieff 1922)

In Samuel Beckett's (1931) analysis of Proust's writings he identifies three main themes; time, habit and memory. These three themes are intricately interwoven within Proust's work as they always come together in the process of remembering. The core requirement in the act of remembering and memory as argued by Beckett is forgetting. It is through forgetting that the Proustian notion of 'real' memory or involuntary memory can occur. Proust further juxtaposes involuntary memory against voluntary memory which is seen to be the product of habit, in that it lacks any revelation and as such is fallible; it is a product of the present. "The memory that is not memory, but the application of a concordance to the Old Testament of the individual, he calls 'voluntary memory'" (Beckett 1931, p. 32). Involuntary memory forces us to relive the past again, to experience it and interpret it. A remembered moment takes on profound meaning and undoes time in that instant. Memory requires forgetting to be truly meaningful.

This section argues that archaeological understanding of the past can be better understood through the metaphor of memory which relies on the Proustian notion of forgetting. The use of metaphor to illuminate understanding is by no means a novel approach. Indeed it has been argued that metaphor is integral to understanding and as such is largely taken for granted (Lakoff 1987; Lakoff & Johnson 1980). "Because we reason in terms of metaphor, the metaphors we use determine a great deal about how we live our lives" (Lakoff & Johnson 2003, p. 244). Time itself has served as a metaphor for memory, as well a number of other concepts from writing to digital hard-drives, in an attempt to further clarify and understand the nature of memory (Draaisma 2000). So memory itself is not a problem free concept, yet this has not stopped it from being regularly applied to archaeological understanding. The discussion of memory in

archaeological discourse can be divided into two broad categories; those dealing with social memory in the past, so historic and pre-historic use or rather re-use of earlier monuments and artefacts (Barrett 1993; Boric 2003; Dietler 1998; Eckardt & Williams 2003; Hingley 1996a, 1999; Rowlands 1993; Williams 1997, 1998, 2001, 2003a, 2003b, 2003c, 2004a, 2004b, 2005; Williams 2003d) and those which deal with the ideal of social or collective memory in the present (Boric 2003; Hall 2001; Lucas 2005, p. 132; Rowlands 1993; Zerubavel 2003). While both approaches utilise the concept of memory as a metaphor for time, it is the second which will be focused upon here. This collective approach is not without its criticism. Lucas (2005, pp. 132-6) questions whether the idea of collective memory is useful or even accurate, by focusing on the concept of forgetting, which he defines as a "lapse or failure of memory". Yet understanding prehistory is not correcting a lapse in memory but rather constructing a whole new memory. As such archaeology is not so much about "forgetfulness but amnesia [...] a pathology *so extreme* that we cannot even confirm that it is something we forgot" (Lucas 2005, p. 134). While this view of archaeological time as amnesia rather than memory is extremely convincing, it relies on the idea that memory is 'time' rather than acting as a metaphor. In this way memory is not time but rather like time in that it shares certain similarities.

There are a number of similarities between memory and archaeological time. Memories cluster – a small sequence of events or often a single defining memory can come to represent an entire period of one's life (Draaisma 2004, pp. 172-226).Through this metonymic transition, a degree of clarity occurs, allowing a part to come to represent the whole. This clumping of memory, and extrapolation from the specific to understand the general, is analogous with how archaeological chronologies are constructed, as various dates are banded together into broad groups where the data is often treated as contemporaneous. Memories are visualized within a forward linear progression and while they can be selected from any point in one's life the sequence of events are always remembered as a progression (Draaisma 2004, pp. 55-60). Again this is similar to how the past is often understood: as a linear sequence of events. Memories are also constructed, or invented, in a way in which such events take on a reality which at times can become unquestionable (Draaisma 2004, pp. 23-4). Yet it is the categories of voluntary and involuntary memory which can contribute the most to the understanding of archaeological time. If voluntary memory is the product of habit, as it is conceptualised within a pre-existing order of events which are biased by being

constituted in the present, then it is similar to the traditional view of history where the past is understood in relation to a set historical discourse which shapes how events and material are understood. In Roman archaeology this can be seen as a reliance on literal reading of classical texts, created from the tradition of understanding archaeological evidence within an Imperial discourse through the mechanism of Romanisation (see Hingley 2000, 2005). It is defined as voluntary because how it is understood has already been established. Archaeological material is often not voluntary in nature as the material discovered constitutes new and previously unknown material which can either be incorporated into the historical discourse in a way that supports the preconceived view of the past or force a departure, by necessitating a reassessment. In this sense the past is continuously re-conceptualised and understood within the present. In this sense the relationship between voluntary and involuntary memory is similar to the distinction that Foucault draws between history and archaeology[33] or more specifically, between the document and the monument[34]:

> The document is not the fortunate tool of a history that is primarily and fundamentally *memory*; history is one way in which a society recognizes and develops a mass of documentation with which it is inextricably linked. To be brief, then, let us say that history, in its traditional form, undertook to 'memorize' the *monuments* of the past, transform them into *documents*, and lend speech to those traces which, in themselves, are often not verbal, or which say in silence something other than what they actually say; in our time, history is that which transforms *documents* into *monuments*. In that area where, in the past, history deciphered the traces left by men, it now deploys a mass of elements that have to be grouped, made relevant, placed in relation to one another to form totalities. There was a time when archaeology, as a discipline devoted to silent monuments, inert traces, objects without context, and things left by the past, aspired to the condition of history, and attained meaning only through the restitution of a historical discourse; it might be said, to play on words a little, that in our time history aspires to the condition of archaeology, to the intrinsic description of the monument. (Foucault 1972, p. 7)

This change in historical perspective, for which Foucault (1972) argues, can be seen as already occurring within the *Annales* school of history, in that history ceases to be solely about interpretation and a search for the 'truth' but rather becomes about the mechanisms which construct the historical document. The involuntary nature of

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[33] Foucault's definition of archaeology employed within his discourse is a rather specific one that does not necessarily relate to that which is now commonly held. It is an idealised view of the value of a monument which supports his specific view of a distinction between history and archaeology. This does not however invalidate Foucault's conclusions. Ironically the very historical discourses that Foucault is arguing against when he suggests the adoption of an archaeological approach, has dominated archaeology throughout its history as a discipline (Tilley 1990, p. 292).

[34] Archaeology is seen as the study of *épistémès*, a set of totalities of an age or epoch similar to a Kuhnain paradigm but more encompassing in that all of society is bound up in the *épistémè* of any given period (Foucault 1972, pp. 189-93; Morris 1994, p. 10; Tilley 1990).

archaeological data allows it to be somewhat freed from the confines of historical discourse and, seen in this light, as a Proustian notion of an unshackled memory to be considered anew.

4.5 Considerations on Time in Regard to Rectilinear Enclosures

In order to understand how some of these ideas about time relate to the archaeological data from the northern frontiers, it is useful to discuss a specific example. Rectilinear enclosures are part of specific discussions of 'native' and Roman interaction in the north of Britain in all three of the case studies. How these sites are understood is of key importance to the overall discussion. Classification of these morphological types is discussed further in section 5.4.2, but here the temporal classification of these site types is discussed.

Archaeological discussions of cropmark, settlement morphology and typology have tended to focus on whether such feature types can be assigned to specific temporal periods. The northern frontiers of Roman Britain are no exception and there has always been an element of periodising site types. Early accounts drew a distinction between the 'wobbly lines' of native works and the rigid Roman remains (Jobey 1970a, p. 76) (see for example Crawford 1928, 1939; Crawford & Keiller 1928; Miller *et al.* 1952; St Joseph 1951, 1955, 1958, 1961, 1965a, 1965b, 1965c, 1969, 1973, 1977, 1978). The problems with this clear cut distinction soon became apparent, as a number of sites of square and rectilinear shape were of 'native' origin. Given typical diffusionist arguments before the early half of the 20th Century these sites were seen to be of the Roman period as it was assumed that the local 'natives' copied the style of the Roman forts and camps (Kilbride-Jones 1938a). Excavations carried out by George Jobey in Northumberland and Co. Durham were to reappraise this view (Haselgrove & Allon 1982; Jobey 1962, 1963, 1970b, 1973a, 1973b, 1977, 1978b, 1982b). A number of these rectilinear enclosures produced evidence of being pre-Roman in origin (Jobey 1962) and the idea of a Roman influence for morphology was thoroughly discounted (Jobey 1970a, pp. 76-9; Maxwell 1970). This was later supported by the excavation at West House, Coxhoe, which seemed to have been abandoned before the Roman period (Haselgrove & Allon 1982). However, the argument for them belonging solely to the Roman period has persisted (McCarthy 2000, p. 136), (see Bewley 1994; Jones &

Walker 1983). Rectilinear enclosures clearly have their origins in the Middle to Late Iron Age in the north of Britain (Haselgrove & Allon 1982; Jobey 1962, 1970a) and continued through to the late if not post-Roman period (Jobey 1970a; Maxwell 1970). They are also very common in the northeast of England (Haselgrove 1999; Hingley 2004, pp. 340-1). While the temporal currency of this type is fairly broad there have been specific trends identified in excavations of these sites, probably explaining the persisting tendency to see them as solely of Roman date. A number of these sites have produced evidence for pre-Roman occupation: Fishers Road West, Port Seton (Haselgrove & McCullagh 2000), Rispain Camp (Haggarty & Haggarty 1983), Carronbridge (Johnston 1994), and West House, Coxhoe (Haselgrove & Allon 1982), and the vast majority of them have produced evidence for occupation, some even of construction in the Early Roman period (see Figure 4-2). These comprise most of the examples from Northumberland and Cumbria (Higham & Jones 1983), and consist of many of the excavated Scottish examples including: Brixwold (Crone & O'Sullivan 1997), Rispain Camp (Haggarty & Haggarty 1983), Carronbridge (Johnston 1994), and Lilliesleaf (Clarke & Wise 1998) which have all produced dating evidence for the early Roman period, though the artefactual dating is problematic as it is based exclusively on Roman finds. Many of these rectilinear enclosures were built over earlier rectilinear palisade enclosures which seem to date to the Middle Iron Age and Late Iron Age (Haselgrove & Allon 1982, p. 49; RCAHMS 1997, pp. 154-5). So while the earth built enclosures have a stronger association with the Roman period, their precursors in form are significantly earlier. This completely invalidates the idea that the Roman presence would have been an influence for this morphological form but does not invalidate them from discussions of settlement distribution during the Roman period as all produce either late Iron Age or early Roman dates from the enclosed phase. This has allowed Gregory to create a loose date sequence for morphological types in southern Scotland (see Figure 4-3).

This broad time range for circular enclosures in southern Scotland effectively means that many of the non-excavated examples could date from the late Bronze Age through to the beginning of the early medieval period. Individual examples are further discussed in relation to their specific study area and more refined models are suggested for these areas. This review of sites suggests that generally there were tighter chronological periods when these features were more likely to be constructed (i.e. the middle to late Iron Age). Yet as a broad homogenised group, circular, and to a lesser extent rectilinear

enclosures, represent a 'fuzzy' temporal and generic Iron Age settlement 'backdrop.' This is in a sense an artificial construct in that a broad temporal approach is taken in regard to understanding and modelling settlement distribution. While such an approach has its limitations in regard to exploring the minutia of Iron Age settlement diversity it does allow a fuller understanding of the density of settlement and land use during the period. This approach also allows for a more complex and detailed understanding of the impact of Roman occupation on the area, so that rather than studying individual examples within the archaeological record, a more holistic and encompassing assessment could be made.

The question still remains as to why these enclosures would have been morphologically different than the circular enclosures which have a considerably longer currency. If they were based on the earlier rectilinear palisades, this still does not answer the question of why there is a change in morphology but rather pushes the timeframe for the question back into the middle Iron Age. It is clearly not a case of one type replacing another as the circular example at Woodend (Banks 2000) was constructed during the Roman period. Topography could be a reasonable explanation, circular on uplands and rectilinear on the flat agricultural land, but there are numerous examples of circular sites in these areas. Examinations relating to function are equally unsatisfactory as the sites often provide evidence for a mixed agricultural and pastoral economy (Haselgrove & Allon 1982, pp. 44-5).

Given the timeframes for these features, 'cultural' explanations should not be dismissed, but currently there is not a satisfactory method to determine how to address this issue. A more positive way to address this issue would be to consider time depth, the idea of memory, and vestiges of past landscapes and intensification of agriculture in the Middle to Late Iron Age in the past. Rather than trying to separate each archaeological period, it is important to remember that each phase is constituted within the vestiges of the past (Lucas 2005). If the types of physical remains are considered e.g. earlier enclosures and linear earthworks, in the form of ditches and banks, these later settlement shapes may have been dictated by such features. Examples can be found of circular enclosures abutting linear features, so without proper dating evidence to show that the circular enclosure are earlier in these cases such an argument might not be supportable.[35] Linear

[35] This idea were suggested to me by Richard Hingley who also pointed out the problems associated with it (*pers comm.*).

earthworks may only be part of the issue as there would have been other factors impacting settlement layout. Potentially one of the more interesting is the intensification of agriculture. Iron Age agriculture was based around cord rig plots, an earlier form of rig cultivation, which like the later rig and furrow was laid out in linear strips. Could areas which have been subject to intense agriculture have necessitated a shift in perception within the local population where new enclosure was constructed in a linear fashion to conform with the spatial layout of existing rig cultivation (see Haselgrove & Allon 1982, p. 45)? This would account for both the fact that rectilinear enclosures are primarily a late prehistoric feature and address why circular enclosure continued to be constructed, as the form would have been dependent on the circumstances of the local landscape (see Figure 4-4 for a hypothetical model of enclosure development and see Figure 4-5 for a comparison between settlement distribution, cord rig and linear earthworks).

Whatever the reasons for rectilinear enclosure development they are still a useful site type in that while not as specific as some have forwarded, they still have a fairly precise period of construction and occupation. Given that this occurred before the Roman occupation and continues on through the Roman period, it makes such sites extremely useful in discussions of demography and settlement distribution during the Roman period, though circular enclosure and opens settlements should not be ignored as there is evidence which supports their continued use during the Roman period (Hingley 2004) (see section 8.3.5, 8.3.7 for a discussion of enclosures and section 5.4.2 for a discussion of open settlement).

4.6 Conclusion

Discussions of 'time' of the northern frontiers of Roman Britain have been shown as similar to those which are occurring within general archaeology, but they are further complicated by the traditional tendency to understand the Roman evidence through a historical timeframe and the Roman Iron Age evidence within a prehistoric model. As discussed in Chapter 2 this is a legacy of research strategies. However, both have their advantages and disadvantages, and rather than force one model to conform to the other there should be a flexible approach which allows the information to be considered in relation to the questions being asked. This may be addressed by engaging further with the concept of time in regard to how archaeological time is constituted and understood. I

have suggested a model which utilises the idea of using memory as a metaphorical model for time. In this model the often problematic concept of broad chronology can be minimised, rather than being counter to how time is experienced and understood, as has been portrayed (Thomas 1996). Chronologies might be constructed in much the same way that past memories are processed and understood. Displaying this kind of time within GIS is a rather complicated matter, as timemaps are only as good as the archaeological data which is being studied (Johnson 1999a), though theoretically it is possible to create relatively sophisticated time models within GIS (Raper 2000). It is through a combination of theoretically informed and technological driven development that many of these problems could be addressed within archaeology

5 Dealing with the Data: Practical and Theoretical Considerations

5.1 Introduction

The purpose of this chapter is to introduce the type of sites and materials discussed within each of the case study chapters. In doing so, possible biases in the data, and theoretical problems with data interpretation, will be reviewed. The methods employed will also be briefly introduced. As previously addressed in Chapter 2, there has been bias in how the Roman military and its occupation of northern Britain have been studied. In order to rectify this problem, discussion in the following chapters will explore how spatial analysis conducted with GIS can address many of these issues. In section 1.8 and 1.8.1, an approach was suggested which involves the analysis of specific study areas to deal with the large amounts of data covering an extensive region and number of sites. Given the discrepant nature of earlier investigations much of the data discussed is partial; this presents problems for interpretation and highlights issues concerning data quality which is discussed further in this chapter. To begin to fully understand the holistic impact of the Roman presence in northern Britain, it is necessary to attempt an overall synthesis of the study area. While an argument could be made for such a study to be conducted after further information has been collected in the field, it begs the question of how much information is needed to conduct such a study, given that archaeological data is always partial in nature. If such a line of reasoning is followed, one will always be waiting for a clearer picture to emerge. Syntheses play an important role in compiling data, highlighting both the potential and limitations of the current state of archaeological understanding in any given region (Fincham 2002; Haselgrove *et al.* 2001; Lucas 2003). In this regard they can play a pivotal role in addressing areas for future investigation.

To achieve continuity, each study area will be approached in a broadly uniform manner. Many of the same techniques will be utilised and when these approaches differ, the reasons and justifications for this will be made apparent. Given that all of the study areas contain large data samples and spatial elements, GIS based spatial analysis is required to detect the trends which would not have otherwise been visible to the naked

eye. Indeed the human eye is not always entirely reliable in discerning spatial trends as patterns and it can be argued that they are not statistically valid. In order to check the reliability of the spatial patterns a number of statistical tests were carried out. These tests will be briefly discussed in the text, but a fuller discussion can be found in the appendices.[36] The majority of the spatial analysis of data has been conducted with the aid of GIS which have presented most of the surfaces as planar in nature. Exceptions to this are the visibility and anisotropic cost surface studies. While planar surfaces have their limitations or drawbacks, namely an unnatural portrayal of the topography, they will be shown in this study to make little negative impact on the larger scale studies. Planar surfaces also have certain advantages in that they are less time consuming to construct and require less memory and processing power to analyse, allowing for larger scale studies to be conducted. The usefulness of this approach has been highlighted in other spatial studies carried out (see Lucas 2003 for a recent example). Before any further discussion of the techniques employed are described, it is necessary to discuss the data and how they have been classified. This will be followed by a discussion of the main methods utilised by the study. While discussion of both survey data and methodology deal with the more practical aspects of interpreting archaeological remains from the region, it also includes material culture and lends itself to a discussion of the theoretical implications raised by the study of such artefacts.

5.2 General Discussion of the Study area Data

5.2.1 Introduction

All of the data was inputed into separate Access databases for each study area. Given the multiple data sources and the specific issues to be addressed, it was necessary to create an entirely new database schema rather than using an existing one from the NMR in Scotland. The main source for the study areas in present day Scotland came from the RCAHMS database. This was supplemented by a review of relevant published material. While the RCAHMS material is available in an existing database, the format was unsuitable for the questions asked in this study.[37] In order to ensure that as little as

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[36] I have decided against presenting this material in the main text as it will hamper the style of the overall thesis with overly technical discussions.

[37] The RCAHMS database is primarily focused on site management, as one would expect, and contains information on location as well as site visitation notes, some excavation notes, details for further reading and list of relevant material and documents held on site. While both site and find classification are sometimes discussed, it is normally only covered in a basic way with less emphasis placed on interpretation. This is entirely understandable give the purpose of the database combined with the fact that interpretation is often subjective and liable to change over time.

possible was omitted, every entry in the RCAHMS database which fell within the confines of the study areas was reviewed; each of these study areas contained over 4,000 entries in the NMR database. They were then highlighted as either relevant or irrelevant to the study. Those deemed relevant were then further classified into either landscape features or finds data and then further categorised by type in order to address issues relevant to the questions being asked (as discussed in 5.4 and 5.5.4). Wise (2000, p. 95) has suggested a keyword search of the NMR database as a viable method for site survey, and while it would have been a useful time saving method, it was felt that the unreliability of a keyword application ruled such an approach unfeasible. The number of initial entries which remained after this process and the amount of each classification in each of the study areas can be found in Appendix I p. 472.

5.2.2 Surveys:

All of the three areas have had surveys conducted in recent years, although they vary in extent and in what was examined. The central area of the Newstead region was covered by a project conducted by Bradford University and the Borders County Council in the early 1990s. This project has yet to be published, so the bulk of the information is unavailable, although interim reports and short reviews in *Discovery and Excavation in Scotland* have been published (see 6.2.1). The Newstead study area discussed here is considerably larger than the Bradford survey and many of the factors discussed concern a larger scale so the information made available in the interim reports has been sufficient. While the survey and excavation when fully published will be of interest, it is not necessary or integral to the outcome of this study. The Dumfries survey, conducted by the RCAHMS, almost covers the Burnswark study area in its entirety (RCAHMS 1997) and has been a valuable source of information as it includes many detailed site plans aiding the settlement classification (see 8.2.1). The Inveresk study area has also had a small survey conducted in the vicinity of Roman remains and a suspected Roman Iron Age settlement (see 7.2). The full impact and extent of the survey is discussed in relation to each case study in the relevant chapters.

5.2.3 Settlement Data

The settlement data consisted of the settlement evidence which was indicative of the Iron Age and Roman period and excluded any data which could be attributed to later periods. Those which were unknown in origin and could not be positively excluded

from the study were included. Information was compiled about their location, name, national record number, whether they have been excavated and when, and all known published material that discusses them. They were then further classified by a broad type relating to their morphology: rectilinear, circular, unenclosed, other, or no morphological information (see 5.4 for the discussion of this classification system). If a settlement had been excavated or had produced finds, this information was recorded allowing for a period of occupation to be suggested. The majority of the settlement evidence from the three study areas are from crop-mark evidence, but significant contributions have occurred from the identification of upstanding remains in the form of hut circles and enclosure banks, and ditches. The recent increase in developer funded archaeology has also contributed to the discovery of sites through expanded excavation and geophysical surveys. The study is heavily dependent on aerial photography, highlighting the importance of this resource to an understanding of archaeological settlement distribution in Scotland.

5.2.4 Aerial Photography and Factors Affecting Cropmark Distributions

Aerial photographs, when available, were utilised in determining the settlement morphology (see 5.4.2). The photographs are housed at the RCAHMS NMR located at Sinclair House in Edinburgh. Each of the study areas produced a prolific number of photographs, sometimes multiple ones of the same feature. Given the considerable debate surrounding the classification of settlement types, it was felt that it would be best to put forward simple definitions and to limit the categories. In this case it seemed better to 'lump' the results rather than 'split' them into overly refined categories. This method addressed the often debatable nature of these enclosure shapes where there is no broadly held consensus as to what the morphology relates to, or how they are understood either temporally or socially.

When assessing settlement patterns where the majority of sites have been identified by aerial photographs, it is necessary to address possible bias. This bias relates to the reliability of the sample, a two-part issue highlighted by Bewley (1994). First we must ask, "has there been adequate systematic aerial survey to obtain a representative sample"? and, second, "do the differential distributions on different soils represent either a selective agricultural practice in the past, or merely a higher potential of crop marking in certain soil"? (Bewley 1994, p. 21). These factors can be divided into four

categories, namely; weather conditions, flight patterns, modern land use, and soil/geological factors. The first relates to the years during which the flights were undertaken which has an effect on how visible the crop marks are. Given the long history of aerial photography, it is unnecessary to go into extensive detail on this issue, but the other three factors can be discussed in relation to how they impact the study areas.

The second issue concerns that of flight patterns that have the potential to bias crop mark distribution patterns if they have not been conducted in an extensively controlled manner. An example of this would be the block flying described by Bewley (1994, p. 21) and utilised by Barri Jones in the Dumfries region. Flight patterns are further complicated when considering crop marks from southern Scotland given that many historic surveys were conducted with the aim of locating new Roman features; as such known 'Roman' routes were heavily flown. There was also a tendency to fly established 'honey pots' or locales which have traditionally provided crop marks (Cowley 2002; Hanson 2005). This correlation between flight patterns and recorded crop marks in Scotland is fairly noticeable when viewed on a large scale (see Figure 5-1). Given the nature of the techniques used in this study such an observation could invalidate many of the main conclusions, which means that the extent of flying in each area needs to be considered. Fortunately all of the three study areas have been subjected to extensive survey and many of these initial biases have been rectified by systematic coverage. The Dumfries and Inveresk areas are both notable in the extensive amount of coverage they have received.

Flight patterns still have the potential to bias research and therefore should remain an area of interest for future studies in the south of Scotland. However, there is an increasing realisation that even with the inherent biases caused by flight patterns, they need not adversely affect research as it has been noted that a number of areas still produce crop mark clustering which does not appear to be the by-product of aerial survey (Moore 2007a, p. 44).

The third issue of land use is more complicated than flight patterns in relation to crop mark distributions. The distributions in all three of the study areas have been affected in different ways by post-Roman land use. The impact on the post-Roman landscape can effectively be divided into two broad phases; pre-modern land use and modern land use.

Pre-modern land use can be further divided into a number of more specific phases. The first is medieval land use, which is characterised in the UK with a retreat from arable agriculture in areas of moorland upland and chalk downland which led to a greater survival of earlier features (Taylor 1972; Williamson 1998). Those areas best suited to agriculture saw the intensification of land use which effectively erased much of the pre-medieval landscape. Taylor (1972) refers to these areas as 'zones of destruction' and 'zones of preservation', noting that there was a strong north-south and east-west divide, with the north and west having greater survival rates of archaeological remains. This is due to not only different agricultural regimes but also different population factors, with less land left as 'waste' in the south and east (Taylor 1972; Williamson 1998 p.7). The second pre-modern phase or factor effecting the survival of the archaeological landscape occurs in the late medieval though to early industrial period and deals specifically with the process of enclosure. The post medieval re-planning of the landscape reorganised large sections of the British landscape and was again primarily focused on the south and east (Williamson 1998 p.8). Yet in Scotland it should be noted that much of the pre-improvement landscape was lost in lowland regions, the victim of a new individual and capitalist way of organising the agricultural land (Dalglish 2003; Whyte 1998). This improvement of landscape was followed by modern intensification of agriculture; the last substantial shift in landscape management in the UK, which occurred from the 1940s onward and involved the alteration of the landscape due to increased utilisation of mechanised agrarian methods (Williamson 1998 p.13). These historic processes had an archaeological impact on all of the study areas, though there are a few specific regions which were impacted by more particular processes. The Inveresk area has been subject to extensive urban development which has destroyed sites and excluded large areas from the possibilities of crop mark analysis (see 7.2). The Dumfries region contains a significant amount of upland landscape, which has not been subject to modern agriculture or post medieval land use, aside for limited pasture, and has produced little crop mark evidence. The outcome of these processes is that much of the surviving archaeological remains are somewhat visible as upstanding remains. This is why this region distribution is so heavily influence by the survival of upstanding remains or Taylor's (1972) 'zones of preservation'. The region has also been subject to extensive forestry which has further added to the archaeological invisibility of certain areas (see 8.2.1).

The final category concerns geological features which can be divided into solid, drift geology, and soil types. Of these drift geology and soil types seem to have the largest impact on crop mark distributions (Bewley 1994; Evans & Jones 1975). The impact of soil types on the crop mark record of the region is in many ways the easiest of these factors to analyse in that expensive digital data on soil classification is available for Scotland. It has long been noted that certain soil types produce a greater number of crop marks (Bewley 1994, 1999; Bewley & Raczkowski 2002; Bowen & Butler 1960; Bradford 1957; Evans 2007; Evans & Jones 1975, 1977; Hanson 2005; Mills 2005; Riley 1943, 1987; St Joseph 1965b, 1965c; Stoertz 1997; Webster & Hobley 1965; Wilson 1982). However, there has been a tendency to view this in terms of land use, as the soils which often produce the largest number of crop marks are the types which are most heavily cultivated (Bewley 1994, pp. 21-39). As Bewley (1994, p. 21) has noted this creates a circular argument where better soils for agriculture produce more settlement evidence because they were more attractive for prehistoric settlement. This interpretation though has been shown to be questionable, in that some areas do not produce a significant amount of visible crop marks but were settled during the prehistoric period. Clays are a prime example of this; because of water retention, and its subsequent slow release, crop marks often fail to appear as the conditions most favourable to their development is provided by sandy and loamy soil (Evans 2007; Mills 2005). Given the impact that such factors can have on the crop mark distribution, it is necessary to address this issue (see Appendix VI Drift geology and enclosure distribution). The Dumfries region has already been adequately reviewed by Gregory (1998), who found that different crop mark types were abundant on different soil classifications (see Figure 5-2). Curvilinear enclosures, both single and multivallate, occurred most often on Ettrick soils (a non calcareous gley with poor drainage). Palisade enclosures occur most often on Ettrick and Alluvium. Rectilinear enclosures have a fairly even distribution but this is complicated by the fact that Gregory (1998) conducted few statistical tests on his data. The other finding of note is that 'hut circles' mostly occur on peat, but given that peat is most common in the upland areas, this will most likely be due to the survival rates of such features in the uplands which have not been ploughed. The analysis of the impact of drift geology on the study areas is covered in Appendix VI. While drift geology should be considered, it does not necessarily need to complicate or invalidate any study of distribution patterns based largely on crop marks assuming that the impact is understood and not fundamental.

5.3 Methodology: Settlement and Finds Spatial Analysis

5.3.1 Introduction

This section details the method of spatial distribution analysis employed for each of the study areas. As each of the study area chapters contain a section discussing the results of the spatial analysis carried out it is not necessary to discuss them here. The purpose of the spatial analysis was to analyse the relationships between site classifications and other cultural features, most importantly Roman sites and roads. In order to achieve this, a number of methods have been utilised. The first is spatial analysis of the settlement patterns, followed by an analysis of the spatial relationship between these settlement patterns, Roman finds in non-Roman contexts, and Roman infrastructure. Viewshed analysis was also carried out on prominent features in all three study areas. In addition to these methods the Newstead region was subjected to an anisotropic cost surface analysis. These methods were specifically chosen to illuminate discussion on colonial interaction between the Roman garrisons and local populations. The techniques involved in each of these sections are reviewed in the relevant appendices, and the results will be discussed in the relevant sections of the study areas.

5.3.2 Spatial Analysis of Settlement Patterns

Spatial analysis of the settlement or enclosure distributions was based primarily on 'point pattern' analyses. They involved a number of spatial techniques whose purpose was to determine if the spatial dispersions were random or had any form of clustering. Quadrat analysis was carried out on each of the type distributions. This involved laying a grid over the area and seeing how many points occurred in each area. The results were chi-squared tested to see if they were significant. Nearest neighbour, k-means analysis, and kernel smoothing were also utilised to test for clusters as each have their own particular advantages. Further discussion of the techniques and results can be found in Appendix II.

5.3.3 Analysis of Spatial Relationship Between Roman Infrastructure, Settlement Patterns and Roman Finds

To test if the relationship between settlements, finds distributions and Roman infrastructure is random, or has a discernable pattern, a spatial analysis was carried out.

In order to understand the spatial relationship between 'Roman' features, local settlement evidence and the distribution of 'Roman' finds in the area, a new method was developed. This method created buffers around the 'Roman' infrastructure at 250 metre intervals. Within each buffer, the number of sites and finds were recorded, as well as the amount of land area covered by the buffer. These results were then compared with the expected quantities and statistically tested with the Kolmogorov-Smirnov method which is best suited for comparing two samples. The results of all three study areas for the settlement evidence are displayed in Appendix II and the results for the 'Roman' finds are found in Appendix III, and discussed in the relevant study area chapters..

5.3.4 Anisotropic Cost Surfaces

In the Newstead study area, an anisotropic cost surface was created around the fort to study travel time from the fort to the surrounding areas. The purpose of this was to factor the element of time into the discussion, as well as to address the practical limits of controlling a physical landscape. The anisotropic cost surfaces were created with Tobler's hiking function (Tobler 1993) and measured the amount of time it would take to cross a specific distance. This study was only conducted in the Newstead study area to highlight the possibilities and benefits this method provides. This method and existing technologies need further development before its effect can be fully appreciated. The technical aspects of the method are discussed in Appendix IV, and the results are discussed in Chapter 6.

5.3.5 Viewshed Analysis

Viewshed analysis was carried out to measure if the visibility of these sites played a role with the distribution of settlements and finds in the region. Viewsheds were conducted on the Roman forts, large hillfort sites and sites which were rich in material culture. Viewsheds were created for these sites and the number of settlements and finds were then analysed according to whether they then occurred within the visible or non-visible areas (up to a 5km buffer). This was then tested with the chi-squared test to see if the results were statistically significant.

5.4 Site Classification

5.4.1 Introduction

The following section will discuss the classification systems employed for this study by briefly introducing the site types. With regard to the Roman sites this is fairly standard and non-contentious as the classification of these features is not regarded to be problematic. Non-Roman crop marks are rather more complicated as there are competing methods for classifying them and there is no universally accepted system for interpreting their morphology. To address this issue, the following section will highlight the methods utilised within this study in an attempt to clarify the results found in the discussion chapters.

5.4.2 Local Settlement

Classifying crop marks is by no means a problem free process and relies heavily on personal interpretation. There have been a number of attempts to clarify the process and establish a common system and terminology (Bewley 1994, 1999; Edis *et al.* 1989; Palmer 1984; Riley 1987; Stoertz 1997; Whimster 1989; Wilson 1982). Like all classification systems, the grouping of morphological types is defined by multiple criteria and is susceptible to systems which either 'lump' or 'split' perceived traits into broad or specific categories. Stoertz's (1997) study of the Yorkshire Wolds is an example of a system which 'lumps' similar features into broad categories, while at the opposite end Arbousse Bastide (2000) creates morphological categories which sometimes contain only one example. Between these two is Bewley's (1994) classification of enclosures of the Solway plain that are divided into categories such as: circular, D-shaped, oval, polygonal, rectangular, sub-rectangular and square. While each technique has its advantages and disadvantages, it was felt that broader categories would be more useful to this study given that many of the elements of separation in the more specific models might have neither a temporal or cultural relevance, but rather be a by-product of settlement time depth or topographical variability. A good example of this would be multivallate circular enclosures, which could either be the result of a complex multivallate single phase construction, or multiple phase single enclosures. Without adequate excavation it is often hard to differentiate between the two. The classification approach which is adopted in this study is based on definitions and classification developed by Stoertz (1997), as it was felt that this approach was the most flexible, adaptable and useful system. The three main types of features, open settlement,

circular enclosures and rectilinear enclosures are defined below. The final counts for each of these features can be found in Appendix I.

Open settlement:

> Open settlements consist of a number of groups of roundhouses or 'hut' platforms which are not associated with an enclosure or are not contemporaneous with an enclosed phase.

Unenclosed open settlement has had a long history of archaeological discussion (Gates 1983; Halliday 1985; Hingley 2004; Jobey 1985; Macinnes 1982). Open settlements would at first seem to be rare in the three study areas, Appendix I, yet this is most likely a problem of site visibility rather than an actual absence of the features. Without an accompanying enclosure ditch, round houses are often hard to discern on aerial photographs (Hingley 2004, p. 341; McCarthy 2000, p. 136). Combine this with destruction caused by ploughing and they are difficult to locate on low elevation farmed soils. Such sites are more likely to be found through excavation rather than crop marks. The other problem is that many settlements go through phases of enclosed and unenclosed occupation which can only be identified through occupation or if features overlie one another (Haselgrove & McCullagh 2000; Hingley 2004). The difficulty of considering open settlement is further discussed in Chapter 7.

Circular enclosures:

> Curvilinear features are enclosed or partly enclosed areas or structures which are rounded in plan, and are defined by one or more ditches or bank, which may have been either continuous or discontinuous. (Stoertz 1997, p. 13)

This is by far the most common enclosure feature within all three study areas, and it also has the longest currency of construction in the prehistoric period which further complicates its temporal usefulness in settlement distribution studies. The lack of precise dating for these features has been commented on earlier (Chapter 4), and as such the circular distribution could be taken to represent a broad model of the Iron Age settlement pattern.

Rectilinear enclosures:

> Rectilinear features are enclosed areas with straight sides and sharp or rounded corners, generally square or rectangular in plan, and defined by one or more ditches or bank. (Stoertz 1997, p. 15)

Less common in the study areas than circular enclosures, rectilinear enclosures are often easier to isolate as crop marks but are also more problematic in categorising as their definition is far more specific.

Traditional site types:

Settlement types in southern Scotland have had a long history of classification, in addition to the cropmark types already identified, a number of divisions have been proposed. The most discussed type of settlement in the north has been the classification of the hillfort, with Feachem (1966) proposing regional variation in the construction and size of hillforts. These categories related largely to Feachem's mapping of Iron Age tribal regions in an attempt to model Piggott's (1966) scheme for the Scottish Iron Age in the settlement record. Distinction was drawn between larger hillforts and smaller homesteads, and enclosed settlement, which was also adopted by the RCAHMS when sites were classified for their inventories of southern Scotland (Feachem 1965, 1966; RCAHMS 1956, 1967, 1978). This system was later modified by George Jobey, whose survey work focused on the classification of palisaded enclosures, hill-forts, scooped settlement and stone-walled homesteads and settlements (Jobey 1966a). This division was both regional, with scooped settlement showing a westward bias compared with the eastern preference of the stone-walled type, and temporal with a shift from the palisade to the stone-walled occurring during the late Iron Age. Hill's (1982a, 1982b) excavations at Broxmouth were to bring this model into question and along with it the assumption that settlement type could be securely used as a chronological indicator. In order to address the chronological problem proposed by this shift away from settlement type, Hill (1982b) suggested revisiting the classification of northern roundhouses.

House form analysis:

While settlement enclosure morphology has been often problematic in determining chronology, which combined with the lack of diagnostic finds, has created a rather negative view of refining Iron Age chronologies in southern Scotland, there have been other attempts to circumvent this lack of temporal refinement. The most widely discussed has been the structural classification of house types within the Tyne/Forth province (Feachem 1965; Hill 1982b, 1982c, 1984; Macinnes 1982b; RCAMS 1956, 1967, 1978). This initial round house classification system was based on a number of categories of round house types, consisting of; 'post-ring' houses, 'ring-ditch' houses,

'ring-groove' houses, houses of an advanced type, and 'stone-built' houses (Feachem 1965 and for a critique see Hill 1982c). The development of these house types was seen in simple chronological and cultural terms, with the less complex forms having been seen as chronologically earlier, and with the stone build houses seen as influenced by the Roman presence (Feachem 1956; RCHAMS 1956, 1967). As Hill (1982c) notes, this early system had a number of limitations:

> The faults of the 1965 classification system speak for themselves. Post-rings are a structural component, ring-grooves are a construction technique, ring-ditches are a design feature, and stone walling is a fabric choice: housing of advanced design presupposes an understanding of architectural development which has yet to be elucidated. If a taxonomic system is to work, the subjects must be tested against a single set of criteria (Hill 1982c, p. 27).

Hill's solution was to simplify the classification into two broad types, stone walled or 'Votidinian' house and the 'ring-ditch' house (Hill 1982c). The 'ring-ditch' type was seen as an earlier precursor of the 'Votidinian' type, as both had similar spatial layouts and at Broxmouth the 'Votidinian' type overlay examples of the 'ring-ditch' type (Hill 1982b; 1982c). While the earlier timber buildings has a longer currency of use, the stone lined 'Votidinian' house type seemed to come into use in the late Iron Age in the immediate pre-Roman or Roman period and go out of use sometime in the late 2nd century. It was this phase of abandonment that led Hill to speculate that large scale desertion occurred in the 2nd century.

Landscapes of desertion:

The concept of landscape desertion in southern Scotland has been the subject of continued debate (see Armit 1999a; Hanson 2004, pp. 143-148; Hill 1982b, pp. 9-11; Haliday 2006, pp. 15-17). As Hanson (2006) notes the problem settlement desertion is primarily one of archaeological visibility, relating to the over reliance on Roman material culture. The Broxmouth excavations (Hill 1982a, 1982b) found a limited amount of material that was datable to the 2nd century; this was made up of largely Roman material, which was found embedded in the highest layers. Hill argued that if the settlement had continued after the 2nd century the Roman material would have been more deeply embedded within the structural sequence, a view that has been supported by Haliday (2006)[38]. While there are only a limited number of sites that have been

[38] It should be noted that Peter Hill moved into Iron Age archaeology from studying clearance settlements in Scotland; this may have been why he choose to view Iron Age settlements from the perspective of abandonment and sought to find a single process which could be tied to this desertion (Strat Haliday *pers. comm.*).

excavated in the region which contains material which dates beyond the 2nd century, there are other possible reasons to consider for this lack of later Roman material which need not conjure models of population removal or abandonment horizons to explain. Hanson (2006) has noted the general lack of post 2nd century material in the north and the conflicting information from environmental evidence which could create the archaeological illusion of abandonment. Though the recent carbon dates from Northumbria which show a possible phase of abandonment in the 2nd century may force a reconsideration of the evidence from southern Scotland (Nick Hodgeson *pers. comm.*).

5.4.3 Roman Forts, Fortlets, Camps and Roads

The classification of Roman remains in Scotland has a long history (Gordon 1727; Roy 1793). The Roman features of Scotland can be classified into the following broad categories; forts, fortlets, camps, roads and *vici,* for which there is a long established tradition.

Roman forts:

It is important to note that although a distinguished type, Roman forts vary in size, layout, and sometimes shape. This is due to the fact that Roman forts were build at different times, for different purposes, and by different military units (Bidwell 1997; Breeze 2002b; Bruce *et al.* 2006). Most are identifiable by their characteristic playing card shape, the layout of their internal buildings and their four main gateways. These features make them easily recognised on the ground and especially from the air. They differ from camps in that they have a permanency of timber or stone construction and a longer occupation.

Roman fortlet:

Fortlets are small outposts of soldiers typically housing a century with only one gate. They are common in southern Scotland, especially in the southwest (Breeze 1974, 1977a). Like forts they are easy to identify from the air, but unlike forts they are sometimes confused with rectilinear enclosures (e.g. Greene 1978; Jobey 1971b), yet this is not such a common problem as it once was given a greater understanding of enclosure morphology.

Roman camps:

Roman camps, like forts, are highly visible due to their ditch and bank, size and typical shape. However there are many discernable distinctions that differentiate camps from forts. Rather than permanent gates, often with substantial gatehouses, access to the camps are defended by either *titulum* or *clavicula,* earthen banks situated in front of the entrances (Welfare & Swan 1995). The camps vary in size due to the number of soldiers present, both the size and nature of the gate defences have allowed certain camps to be associated with dated military campaigns (Breeze 2006).

An important fact to note in terms of this study is the high visibility of Roman features in aerial photographs, especially forts and camps (Jones 2005; Maxwell 2005). This has led to these features being highly represented within the archaeological record. Roads are rather more problematic given that many of the Roman roads have been built over in later periods (Jones 2005; Margary 1967). In this study the road data was digitised from the comprehensive *An atlas of Roman Britain* (Jones & Mattingly 1990), which detailed all known and confirmed roads in the region. There are of course Roman roads in the region which have yet to be discovered and as such have been overlooked in the digitised plans. Initially it was though that this could be compensated for by carrying out a least cost path analysis between known Roman forts with the assumption that they would possibly mirror Roman road locations. This analysis was carried out as part of this research. H owever, this technique was abandoned as it soon became apparent that the known Roman roads in the study areas used as a control did not adhere to these least cost paths.

5.4.4 Roman *Vici*

Roman *vici* are extramural settlements attached to Roman forts (Sommer 1984, 1988, 1991, 1997, 1999a, 1999b, 2006). They are normally made up of strip buildings which line the roads going into the forts and growing outward from them. Many of the examples in the north are found within fort annexes which could be taken to indicate that they were defended. Once considered to be relatively rare north of Hadrian's Wall, they have since been identified at a number of sites, for example at Housesteads, Wallsend and Newstead (Sommer 1984, 2006). There has long been speculation about the relationship between the *vici*, forts and local settlement. In addition to this there is a significant debate about who actually populated the *vici,* if they were locals from the immediate fort environs or camp followers or traders from elsewhere in the Empire

(Flynt 2005, p. 128; Gardner 2007b; James 2001; Salway 1965; Sommer 1984, 1999b, 2006; Wells 2005). While the impact of Roman forts has been discussed in depth (Breeze 1985, 1990), there has been a disparity in the discussion between the roles and impact of the forts as compared to the *vici*. At the heart of these questions are assumptions about ethnicity and the nature of interaction between the Roman garrison and the local populations. As such it is necessary to discuss *vici* in greater depth than the other Roman features.

In addressing the question of the relationship between local communities and the Roman military, *vici* becomes problematic. While over the last few decades both our knowledge of *vici* and local native settlement has increased dramatically, what can be stated about any relationship between the inhabitants of military *vici* and the local native settlement falls largely within the realms of speculation. Therefore many of the questions surrounding this issue have unfortunately remained unanswered. This section will focus on three main issues; first, who populated the military *vici* and what evidence is there of 'local' groups living in the *vici*? Second, what was the role of the *vici* in the exchange of material with the 'native' populations? Here we will briefly examine the role of *vici* in colonization of the north. Third, what is the potential of *vici* to broaden our understanding of the Roman military, frontier culture, and ethnicity?

Like all discussions of ethnicity in the northern frontiers, the early accounts of who populated the *vici* depended very much on the classification of material artefacts. If we examine the work of James Curle(1913) in reference to native objects on Roman forts, he stated:

> Obviously the gradual lengthening of the military roads as the frontier expanded made the garrisons more dependent on such supplies as the province could furnish, and most of the objects themselves must have been brought by the native population gathered in the annexes beside the forts, some of whom not improbably were held in a state of serfdom, employed to labour the land, to sink the wells, to dig the pits and the ditches. (1913, p. 114).

Curle also argued that many of these natives would have been women; a claim based on the presence of shoes and other items: "That they were native women we may infer from weaving combs, the ornaments, the little trinkets which they left for us to find, because these do not fall within the Roman category" (Curle 1913). Curle clearly saw the annex as being primarily populated by local natives, supplemented by Gaulish

traders to explain the presence of continental pottery. Yet this reflects his need to explain the presence of certain types of material by the presence of the respective cultural group, which was very much in keeping with archaeological views of the time. In addition, such arguments may also be a product of the strict division drawn between civil and military societies in Britain during Curle's lifetime.

It was Salway (1965) who conducted the first in-depth study of the civilian population of the north, highlighting the immigrant origins of many of the inhabitants of *vici*. He favoured the idea of traders moving to the area to both supply the military, and to trade with the natives. Work following on from this has favoured the idea of immigrant inhabitants for the *vici*. Both Sommer (1984) and Higham (1989) have argued almost exclusively for an immigrant population. Not only has our knowledge of *vici* increased in terms of the number of known sites, but also by the extent of how many of these sites have been revealed through the application of geophysics (Sommer 2006). They can be seen as a 'natural' occurrence, connected intimately with the forts, supplying services and taking advantage of the disposable income of the army garrison (Gardner 2007b, p. 49; James 2001; Sommer 1984, 1988). Sommer (1999b) has argued from evidence in upper Germany, as well as Britain, that the *vici* were occupied very early in relation to the forts, supporting the idea of camp followers instigating their construction. He has also used evidence from the Classical literature which attests to the presence of *lixae* or camp followers at Roman forts (Sommer 1984, pp. 6-7). However, this view has been questioned by Wells (2005, p. 62) in regard to the *vici* in Germany where he argues that they were populated by local inhabitants.

This early origin, in relation to the forts, combined with other factors, seems to indicate that we can rule out any substantial native role in early *vici*. This is strengthened when the layout of settlement in the *vici* and the type of settlement present is examined. Clarke (Clarke 1999; Clarke & Wise 1999) has discussed pivotal evidence in relation to the annex at Newstead and settlement in the North. He points out the lack of round houses, which has also been noted recently by Hopewell (2005) in relation to the Welsh *vici*. Sommer (1999b) highlights the similarity in plan between the strip-house present in *vici* and the Pompeian houses of the Augustan date. Yet even more significant than the morphology of buildings, is Clarke's observations on orientation and deposition practices (1999; Clarke & Wise 1999) (see Figure 5-3). Clearly these are very informative of who occupied these sites since, given their early construction, it is not

likely that the local population would alter their *habitus* over such a short period. Ethnicity studies in archaeology have shown that cultural traits were maintained even when local inhabitants relocated (Lightfoot *et al.* 1998) (see Figure 5-4). So these early *vici* inhabitants most likely accompanied the military units, or arrived shortly after. As such, there would have been varying ethnic origins. This is apparent from the epigraphic evidence, as noted by Salway (1965) (see Figure 5-5). Unfortunately as of yet there is little evidence from the *vici* which assists understanding of how these ethnicities played out in every day life on these sites. Recent work by both Hillary Cool (2004a) and Vivian Swan (1992; 2002), while focused on the military units, highlight ways to address some of these questions of ethnicity in the *vici*.

Brougham is argued by Salway (1965) to have had a sufficient proportion of local natives living there to account for the non-Roman names present within the epigraphic record. In light of Cool's (2004a) research on the cemetery and her argument for a Pannonian connection, the origin for non-Roman names can possibly be explained. The second epigraphic piece of evidence is argued to originate from Chesterholm (but was found in Beltingham churchyard) in the form of a dedication to the Goddess Satiada by the council of the *Textoverdi*, and has been argued to be of local native origin:

> To the goddess Satiada, the council of the *Textoverdi* willingly and deservedly fulfilled their vow. (*RIB* 1695; altarstone)(Collingwood & Wright 1965)

Unfortunately not much more is known about the *Textoverdi* or their involvement in the military *vicus* at Chesterholm. So while we cannot exclude the possibility of a limited local presence within *vici* in northern Britain it is highly unlikely that any significant number of local natives occupied these sites.

The second area of interest concerning interaction between natives and the *vici* has focused on the role they played in the exchange of material. While it is well attested that *vici* were important industrial and commercial areas, the extent to which they factored into modes of exchange with local communities is problematic. As much of this evidence lies in Roman material in non-Roman contexts, there has been considerable debate in the past on how this material arrived at these locations. Exchange in an economic manner has been forwarded many times, and specifically concerning the role of *vici* in this exchange:

> Others (merchants) were more interested in trade with the barbarian beyond the frontier, who might cross to do business in the vicus. (Salway 1965, p. 24).
>
> Trade with barbarian in regulated markets also acted as a magnet to draw civilians into the region, and opportunities of doing business with the native farms that grew up in the districts around the forts swelled the influx. (Salway 1965, p. 39).
>
> It is inherently probable that the new taste for Roman manufactured articles should encourage native farmers to sell their produce in the urban centres where those articles and the money with which to buy them might be obtained. (Salway 1965, p. 114)
>
> The exchange of Roman for native, and native for Roman material must have taken place direct from hand to hand in the first instance, and the most likely centres for such exchanges would be the annexes attached to most, if not all, of the Roman forts in North Britain.... Fort annexes were probably the main primary source of supply for the Roman material which found its way to non-Roman sites. (Robertson 1970, p. 202)

While Salway's statements are explicit on the role of *vici* in trade in the local area and beyond the frontier, similar arguments have more recently been made, highlighting the perceived potential of future work on *vici* to address these issues of exchange with the local population:

> Exchange between the Roman and native in general was clearly more common in the Antonine period and in the military zone it might be expected that the *vici* played a focal role as centres for the payment of tribute and concomitant trade (Macinnes 1989, p. 113)

Hunter (2002) has also pointed out when discussing the finds from Inveresk, the possibility that these sites will illuminate issues of interaction between natives and Romans. While it is apparent that the *vici* were important in the supply of the fort garrisons it is difficult to assess the extent to which they played a role in exchange with local communities. Even with coin finds in native sites in the north it is hard to believe the local inhabitants played any significant role in a monetary economy as proposed by Salway (1965). Robertson's argument for a more hands-on barter and trade is more appealing, yet why would it have to take place in the *vicus*? While the possibility of there being markets in *vici* has been argued by Sommer (1984; 2006), how does this conform with the other arguments that have been forwarded by both Macinnes (1984a) and Hunter (2001) that much of the material in local communities was elite controlled, and in many ways utilised in a 'prestige' goods network that was bound up in displays of status? Did only the elites trade at these sites? Why did the *vicus* need to act as a middleman between the fort and the local community? Would there have been issues with access to the *vici?* Or should we assume that there were a variety of ways for these

materials to be exchanged? This raises many further questions. Can this exchange on these sites account for 'native' drift? As noted in previous research, while not in great quantities, 'native' objects have been found on Roman sites. Each of these forts have produced finds of native material: Ardoch (Robertson 1970), Bar Hill (Curle 1913; Robertson 1970), Birrens (Robertson 1975a; Wilson 2003), Camelon (Robertson 1970), Corbridge, Cramond (Holmes *et al.* 2003), Inveresk (Hunter 2002) and Newstead (Curle 1911, 1913). This is just a brief list of a few of them and is by no means complete but it highlights that it is a fairly common occurrence in the north. Would these items be part of this exchange process, or do they reflect more personal relationships?

Sommer (1999b) argued that the Roman forts and *vici* in south-western Germany should be seen in the terms of colonisation. Although, he was primarily concerned with the movement and settlement of populations, this view is equally as valid in the north of Britain. While there is little evidence for population settlement for immigrants outside of the *vici*, both the forts and *vici* would have occupied land that could have been potentially utilised by the local population.

If we compare what is occurring in the north to other archaeological periods and regions we gain a possible insight into cultural practices with regards to multi-ethnic settings. James (2001; 2002) and Wells (1999a; 2005) both have argued for the advantages of looking at different cultural contact situations. I will briefly discuss the Russian colony at Fort Ross in northern California, and how by studying midden deposition practices the archaeologists were able to determine the ethnicity of different regions of the settlement. While we cannot draw any direct parallels between Roman period Britain and colonial California, we can gain insight into a contextual approach to archaeology and gain inspiration for new ways of addressing *vici*.

A concluding side note is the role that modern perceptions of military bases may have influenced discussion of the nature and role of *vici*. As noted above, early discussions of *vici* or the annexes around forts seem to be biased by a view that forts were occupied only by soldiers and that any non-military personel would have been mostly of local origin. Additionally, some non-local traders would have also utilised forts in their dealings beyond the frontier. This view may have been influenced by the distinct civilian/enlisted divide in the early 20th Century. This was still apparent in Salway's discussions, though there were the beginnings of a subtle change in debate away from

the local population to one of immigration. The topic of *vici* had its next significant phase of discussion in the early 1980s to present. During this period the idea of the Roman army as a community came to play a dominant role, as such the civil *vici* were seen as containing a social support system for the fort garrison. The inhabitants were argued to consist mainly of immigrants who accompanied the Roman garrisons (in modern terms military dependants) (Haynes 1999; James 2001; Sommer 1984, 1999b, 2006). While the evidence seems to support such a view, it should also be noted that all of these authors lived in Britain and Germany during the Cold War. After the Second World War and the founding of NATO, numerous military bases in Western Europe were occupied by US military personnel. While these bases ranged in size, there were a number of heavily occupied bases in both England and West Germany: e.g. RAF Lakenheath, RAF Mildenhall, and Ramstein (which was part of the Kaiserslautern military community located at Kaiserslautern, Germany). These bases housed not only a large number of military personnel but also significant numbers of military dependants,[39] which were accommodated in purposely built annexes next to the bases. These locations not only provided services for military personnel but were communities in their own right, supplying service personnel with cultural 'goods' from North America and maintaining familiar cultural practices (US currency is used on them, and they are culturally closer to a US town rather than their local equivalents). The closure of some of these bases has also had a significant economic impact on the local populations (Robertson 1997). Thus these is a possibility that these large-scale NATO bases have influenced the way that military installations are viewed within the European consciousness. Whether this would have influenced how Roman *vici* were viewed with regard to housing dependants is a complicated question, but the period in which these studies were undertaken is a possible indicator.

5.5 Roman and Romano-British Material Culture

An integral aspect of previous understanding of Roman interaction with local communities focused on Roman material culture; primarily dealing with the presence or absence of goods pre-defined as 'Roman'. Examples of this type of approach began very early in archaeological discussions in the north and have continued up to the

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[39] The Kaiserslautern military community was made up of over 50,000 US military personal and dependents during its height. RAF Lakenheath is only slightly smaller "the Base Commander, Brigadier General John W Hesterman, told me that around 20,000 people live or work at RAF Lakenheath including 5000 US military, 2000 British Ministry of Defence personnel, about 400 contractors and 14-15,000 family members"(Sloane 2007).

present (Curle 1913, 1932a, 1932b; Hunter 2001; Kilbride-Jones 1938a, 1938b; Macinnes 1989; Robertson 1970; Stevenson 1956, 1974; Wilson 2003). The presence of 'Roman' material on local sites has been used not only to measure the amount of contact but has also been used as a mechanism for dating the occupation of these sites. This is often misleading due to the fact that, while this material creates a relatively tight chronology on Roman sites, there is no guarantee that they serve the same purpose as chronological indicators on non-Roman settlements (Alcock 1972, 1987; Alcock & Alcock 1987, 1990; Alcock *et al.* 1995; Hingley 1992b; Hunter 2001). The difficulties of dealing with Prehistoric and Roman 'time' have been discussed in detail in section 4.3, here, another specific 'finds' aspect is raised, that these objects may have had a considerably longer currency on local settlement than they did on 'Roman' sites.

There are fundamental problems when dealing with Roman material culture in the context of this study. Before discussion of each of the types of material that are covered is undertaken it would be prudent to cover the overall problem of defining and using Roman material culture. These can be divided into the following:

1: What exactly is meant by 'Roman' material culture?
2: What is the 'function' or 'purpose' of 'Roman' material in non-Roman contexts? By what process does this material find its way to where it is finally deposited and then recovered? What are the mechanisms of exchange between these local communities and the source of production? In other words what is the life course of these artefacts?
3: Are biases created by focusing on 'foreign' material?

While all three issues interact and are part of the overall question of Roman material culture in non-Roman contexts, they present different issues that should be addressed separately.

5.5.1 What is 'Roman' Material Culture?

The definition of both 'Roman' and 'native' material culture has very early roots in archaeology and by the late 1890s these definitions had become fairly fixed. This can be seen in the discussion of finds from Burnswark, which were compared with the finds from the Hyndford crannog in Lanarkshire. The fact that both sites contained what the excavators considered 'Roman' and 'native' finds, led to discussion of how using finds to determine the identity of inhabitants of a site could be misleading (Christison *et al.*

1899). One of the earliest explicit discussions concerning the classification of Roman artefacts can be found in James Curles (1913), *Roman and Native remains in Caledonia.* In this particular work and his subsequent paper, *Roman Drift in Caledonia* (Curle 1932b), Curle outlines how artefacts are determined as Roman:

> In the first place, there is a group of objects which presents a close parallel to things found on Roman sites on the continent. It embraces the same weapons, armour, tools, locks and keys, styli, pottery, altars, querns which are to be seen at Bonn, at Mainz, or the Saalburg (Curle 1913, p. 99).

It is against this concept of perceived homogeneity that artefacts are defined as 'native':

> In the second place, there is another and smaller group presenting features quite distinct from the continental finds, in which it seems we must recognise the products of the native British civilisation (Curle 1913, p. 99).

So in simplistic terms, the early assemblages were compared to contemporary sites on the German *limes*. The material which matched artefacts from these sites was then perceived to represent a general Roman cultural assemblage. As such, all the finds which did not neatly fall into comparable forms or types can be seen to be of a local 'native' manufacture. While this is a straightforward approach it does present problems as it excludes the possibility of regional variation and presents a simplistic picture of a monolithic Roman culture. Yet the concept of material homogenisation cannot be ignored as there are similarities in form and style which often cover large areas of the Empire. This is the explicit explanation presented by Curle for the categorisation of these objects, but looking at the suggestive language he uses it is possible to highlight other factors which contribute to the classification of 'native' artefacts. These relate to the perceived usage of the finds and the quality and workmanship. Curle defines objects which he perceives to be female in nature as 'native,' demonstrating his assumption that decorative ornaments and weaving combs could not have been male and that the Roman military would not have been accompanied by Roman women; and so his conclusion is that the material represents the presence of local women at these Roman sites (Curle 1913, pp. 98,104). His second assumption is based around the quality of the artefacts. This is evident in the statements and words with which he chooses to describe material which is deemed 'native'. Wooden and antler picks are referred to as 'primitive' with Curle continuing: "it is difficult to believe that men furnished with such tools as the iron picks and hoes found at Newstead would abandon them for such comparatively barbarous implements" (Curle 1913, p. 104). This does not fully explain why these objects were found in Roman forts.

This is not to argue that only poor quality material was considered 'native' as there is a third category suggested by Curle (1913) which relates to objects with 'Celtic' decoration that appear to be of local manufacture. Many of these initial assumptions have remained unchanged as regards what is now classified as Roman and 'native' manufacture (see Harding 2004; Hunter 2001; Macinnes 1989; Robertson 1970), though there has been a recent critical reassessment of this view where this dichotomy of definitions is questioned and a new method is proposed (Hunter 2007, pp. 294-6). That this has taken so long to question is partly due to the fact that many of these conclusions have been supported with subsequent work, and regardless of the sometimes dubious initial reasoning there are broad trends in the material, which Curle did highlight.

This debate concering what material can be defined as 'Roman' re-emerged in the early 1990s, partially in a response to Millett's *Romanization of Britain* which favoured a model of cultural assimilation through the adoption of Roman goods and customs (Millett 1990). In many of the critiques of Millett's model, the ambiguous nature of what is meant by 'Roman' material was highlighted (Barrett 1997; Fincham 2002; Freeman 1993; Mattingly 1997, 2004; Webster 2001; Woolf 1992). Freeman (1993) and Fincham (2002) explore this problem further by demonstrating just how subjective the concept of 'Roman' is in regards to dealing with material culture created in a variety of locations: "is samian made in Gaul 'Roman material culture'?" (Fincham 2002, p. 5). Clearly this issue is not straightforward and in reality many of the current categorisations reflect modern biases which need to be addressed. While this has a bearing on this study, it does not pose a significant problem if we redefine the material into two broad groups and see 'Roman' to represent material which could not have been produced on local settlements or within their hinterland. This includes items which the local 'native' communities would have had no direct access to, or control over the means of production. By placing the material in this context it makes little difference if the artefact was produced in the Nene Valley or southern Gaul. The material would be representative of the 'other' on these local settlements and how they would have defined it would most likely be reflective of both how it was acquired and what role it played within their lives. This dualistic approach does have problems, as there are a range of items which are locally produced but have been directly influenced by the 'Roman' occupation as they are not present before conquest (see5.5.4.3). It is also important to remember that while this is an issue of classifying material culture, the end goal is an

understanding of the social identity of the users/consumers and what role this material plays in this process.

5.5.2 What is the Function of 'Roman' Material in Non-Roman Contexts?

By what process does this material find its way to where it is finally deposited and then recovered? What are the mechanisms of exchange between these local communities and the source of production? What is the life course of these artefacts? In order to address these issues it is appropriate to question why 'Roman' material was adopted. This is integral to the discussion of how this material arrived at these sites. Recent research has focussed on the role of this material as status items, arguing that they are primarily prestige goods utilised to reinforce existing social hierarchy (Hunter 2001; Macinnes 1984a, 1989). Earlier accounts did not necessarily address this question specifically (see Curle 1913, 1932a, 1932b; Robertson 1970). There was an inherent idea that these goods represented technological improvement and as such were naturally better and therefore more desirable than 'native' items (see specifically Curle 1913; Piggott 1951). In this regard, the 'why' was not problematic because of the implication that if people had access to these goods they would naturally acquire them. These early accounts focussed on defining and categorising these items and then on measuring the quantity and quality of such artefacts (Curle 1913, 1932b; Robertson 1970). The results from these studies were used to reinforce arguments for trade and exchange between Romans and 'native', and as evidence for the 'bribes' or payments mentioned in the historical sources. These bribes were used by the Romans to purchase peace at various times beyond the frontier (Bateson 1973, p. 29; Berger 1996; Bursche 1989, p. 284; Gordon 1949; Hunter 2001; Lind 1991; Robertson 1975b, 1978, 1982, p. 225; Todd 1985, p. 230).

In many ways, recent discussions of 'Roman' finds still focus on these issues but they have begun to address why the objects were, or were not, adopted. The model which has been most popular is that of prestige goods (Armit 2005; Macinnes 1984a, 1989), and Hunter (2001) has suggested that there was considerable 'consumer power' in what was acquired, stating that most of the goods found in non-Roman contexts related to earlier practices of display and feasting activities, reinforcing or maintaining a continuity with pre-Roman practices. This leads to the implication that these goods were primarily 'elite' in nature and their presence and quantity relates to the status of both individuals

and sites. These arguments are reminiscent of prestige-good networks from the Bronze Age where similar arguments have been put forward (Earle 2002; Thorpe & Richards 1984), and on a more general level in archaeology where prestige goods have been seen to play an important role in hierarchy formation (Brumfiel & Earle 1987; Cobb 1996 ; Earle 1991, 1997, 2000; Earle & Ericson 1977; Friedman & Rowlands 1977; Peregrine 1990). Closer to the Scottish Iron Age in location and period is Haselgrove's (1982) assessment of prestige goods relating to the south east of England in the pre-conquest Iron Age. Central to these arguments in the northern context has been the work carried out at Traprain Law (see 7.4.4) which has produced large quantities of high quality finds both 'Roman' and 'native'. The argument in favour of these models of elite redistribution and control of status finds,[40] have claimed that Traprain was a central place primarily because of the high number of artefacts (Armit 1997a; Hanson 2004). In addition to Traprain, Leckie, Fairy Knowe, Edinburgh Castle, Torwoodlee, Eildon Hill North and other sites with high quantities of finds have been argued to house elites (Hunter 2001; Macinnes 1984a, 1989). Yet the root of this argument is circular in nature: as these sites are seen as elite because of the finds, yet the finds are seen as indicative of elites.[41] Alternative explanations to this central place model of redistribution have suggested that hillforts such as Trapain Law were symbolic and ritual centres, and as such the large number of finds on these sites could relate to depositional practices associated with large gatherings and ritual offerings. The goods would have come to these sites rather that being distributed from them (Hill 1982b, 1987; Hingley 1992b).

There are inherent problems with the prestige goods model in general, which have come under considerable debate in recent times. Hill (1995b) has criticised the central place model in relation to the Danebury evidence in the south, showing that the deposition and life course of this material in that specific region was far more complex than previously thought. Prestige goods networks are also hampered by a lack of specific explanation of the mechanisms of redistribution. This has been highlighted in a different but theoretically applicable region in archaeology, the prehistoric North American southwest:

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[40] Which are largely seen as 'Roman' finds in non 'Roman' contexts or are based on assumptions on the value of such finds, i.e. Samian is seen as more valuable that coarse pottery and decorated Samian as more valuable than non decorated Samian .

[41] This need not be overly problematic in that most archaeological arguments contain an assumption which is often reinforced by circular evidence.

> Bradley (1992) makes another criticism in her study of Casas Grandes shell exchange. She argues that many prestige goods models pay little attention to how goods, once procured, are distributed to the general population. I believe she is asking about the social context within which transactions are made. Are goods redistributed in a social context of group feasting? In a context of individualized exchanges where valuables move against other, perhaps more utilitarian goods? Or does the distribution occur only with the completion of some labor [sic] service performed by subordinates for elites? In most prestige good models the relationship between interacting parties in not well specified. (Saitta 2000, p. 153)

While the above reference concerns a different archaeological context, it highlights similar problems that persist in the application of prestige good networks in the northern frontiers. There have been few explicit discussions of the mechanisms of this exchange and in what contexts they would have occurred. Until these issues are resolved it will be very difficult to address the accuracy or usefulness of a prestige good model.

Prestige goods models also work with the assumption that knowledge of access to, and the control over, these goods represents or equates to real power within society. Helms (1992) has argued that this is not always the case and that foreign goods can also represent danger, something that should be given considerable attention given the nature and source of the material in question. This is similar to the concept of 'ports of trade' developed by Polanyi (1957). While the concept covered a number of issues, the relevant aspect is that certain foreign goods are sometimes restricted to, or contained to, certain sites as a means of limiting and controlling their impact. The artefacts may have strongly represented the occupying 'Roman' garrisons and newcomers to the region and therefore could have had negative connotations, which might explain some of the depositional practices, re-use and reshaping of the material. Prestige goods networks, by focusing on the items themselves, often fail to address the social aspect of the exchange: goods do not move; people move them. If we put this down to solely elite action, those of lower social importance become in a way 'invisible' and are excluded from any holistic discussion. A more realistic model is that of socially embedded exchange which takes into account the circumstances of exchange and the relationships and bonds responsible for and formed by such exchange (Saitta 2000). These relationships would have been more important than the material exchanged, with regards to the actions of the agents of the period.

Hunter (2001) has highlighted that many of these 'Roman' items are found in natural places which may have had social significance to the local communities. These deposits

could represent gifts to Gods or ancestors, or be the by-products of social events (Aitchison 1987, 1988; Bradley 1998a, 2000, 2005). Of course, the division between natural and cultural in the past may not have been as clearly defined as it is today, indeed no such distinction may have existed (Bradley 1998b). This emphasises the importance of the context of this material both in regard to the landscape and within the settlements themselves. It is, perhaps, only by looking specifically at these contexts that we can begin to understand the role and function of these objects in non-Roman society. The answer to these questions will not necessarily lie in the objects themselves but in how they were used, treated and finally deposited. Much of the material from these sites is fragmentary in nature, and many of the objects show signs of reworking and use, far in excess of (or for different purposes from) their intended function. Finds from Fairy Knowe provide a good example of this; samian bowls were reworked as shallow dishes, and many fragments show signs of wear to indicate that were probably used for polishing (Main 1998). If we combine this fact with recent analysis of metal and glass objects on some of these sites it points to some of the objects which are perceived as 'native' being made largely out of recycled Roman material (Dungworth 1996, 1997a, 1997b; Henderson & Kemp 1992; Main 1998). Roman goods could have been acquired not only for their own intrinsic merits but as a resource for the creation of objects with more specific cultural purposes (Hunter 2001; Keller 2005; Main 1998). This might also explain the relative lack of finds on many of these Roman-Iron Age sites, representing an economy which was focused around re-use and recycling. This can be contrasted with Roman forts which contain vast quantities of material culture, and could arguably be representing a society of consumption and waste in relative terms, a perhaps an early 'throw- away' culture, where supply was not so much of an issue; and the function of the objects was reliant on an initial perception.[42] It should also be considered that these

[42] Higham (1980; 1982; 1989) and Hingley (2004) have touched on these ideas of different economic systems in northern England, focusing primarily on agricultural bases and the ability of areas to generate surpluses. Many of Higham's arguments focus on the ability of certain areas to maintain elites and therefore their ability, or lack of, to embrace cultural practices which were taken up further south (namely villas). In the article Higham (1989) highlighted the economic differences inherent on fort sites vs. rural settlement. The conclusions point to a system which in many ways could be compared to economic systems of present Third World regions, based on subsistence compared with the trade dependent Roman economy. It is interesting to address how Third World economies acquire goods in the global market. We can categorise the way in which western goods are often acquired in developing regions in two broad and overly simplistic reasons (Appadurai 1986; Arnould & Wilk 1984; Classen 1996; Ensminger 1992; Gell 1988; Hoodfar 1997; Howes 1996; James 1983; Miller 1987). The first relates to these goods acting as a status display and second is that they fulfil the same role as objects which are already in use, but because of the global market become easier or less time consuming to obtain. In the modern world though it is the social outcome of these acquisitions which is of interest not the items themselves. By acquiring them, individuals and villages are brought into the global market with all the its social ramifications. While these arguments are not directly applicable to the Roman period, it highlights that it is not necessarily the items themselves which are important but the social implications which often accompany them.

items reflect taphonomic issues, and that we are left with only a partial picture, as some may have been acquired not because of what they are but what they contained as is the case with amphora and glass vessels, though these particular examples only make up a small portion of the recorded assemblages from the area.

5.5.3 Are Biases Created by Focusing on 'Foreign' Material?

One of the major considerations of any study that uses as its focus point the presence of 'Roman' material, is that it will lead to a biased view of what was occurring on these sites at the time. By focusing on this one aspect of culture, undue importance is given to what, in all regards, is only a portion of the overall assemblage on these sites. Roman finds are given an inflated importance, which contributes to the view that their acquisition was both natural and desirable, creating a one-sided view of the Roman Iron Age. This, coupled with the tendency to date non-Roman sites by the presence or absence of 'Roman' finds, offers an overly simplistic view of temporal issues; focusing primarily on a material whose acquisition is not completely understood (Hunter 2001, 2007; Macinnes 1989). Unfortunately, as there has historically not been data which is context specific, there was often little alternative but to focus on the quantity and quality of 'Roman' finds. This is beginning to change as recent excavations have been more concerned with recording the specific contexts of these finds in a highly detailed manner. While this study could be seen to reinforce these biases by focussing on 'Roman' material culture, an attempt is made to alleviate this by also factoring in the location of finds. This has been done in the past to a limited degree with distribution maps. The advantage of this study is that these distribution maps are represented in a GIS, which allows the relationships of these find spots to be further studied with spatial statistics. While this will not overcome the biases discussed, it does allow progress away from a dependency on the artefact itself as the main source of information. This is an initial contribution to what must be a more widespread and fundamental reappraisal of the Roman north of Britain, which deals with these inherent biases in how 'Roman' material is studied.

5.5.4 Types of Material that Factor into the Discussion

Now that the theoretical issues of dealing with this material have been discussed, a specific discussion of what constitutes the main categories of material in this study will be covered. These can be broken down into four broad categories namely: pottery, coins,

glass and metal objects. All these types have a relatively high survival rate which is the reason they are over-representative of finds in the north.

5.5.4.1 Pottery

Pottery discussed in the study can be divided into two categories, Roman pottery and local 'native' pottery. This is slightly confused by a number of finds from Cramond, which appears to indicate a blending of the two categories in the region (see Chapter 7), but generally the simple distinction holds. Willis (1999) has argued that 'native' north is not as aceramic as has often been suggested. In south-east Scotland two distinct types of local pottery have been identified (Cool 1982). The two types, while both coil built, differ in quality: Type I being very coarse and of poor quality with large inclusions of grit, Type II is of better quality and slightly smaller in size (Cool 1982, p. 93). Cool (1982) suggested a chronological distinction between the two types, with Type I occurring earlier in the Middle Iron Age, while Type II occurred later during the Late Iron Age and the Early Roman Iron Age (but see section 7.3.2 for a further discussion). Roman pottery can be further subdivided into Roman coarse ware (Gillam 1968), Roman fine ware (Evans 1995) and Samian ware (Evans 2001; Greene 1992; Peña 2007; Tyers 1996; Willis 1997, 1998, 2004, 2005). These types appear to factor into regional trends and specific site acquisition of pottery in non-Roman contexts in Scotland. North of the Forth, Samian is the main type acquired, while south of the Forth there appears to be a more mixed distribution (Hunter 2001). In the south, larger and higher status sites seem to acquire coarse ware and larger quantities of fine ware. However, this appears to be an exception as the general pattern is that small quantities of finer pottery occur on smaller sites, or this material is absent entirely (Hunter 2001).

5.5.4.2 Coins

Roman coins in Scotland have been synthesised over the years (Bateson 1989; Bateson & Holmes 1997; Casey 1984; MacDonald 1918, 1924, 1934; Robertson 1950, 1961, 1971, 1975b, 1978, 1983; Sekulla 1982b) and continue to be an area of important study. Coins do not only provide information for dating but can also enlighten issues pertaining to supply (Casey & Reece 1988; Reece 1987, 2002, 2003). With regards to non-Roman contexts, coins can be classified as those possibly acquired during occupation and those acquired post-occupation, which is useful for assessing the nature of interaction in a diachronic manner. In non-Roman contexts the numbers of coins are not significant enough to utilise Reece's or Casey's issue periods (exception would be

Traprain Law). This is also complicated by the fact that these methods are not readily applicable without an understanding of the supply of Roman coins to these sites. Some of the coins studied in the distribution models are stray finds. Casey (1984) addressed utilising stray coin finds in Scotland, yet concluded that many of the late stray finds in Scotland were relatively modern losses, thus invalidating their study on archaeological grounds. Suspect coins were excluded from discussion in this project, but the distribution for post-Severan coins (see Figure 6-25) are so closely related to Roman infrastructure that Casey's conclusion may have to be reconsidered. Unlike Roman coins, there are relatively few Iron Age coins found in Scotland, highlighting the lack of a pre-existing coin tradition in the region (Hunter 1997a). In this regard, coinage would have been a novel introduction into the area and would have had strong associations with the Roman presence. There has been the tendency in past discussions of coinage in the Roman north to focus on the nature of economic exchange and how this would have related to a 'market' economy, often seeing coinage as indicative of participation in some form of standardised economic exchange (cf Breeze 1989 pp. 228-9; Davies 1983; Greene 1986, pp. 50-7). This view has been criticised in relation to Roman and non-Roman contexts, where the notion of coinage in Britain being associated with a 'market' economy has been questioned (see Aitchison 1988; Reece 1979); and in relation to the pre-Roman period (Haselgrove 1979).

The concept of a market economy is a complex one in the context of the Roman Iron Age of the north, as it carries modern connotations. Indeed the term 'market economy' cannot be separated from such notions and is bound up with concepts of exchange which are disconnected from social relationships. This is not to say that 'market' (i.e. in an actual physical market) exchange did not occur or even that coinage would probably have had little to do with such exchanges (see Greene 1986, p. 47), as coinage served a variety of functions in pre-capitalist societies. Polanyi identified three uses of coinage which were not necessarily interconnected, dealing with coinage "as a medium of exchange, as a standard of value and as a means of payment" (Humphreys 1969, p. 183). In addition to these, other non-commercial functions for coinage have also been highlighted (Kraay 1964). If modes of exchange are to be understood it is necessary to address the nature of pre-capitalist exchange. Polanyi highlights four modes of exchange for the distribution of materials: reciprocity, redistribution, exchange and householding (Humphreys 1969, p. 204; Polanyi 1957, 1966, 1968). The first three relate to the *Gemeinschaft* and the last specifically to the *Gesellschaft*. These modes

may also be related to Sahlins (1968; 1972) model of reciprocity, which would view them all as different aspects of this social system of reciprocity (i.e. generalised, balanced and negative). What is essential to all of these modes of exchange is that the social relationships bound up in them predate the *Produktionsverhältnisse* (Humphreys 1969, p. 203). This is interesting as it differs from Marx's early view of pre-capitalist societies where social relations are created through the mechanism of production (Marx & Hobsbawm 1964). The exchange of material within a settlement then would fall under house-holding, yet that of exchange between the local population and the Roman garrisons could have occurred in a number of different manners which would have been dependent on their social relations. Therefore any understanding of material exchange needs to be discussed in the context of a fuller understanding of the role of social relationships in the distribution of these goods (see Saitta (2000) for example of the importance of considering social aspects in exchange). The applicability of these ideas to Iron Age and Roman period Britain has been explored by Ian Hodder (1979), who concluded that most exchange at these times occurred in a substantive manner within an embedded economy.

5.5.4.3 Glass

Glass is an extremely important material in regard to settlement in the north of Britain in that it represents a high proportion of the finds found on non-Roman sites which date to the Roman period. This is probably a reflection of taphonomic conditions (as glass survives fairly well compared to some of the other finds) but the social importance of this material should not be overlooked. The primary source of glass vessels and objects on these sites would have been Roman in origin (Price & Cottam 1998). Glass-bangles on the other hand have a more convoluted history of study. They have been seen traditionally a 'native' item (Curle 1932a; Kilbride-Jones 1938b) and are argued to have been produced at Traprain Law (Hanson 2004, p. 152; Kilbride-Jones 1938a; Stevenson 1966b, pp. 28-30). Glass bangles were first systematically studied by Kilbride-Jones (1938b), who suggested a broad 3 type classification. This classification was clarified by Stevenson (1956; 1974) and Price (1988), who further refined the dating sequence. This view of bangles as wholly 'native' has been questioned (Price 1988; Stevenson 1956, 1974) and analysis of the bangle fragments from Eildon Hill North has shown that they are constructed out of Roman glass (Henderson & Kemp 1992) supporting Stevenson's earlier claim that Roman glass was the source of the raw material (Stevenson 1956). Price (1988) has noted that the distribution extends far to the south of

what has been traditionally noted (see Figure 5-7 and Figure 5-8). The distribution of glass bangles is also actually more common on Roman sites and there is the possibility that both types 2 and 3 may actually be of 'Roman' construction (Price 1988). Type 1's distribution though is isolated to Scotland, and production of this type most likely occurred in the region between the two walls, with the highest concentration occurring at Traprain Law. Traditionally such items were assumed to be 'native' because they were seen as being female is nature and therefore could not be associated with the Roman forts (see Curle 1913, 1932a). This view was adopted by Kilbride-Jones (1938a; 1938b) who chose to classify them as an entirely native object distancing their discussion from Roman contexts. This should probably be re-evaluated given Hunter's (2007) reassessment of metalworking contexts.

5.5.4.4 Metalwork

Metalwork in Scotland has a long history of archaeological study (Hunter 1997a; Hunter 1997b; Hunter 2001, 2007; MacGregor 1976; Manning 1972, 1981; Piggott 1953b; Simpson 1968; Stevenson 1966b). Much of this has focussed on the issue of 'Celtic' art (MacGregor 1976; Megaw & Megaw 1989; Stead 1996), yet this is primarily of a stylistic and aesthetic concern. As with the other materials from the northern frontiers, there has been a strong trend towards viewing these items in a 'Roman-native' dichotomy. Hunter (2007) has recently questioned this dichotomy in relation to metalwork in the northern frontiers. On stylistic grounds there are two main metalworking traditions in northern Britain: the Massive metalworking tradition and the Central British metalworking tradition (see Figure 5-9 for a distribution map). Hunter (2007) has noted the tendency for examples of the Central British tradition to be found on Roman forts and this coincides with their overall distribution, which appears to mirror Roman military deployment (the exception being the group in Norfolk). Dungworth (Dungworth 1996, 1997a, 1997b) has carried out analysis on some of this material and found that much of it is made out of recycled Roman metal. There are exceptions to this rule with certain types of metal, as local iron work does not seem to have made use of Roman iron (Hutcheson 1997). There also seems to be evidence for local sources of high quality (pure) copper, which has been found at Edin's Hall broch (Dunwell 1999). Similar copper remains have been found at Fairy Knowe(Main 1998), with evidence of manufacture. This may indicate trade connections between the two sites, but it also indicates that certain Roman items were used as raw materials, whilst others were from local sources. This may indicate that local communities only had

access to certain types of Roman material, or that they were specifically selective in what was reworked and what needed local sources. It is important to note that many of the metal objects of so called 'Celtic' art relate to personal display or displays of wealth such as horse harnesses and would have been at home in a variety of social contexts (Hunter 2007).

5.5.4.5 Concluding Remarks on Material Culture

To sum up the difficulties of understanding the use of 'Roman' or imported material culture from non-Roman contexts in northern Britain, two specific trends in the material will be focussed upon. Using anthropological examples to highlight how complex such interpretation can be, these will serve to act as a warning against applying simplistic models of cultural use to the archaeology. Both ethnographic examples highlight the problem regarding use of Roman material as straightforward evidence for acculturation.

The first trend in the Roman material from northern Britain is its re-use by local communities. Whether this is as a raw source of material to construct local items, such as the bronze 'Celtic' metal-working or glass bangles, where the material is completely transformed, or the partial transformation of fragments, such as the re-use of pot bases as spindle whorls. While this is indicative of the resourcefulness and general lack of resources amongst the 'native' population, such an answer cannot fully explain this, as local sources were exploited for copper and iron. Therefore, certain items were seen as desirable from the standpoint of being re-worked into an item which had a more local association. A parallel of this can be found in early colonial contact between the Portuguese and peoples of Benin, where Dutch, bronze bracelets were traded by the Portuguese (Childs & Killick 1993). These items were accumulated by the Benin aristocracy, who through existing metal-working traditions, utilised the bronze to create ornate reliefs to adorn their residences, commemorating personal achievement and reinforcing their power and position through display (Childs & Killick 1993). Was something similar occurring with local re-use of Roman material?

Could such a transformation also represent a desire on the part of the local inhabitants to redress a real or perceived imbalance of power relations? By transforming this material, were the locals making a political statement, in that such action empowered themselves by transforming the objects of an oppressor? The second trend is the general use of Roman material and whether this can be seen simply as the willingness to adopt foreign

culture, or as a measure of acculturation. Can the presence of Roman material indicate positive connections to the Roman garrison and the lack indicate negative? While this would at first seem fairly straightforward, epigraphic examples can again highlight the complexity of the utilisation of foreign material within cultural contexts. An example of this can be found in considering the Herero peoples of Southwest Africa, what is today Botswana and Namibia. The region was colonised by the Germans in the late 19th Century and while there had been earlier interaction between the Herero and Portuguese traders, the local Herero and German settlers were often involved in conflict which cumulated with the near genocide of the Herero peoples in the years 1904-1907 (Durham 1995; Hendrickson 1996). Those Herero which survived dispersed throughout Southern Africa, and maintained their unique cultural traditions. Many of which surprisingly were based on German practice. This though cannot be seen as a form of mere acculturation as these traditions were reinvented in a local Herero fashion with specific meaning reflective of their struggle with the German soldiers (Durham 1995; Hendrickson 1996). Women wear traditional Victorian dresses (Durham 1995) while the men attend ceremonial occasions dressed in German style military uniforms:

> After the war [with the Germans], the Herero wore the clothes of their bosses. The bosses, even nonmilitary, were wearing uniforms. Samuel Maharero's generals wore this after the war . . . [As ranks,] General was higher than Hauptmann, which was higher than Kaptain. . . .[The ranks are for] anyone doing a brave deed, not just for the elders. It is the same thing as wearing the lion skin, *outoni.* (Hendrickson 1996, p. 227)

> If you wear the clothes of your enemy, the spirit of the enemy is weakened. You are then wearing the spirit of his brothers and then they are weakened. Hereros did do this; there is the sense of this in wearing the German uniform. (Hendrickson 1996, p. 227)

This not been suggested as model for local native society but rather to illustrate the fact that the adoption of material culture on its own cannot be seen as indicative of friendly relations between the Roman garrisons and local populations. The use of ethnographic examples which can challenge traditional simplistic accounts of acculturation is an area which could be developed further with regards to the Roman north, not as a direct parallel, but as a technique to increase the number of possibilities considered.

5.6 Conclusion

The focus of this chapter concerned the practical and theoretical consideration of analysing the data studied for this thesis. The first section covered the topic of data

collection in southern Scotland and was followed by a brief outline of the methods utilised in the study. Site classification was discussed and the issue of site type visibility was considered. This was followed by a theoretical discussion necessary for the examination of Roman material culture in southern Scotland. Overall this chapter has supported the need for new synthesis and approaches to the archaeology of the Roman period in Scotland. Such evaluations stimulate discussion and force a continual reassessment of the assumptions inherent in the archaeological approaches, strengthening the understanding of the region and period.

6 Newstead Case Study Area

6.1 Introduction

The first study area covers a large portion of the Scottish Borders (the local government council region of modern Scotland) and is located between the other two study regions (see Figure 6-1). Although the Newstead study area is problematic with regards to both the amount and quality of excavation which has been undertaken to date, the archaeology contains great potential to address the issues of interaction between Roman garrisons and local communities. Newstead was specifically chosen as a focal point for two main reasons. First, the significant role the region has played in discussions of Roman frontiers, and second, because of the relatively high number of excavations in relation to other areas of southern Scotland. The lack of excavations in southern Scotland in general has led to an over-reliance on the analysis of settlement distribution in discussion, which creates difficulty in understanding both the chronological shifts and the broader trends in prehistoric society. However, this approach did produce significant results relevant to the main themes of this thesis. The analysis allows a broader understanding of the impact of Roman infrastructure and occupation on the local population to be both measured and assessed through settlement morphology. When these results are combined with the distribution of 'Roman' finds, significant trends emerge relating to the level of interaction between the Roman garrisons and local population. There appear to be two main distribution mechanisms of 'Roman' material in the region: One which relates directly to the Roman infrastructure and a separate mechanism in which spatial considerations seem to be less important and access to objects appear to be determined by the status of occupants of certain sites. This indicates that the Roman occupation had an impact which varied in intensity dependent on a number of factors within the overall region. It is unwise to discuss the occupation in simplistic or uniform terms and so it is argued that this period needs to be addressed in a far more regionalised manner which takes into account local evidence to understand the full impact of the Roman occupation and transition.

6.2 The Study Area

The full extent of the Newstead study area is 1,256km²and is marked on Figure 6-2. The area is formed by a 20km radius buffer around the Roman fort of Newstead, and covers

a large portion of the surrounding environs, which allows areas outside of the immediate catchment of the fort to be assessed. In order to better understand specific locations within the Newstead region it is necessary to discuss them at a more localised level which is explored in greater depth in separate sections. The database for the area was compiled in the manner already discussed (section 5.2) and includes a thorough (re)classification of the NMR data as well as a review of all published articles and readily available excavation reports. However, before an evaluation of the results is undertaken, a review of the history of research will be outlined in order to assertain the current position of research in the area.

6.2.1 Past Studies of the Region

While the Newstead region bears many similarities to the other study areas in southern Scotland, there are significant differences in both settlement distribution and Roman occupation. The biggest difference is primarily one of archaeological investigation, as the Newstead region currently lacks the level of published survey and excavation of the two other regions. While traditionally the Newstead region has seen a limited amount of excavation and survey, it has, like all of southern Scotland, benefited from prolonged and organised aerial survey which has identified many sites, primarily smaller settlements, in the form of crop marks and earthworks (Cowley & Brophy 2001). The vast majority of sites in this area have been identified in this manner. While this is similar to the Inveresk and Dumfriesshire areas, the region around Newstead differs as that while it has been subjected to survey, the results of these works have not yet been fully appraised. The Newstead region overall lacks a coherent analysis of late prehistory and the Roman period, and as such an in-depth study of this specific region is sorely lacking. Wise (2000) has written exclusively on the Late Iron Age social framework of the Tweed valley but most of what is understood about this area has been undertaken in general studies of southern Scotland (Armit 1997a; Halliday 1982, 1985; Harding 2001, 2004, 2006; Harding *et al.* 1982; Hingley 1992b; Piggott 1966).

The reliance on a broad regional approach and framework for southern Scotland has failed to address any specific regional characteristics in the Newstead region. Past excavations of settlement sites can be separated into three broad chronological phases; excavation which occurred before the 1920s, excavations from the 1920s to 1989, and the last phase which has occurred since 1989. The first phase of excavations in the area tended to be relatively small scale and was almost exclusively carried out by

enthusiastic amateurs.[43] Excavations included the sites of Hare Law (1864), and Spottiswood (1870) (RCAHMS 1915). The brochs of Bow Castle and Torwoodlee (Curle 1892), the survey of the hillfort of Rubers Law (Curle 1905) and the circular enclosure of Esterhill (Curle 1911) also belong to this first phase of investigation but differ as they were excavated by professionals. These early excavations often produced little material and rarely a contextual understanding of the site involved, the exception being Torwoodlee which produced both finds and was fairly well planned. The second phase incorporates most of the relatively sparse excavations of the 20th Century. While these were excavated far more systematically and in greater detail, there were very few total excavations carried out in the area and they also tended to focus on the monumental excavations, such as at Dunion Hill (Rideout 1992), Eildon Hill North (Owen 1992) and the re-excavation of Torwoodlee (Piggott 1951).

It was because of this general dearth of settlement excavation in the region that the Newstead Research Project conducted a series of excavations between 1989 and 1993, which targeted specifically smaller enclosed settlements in the Newstead region (Jones 1990). Forty sites were surveyed during this third phase of investigation and a number of enclosures were excavated or surveyed including Cauldshiels Hill (Jones 1990; Jones *et al.* 1993), Lilliesleaf (Clarke & Wise 1998; Dent 1994; Wise 1998), Newstead enclosure (Frere 1991; Wise 1995), Oakendean (Wise 1996), Ridgewalls (Dent 1993) and Whitrighill (Dent 1992). This series of excavations has greatly increased the overall understanding of settlement during the Iron Age in the Newstead region and has begun to address the excavation imbalance. However, this has still not led to a general reappraisal of social organisation or chronology. This lack of attention to the prehistoric evidence in the area contrasts greatly with the attention Roman scholars have placed on the region in attempting to transpose and interpret maps of tribal identity from classical sources (Barrow 1989 ; Breeze 1982; Breeze & Mann 1987, pp. 88-9; Feachem 1966, p. 79; Richmond 1958a). The primary question asked by the Roman scholars concerned discovering which tribal entity this specific region fell under: *Selgovae* or the *Votadini*? While this debate is of interest, without a proper understanding of the archaeology of the area little can be added to the existing overall picture. In actuality, it seems that without this basic understanding of local society in both the Late Iron Age period and

[43] The term amateur is potentially misleading in that there were very few professional archaeologists at the time. It has been used here to differentiate between academics associated with a university and members of public societies with little formal training in archaeological methods.

under Roman occupation these discussions on tribal boundaries are at best premature as there is little evidence of well banded tribal groupings in the region.[44]

The Newstead area has been the focus of a number of large scale excavations both of 'native' sites (Dunion Hill, Eildon Hill North and Torwoodlee) and specifically the Roman fort of Newstead itself. The distribution of Roman forts can be seen in Figure 6-3. While Curle's (Curle 1911) study might seem dated today, it was for the period a very advanced and methodical excavation and the report greatly influenced the understanding of the Roman occupation of the north (see Figure 6-4 for Curle's plan of Newstead). The value of this particular study has been highlighted recently by the work of Clarke (Clarke 1995, 1997; Clarke & Jones 1996)(see Figure 6-5 for a modern plan of Newstead). This, coupled with the large body of data which has so far been collected on enclosure location and the limited excavation on settlement sites, creates a region which is well suited to address the main questions and issues of this thesis. The impact of the Roman presence in this area can be assessed, and there is considerable potential for future excavation which specifically addresses research questions. While many of the temporal problems with the data have been discussed earlier, the high settlement density offers an entry point into understanding Roman impact on the everyday lives of the local population. The confirmation through limited excavation that most of these sites were occupied for at least some period of the pre-Roman Iron Age or Roman period points to this particular area being densely settled during the latter period. This is not very surprising given recent studies on the whole of Britain at the time, which point to a high population and settlement density during this period, see (Dark & Dark 1997; Dark 2000; Hingley 1989, 2004; Hingley & Miles 2002) for a more specific analysis of population density of Britain at the time.

6.3 Prehistoric Framework

While it has been possible to create relatively coherent chronological models of prehistoric settlement for both the Dumfries and Inveresk regions, the same is not applicable to the Newstead region. As has already been discussed this is partly due to the lack of excavation in the area but the situation has also been confounded by the lack

[44] Not that these tribal grouping identified by the classical sources would have needed to be coherent entities as is so often assumed (Breeze 1996).

of datable evidence from the sites which have been excavated.[45] The dating of many of the sites has relied primarily on the presence of datable Roman finds. This has made it very difficult to construct a chronology of the pre-Roman Iron Age and as such the chronological discussion has had to focus primarily on the Late Iron Age and Roman Iron Age transition where finds are more diagnostic. In order to complement the scarcity of information in the region for the pre-Roman period, general trends in chronology of the south of Scotland are considered. This is problematic since the aim of this research has been to move away from generalised large scale models to more regional considerations, which have been shown in both the Inveresk and Dumfries study areas to vary considerably.

6.3.1 Late Bronze Age and Early Iron Age

Settlement evidence in the region dating to the Late Bronze Age and Early Iron Age is very sparse. While there has been a general discussion of the distribution of Bronze Age finds (Dent & McDonald 1997), few sites dating to this period have been excavated. The notable exception is Eildon Hill North where excavation has shown a substantial amount of occupation dates to this period (Owen 1992, pp. 62-7). In addition to settlement on the hilltop, there is evidence for craft production during this period, namely bronze working, (Owen 1992, p. 67). The nature of this occupation is not so obvious given the logistics of supporting a substantial population year round on the site. It has therefore been postulated that the population of the site was augmented during ceremonial or communal gatherings (Owen 1992, p. 67).[46] It is also probable that the earliest phases of rampart construction also date to this period (Owen 1992, pp. 67-71). This highlights the largely communal nature of society in the region during the Late Bronze Age, as the most significant remains are monumental and communal in nature. While both the Inveresk and Dumfries regions produced evidence for unenclosed, palisade and circular enclosed settlements during the Early Iron Age, none of the sites which have been excavated in the Newstead region have produced similar date ranges. Unenclosed settlement is for the most part significantly absent in the local archaeological record, but both these and palisade enclosures may be concealed by later

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[45] While some sites have produced absolute dating evidence (Dunion Hill and Eildon Hill North), radiocarbon dates are by and large absent from most of the sites. This is further complicated because the results of the Newstead Research Project, which currently consist of project reports and grey literature, have not as yet been fully published, and as such any radiocarbon dates if produced are largely unavailable. This renders a large and relevant section of the settlement excavations datable only by the (limited) finds .

[46] See section 7.4.4 for a broader discussion of the role of large hillforts in Scotland during the Late Bronze Age.

enclosures on many sites, and it should not be ruled out that some of the circular enclosures in the region date to this period.

6.3.2 Middle Iron Age

Traditionally settlement in this period has been believed to be characterised by a significant shift toward enclosed sites in Southern Scotland (Armit 1997a; Armit & Ralston 1997; Harding 2001, 2006). Unlike the Inveresk region there is a lack of diagnostic finds and absolute dating evidence for the Newstead area which relate to the Middle Iron Age, but a number of sites are likely to have been constructed during this period. Some of the sites which have been excavated and have produced evidence to suggest that they belong to this period are: Hare Law, Spottiswood, Ashkirkshiel, Cauldshiels Hill, and Ester Hill (see Figure 6-6). However, those which produced finds could equally be dated to the Late Iron Age. Interestingly, the excavations at Eildon Hill North seem to support a phase of abandonment during the Middle Iron Age (Owen 1992, pp. 68-9). Given the evidence from the date range from Dunion Hill (its earliest phase began in the late Middle Iron Age and continued through to the early Late Iron Age (Rideout 1992, p. 115), and it may be surmised that Rubers Law has a similar date sequence), there appears to have been a shift from a single central collective centre to more localised but smaller hilltop sites. These enclosed sites are more substantial in size, evident by the large number of hut platforms at Dunion (which may give some indication of population size), and contain a greater number of occupants than the typical enclosed farmsteads in the region. These sites may have acted as localised power centres, as has been argued for the large enclosure at Torwoodlee (Halliday 1982). However, this argument relies on the assumption that the function of the enclosure was to house pastoral surplus (the proposed mechanism of status maintenance). These two sites would be contradictory in function as it is difficult to see them serving both purposes. This may indicate that there were multiple functions for large enclosed sites occurring at the same time, or that further work needs to be carried out on the Torwoodlee enclosure to determine the level of occupation. The evidence from Dunion of a large, densely settled settlement indicates that there was still a collectivist tendency occurring but that it was substantially smaller than that occurring in the Late Bronze Age at Eildon Hill North.

The discussion so far has ignored the larger trend that was occurring during the period of a shift to smaller enclosed farmsteads, based most likely around smaller kin groups.

While these settlements seem to cluster in what are likely to be larger, interrelated social networks (see for example (Wise 2000) or for a similar discussion in relation to evidence from midland and southern England; (Hingley 1984a, 1984b, 1999; Moore 2007a, p. 44; Moore 2007b), they still represent a shift toward more localised and smaller independent settlement units (see section 6.3.6). This pattern seems to have continued through most of the Late Iron Age with the only significant deviations occurring shortly before the Roman occupation of the area. Yet this may be slightly misleading given the reliance on Roman material to chronologically categorise these sites, so the changes attributed to the late pre-Roman Iron Age could have occurred earlier and the later association with Roman material are demonstrative of a later phase of occupation rather than the initial occupation.

6.3.3 Late Pre-Roman Iron Age and Roman Iron Age

The most significant amount of excavated dating evidence for the Newstead region belongs to this period. This is not surprising given the reliance on 'Roman' finds as dating evidence. Even so, the number of sites producing such material highlights the high level of settlement and variety of site types occurring in the region at the time. Many of the earlier settlement types were occupied in the Late Iron Age with small circular enclosures remaining the dominant settlement type in the region. The lack of Roman finds on the rectilinear enclosure of Ridgewells may indicate that it was Late Iron Age rather than Roman Iron Age in date, but such an argument relies on a lack of evidence of Roman occupation. The Iron Age pottery found on the site does indicate that it is Iron Age rather than Early Medieval (Dent 1993), and given the broad range of dating for rectilinear sites in southern Scotland (see section 4.5) it is possible that the site is of Late Iron Age date. The other two excavated rectilinear enclosures in the area, Hanging Shaw and Lilliesleaf, both produced Roman pottery supporting the view that they were largely a Roman Iron Age phenomenon even if their point of origin was possibly in the later Iron Age (Clarke & Wise 1998; Dent 1994; Marshall 1969; Wise 1998). However, while this new settlement morphology was occurring in the region, circular enclosures continued to be occupied during the Roman Iron Age, which is indicated by the Roman finds from the Newstead enclosure (Frere 1991). Though most of the excavated circular enclosures failed to produce Roman finds, this is not necessarily surprising given that half of them produced no finds at all (Hare Heugh Craigs, Spottiswoode, and Esterhill), and those which did, produced a sparse

assemblage of typically undiagnostic Iron Age material culture (Whitrig Hill, and Cauldshiels Hill) (Cool 2000; Curle 1911; Dent 1992; Ellis 1999; Jones *et al.* 1993).

Whether such evidence can be used to exclude them from the local Roman Iron Age settlement pattern is more problematic given the evidence of dating from Dunion. While all of the radiocarbon dates fall within the Late Iron Age date range, corresponding with the only securely datable artefact (a beehive quern), a few of them, notably the sample taken from house 2, could have been early Roman Iron Age in date and the thermoluminescence dates support a Roman Iron Age range (Rideout 1992, pp. 108-10). The idea that the site was most likely abandoned before Roman occupation rests mainly on the assumption that such a site, if occupied during the Roman period, would have produced 'Roman' finds (Rideout 1992, p. 118). The one fragment of Roman pottery is discounted as contamination, yet interestingly it was found in house 2 which produced both the late radiocarbon date and the beehive quern (Rideout 1992). This all serves to highlight how problematic dating these sites can be, even when there are reliable radiocarbon dates, let alone basing such dating solely on material culture (Burgess 1984, p. 171; Fulford 1985, 1989, p. 82; Jobey 1974b). While it would seem unwise to dismiss Dunion as having continued into the Roman period, it appears to be clear from the evidence that either the site was significantly reduced or abandoned altogether during the Roman Iron Age.

This change is also mirrored at a number of other sites that have been excavated in the region, indicating that the Roman occupation was a time of significant social upheaval. Eildon Hill North is reoccupied, yet the full extent of this occupation is obscured by the debate over an interuption caused by the placement of a Roman watch tower; a similar hiatus is argued to have occurred at Rubers Law (Curle 1905) (see section 6.5). The rise in rectilinear enclosures may also be indicative of a general shift in society at the time. However, the most telling factor may be the construction of the broch at Torwoodlee, which highlights if not the emergence of new distinctive social elites, then a shift to the architectural representation of this status in a more localised manner among pre-existing elites (see section 6.6 for a further discussion of brochs in the region). All of these observations unfortunately rely on the rather sparse excavated evidence, which has focussed largely on the monumental and unique. While such sites have their place in the discussion, it is necessary to consider the more substantial settlement and finds distributions in order to gain a fuller understanding of the impact of Roman occupation.

Having considered the evidence for settlement form and changes through time, specific individual sites will now be reviewed to illuminate more specific and localised trends.

6.3.4 Eildon Hill North Hillfort

There has been a bias in the types of 'native' sites which have been excavated in the Newstead region. There has been a tendency to excavate the exotic (in terms of brochs) and the impressive (most of the large hillforts have had a degree of excavation). This has been to the detriment of smaller rural settlements, and unfortunately has lead to a skewed view of society during the period. Luckily this is being slowly corrected through recent research work and contract archaeology (primarily the Bradford Newstead Research Project). This bias has not been completely negative as the excavations on Eildon Hill North have allowed a greater understanding of these large enclosed hilltop sites (see Figure 6-7). The significance of Eildon Hill North has primarily focussed on its suspected role as a Late Iron Age *oppidum* and as a possible tribal centre for the *Selgovae* (Owen 1992). While both of these roles are now in doubt, along with its argued destruction and abandonment in the early Roman period, Eildon Hill North appears to have played an important role during the Roman period. The reoccupation of the site during the Late Iron Age or Roman period is also mirrored at Traprain Law (see section 7.5.3). Roman finds from the site can be dated broadly to the 2nd to 4th Centuries and consist of two brooch fragments, three glass armlet fragments and four sherds of Roman pottery (Owen 1992, p. 61). While the area excavated was of limited size, it is still interesting that the finds fall into the late to post period of Roman occupation for the area, indicating that this second phase of occupation could have been an entirely Roman or even post Roman occurrence (see Figure 6-8). The majority of the pieces are similar to those found on Traprain Law (Owen 1992), although the number is far smaller and it is difficult to draw too close a comparison given the limited amount of excavation. While the hillfort probably played a factor in the location of Newstead fort, it is hard to assess the level of occupation during the Roman period. The possible role of Eildon Hill as a symbolic centre for the local population during the Iron Age and Roman period is something which should not be dismissed.

6.3.5 Lilliesleaf Enclosure

Discussion of the rectilinear enclosure of Lilliesleaf is important for several reasons: it is the most substantially excavated rectilinear enclosure in the area and has produced a significant number of Roman finds. Lilliesleaf can potentially illuminate questions

surrounding rectilinear enclosures in the Newstead region. The site is about 6 kilometres to the south of Newstead fort and 6-7 kilometres west of the nearest Roman road, falling well beyond the fort's immediate environs and to the south of Eildon Hill North (see Figure 6-6). The site was identified in the late 1980s by aerial photographs. During the early 1990s the site underwent systematic fieldwalking and was subject to occasional metal detecting. In 1993, it was chosen for systematic survey by the Bradford Research Project, who conducted a geophysical survey of the enclosure. In 1998 it was excavated by Simon Clarke and Alicia Wise, and though the site has yet to be fully published, there have been a number of interim reports (Clarke & Wise 1998). The enclosure is 65 by 70 metres in diameter, the ditch is 4 metres across and 1.25 metres deep and the bank which falls inside the ditch while ploughed down is about 4.5 metres across (Wise 1998). The internal area contains at least one round house and a cobbled floor which is typical of enclosure surfaces in the area (Dent 1994; Wise 1998). The site contained a number of Roman artefacts including two Roman coins, two brooches (one trumpet), a piece of glass vessel and a number of sherds of Roman pottery (a sherd of decorated samian, amphora and some coarse ware) and nails, as well as non-Roman finds including a sherd of Iron Age pot, slag and animal bone (Dent 1994; Hunter 2001; Wise 1998).

The finds, while numerically meagre, show a broad range of types. There is a preference for personal items of display but also the incorporation of Roman goods into the more mundane aspects of daily life. The presence of nails, (normally rare on 'native' sites) is interesting but it is difficult to assess how they were utilised on the site: as nails or as a source of raw materials (Hunter 1998, pp. 336-7). The overall picture gleaned from the excavated evidence is of a small farmstead, largely self sufficient in regard to the limited amount of imported finds, but with ties to a larger trade network through which they were able to acquire a number of exotic goods. Given that most of these goods were portable display items they may have been acquired through personal interaction rather than trade. This does not preclude the site from interacting economically with the local Roman garrison.[47] To what extent this site can act as a model for other rectilinear enclosures in the region is difficult to assess given the limited amount of excavation, yet

[47] The Roman finds, while indicative of exchange with the garrison at Newstead, could also represent a more direct connection. While it would be pure speculation, there is the possibility that members of the community served as auxiliary recruits, bringing Roman items back with them or that the site itself, if it was of Roman period construction rather that Late Iron Age, was founded by auxiliary soldiers brought in from other areas of Britain.

it clearly indicates that such sites were not necessarily economically isolated and may have been tied into the Roman economy during the period.

6.3.6 Settlement Patterns in the Newstead Region

Given the lack of overall excavation, in order to better understand local society in the Newstead region, the distribution of local settlement has acquired greater significance. The three main distributions discussed are that of all enclosures (see Figure 6-9), circular enclosures (see Figure 6-10), and finally rectilinear enclosures (see Figure 6-11). It is these last two that offer the greatest amount of interest given that, while not mutually exclusive, they at least appear to offer some level of chronological differentiation. The discussion of the statistical evaluation of these settlement patterns is addressed in Appendix V. This is not the first analysis of settlement patterns in Newstead region, since both Jobey (Jobey 1982a) and Owen (Owen 1992) have noted the large number of hillfort sites between the Tyne and Forth rivers. One factor that has directly contributed to this high density of hillforts in the region is the topography of the area (see Figure 6-7), but this alone cannot account for such dense clustering as other areas in both Scotland and England with similar upland environs lack this density of hillforts. While hillforts dominate the majority of the discussion in this area they are not the sole settlement feature. There are numerous examples of enclosed settlement that cannot be classified under the heading of hillfort. Many of these enclosures bear similarity with the hillforts in size and layout yet lack an elevated location. While the rectilinear enclosures are morphologically dissimilar, the full significance of this observation may be academic rather than relating to any real difference in social organization, occupation or function. In regards to the Newstead region, a loose classification between enclosed sites as circular or rectilinear in nature has been adopted, with little emphasis placed on the distinction between small hillforts and circular enclosures.[48] This has enabled broad settlement patterns to emerge and limited the bias of topographic elements and classification systems. What is interesting regarding the Newstead region in comparison to other areas is the overall lack of unenclosed settlement. Without extensive excavation on these sites, however, it is unlikely (if not impossible) to determine whether the enclosure represents only a phase of the total occupation, with other possible unenclosed phases, or whether the settlements were enclosed during their entire occupation (Haselgrove & McCullagh 2000)(see Chapter 7

[48] Haselgrove has discussed the often trivial distinctions drawn between the two, which often relates to no more than the presence of a hill (Haselgrove 2002).

for a further discussion of this point in relation to the excavations in the Inveresk region). Many of the larger hillforts that have been excavated in southern Scotland have produced unenclosed as well as enclosed phases, yet given the nature of these specific sites and the often varying results from the different excavations, it would not be practical to apply such sequences to the more numerous and smaller enclosed farmsteads (Haselgrove & McCullagh 2000). Enclosed settlement in the region is far easier to identify than unenclosed settlement. They leave physical remains in the upland areas and substantial cropmarks for identification in the lowland agricultural regions.

Wise (Wise 2000) has taken discussion of settlement in the region beyond the debate about the distribution of hillforts by focussing specifically on the distribution of circular and rectilinear enclosures in the Tweed River valley. Here Wise (Wise 2000) noted that circular settlement tended to cluster in small discrete groups and that often each cluster of circular settlements had an associated rectilinear settlement. The conclusion is drawn that these clusters represented local kin groups and that each grouping was part of a sophisticated settlement hierarchy dominated by the rectilinear enclosure, which is supported by the finds evidence from Lillieleaf (Clarke & Wise 1998; Wise 1998, 2000). While such a model is not without merit, there are some problems with such a simple view of group dynamics. First, it relies on the assumption that the circular and rectilinear enclosures are contemporary, and while the lack of excavation makes this hard to assess, it should not be assumed to be the case. Second, it fails to explore the full potential of kin group relations. In order to better address these issues it is important to consider whether the observed phenomenon in the Tweed valley is applicable within the larger region around Newstead.

When the overall distribution of circular enclosures is studied it becomes apparent that there is a tendency to cluster in discrete groups. This has been noted as a phenomenon that occurs elsewhere in southern Britain (Hingley 1984a, 1984b, 1996b, 1999; Moore 2007a, p. 44), where such groupings have also been associated with kinship patterns and group dynamics. This is potentially revealing in the Newstead area as it suggests that local society was grouped into small communities within the larger social landscape. These small but potentially socially sophisticated communities would have formed the basis of Late Iron Age society in the region when the Roman occupation occurred. While Wise's observation concerning the clustering of circular enclosures in the Tweed valley is also applicable to the larger Newstead region, the argument that each cluster

has an associated rectilinear enclosure does not appear to apply in the same manner. While rectilinear enclosures are more dispersed than the circular distribution, they do not seem to correlate closely with them (see Figure 6-12). Often they are found in areas devoid of circular enclosures and when they are grouped they appear to occur in pairs. This is best illustrated by comparing the kernel smoothing results of the enclosure distributions for the region (see Appendix Figures 28-30). The argument that rectilinear enclosures represent elite settlement does not seem substantiated on this evidence; instead these sites may form a completely new pattern, perhaps reflecting an expansion of the existing settlement pattern with a different enclosure morphology or even the breakdown of existing social networks (see Figure 6-13). If the majority of circular enclosures continued in occupation during this period, then these later rectilinear settlements may have had to utilise land on the periphery of existing social clusters and as such may not have been as tied into these networks. If on the other hand many of the circular enclosures were no longer occupied it could represent a shift in the local demography of the region.

6.3.7 Rivers and Settlement in the Newstead Study Area

Wise (Wise 2000) also discussed the relationship between settlements, rivers and lochs in the Tweed valley (Wise 2000). The relationship was twofold. First, it is noted that circular enclosures not associated with clusters "are arranged in linear fashion along major water ways" (Wise 2000, p. 96). Second, that settlements in general are spatially correlated with rivers and lochs, and as such have "perhaps symbolic associations with nearby bodies of water" (Wise 2000, p. 97). Unfortunately, there are no specifics on how this spatial relationship was determined or tested, yet the overall argument correlates with current theories on the British Later Iron Age and Roman period involving votive depositional practice and watery cults (Aldhouse-Green 2004; Bradley 1988, 1998a, 2000; Cavers 2006; Fitzpatrick 1984; Willis 2007).[49] It was for this reason, given its potential to illuminate ritual practice in the Late Iron Age of the region, a large-scale analysis of the relationship between rivers, lochs and settlement was undertaken in the study area, to test if such a relationship existed within the entire survey region.

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[49] Though these arguments are about ritual practice and there is no conclusive reason why ritual association with water contexts would have any bearing on settlement distribution.

While the visual distribution of settlements in relation to rivers and lochs (see Figure 6-14) in the area seems to suggest that there is both a spatial correlation between them and that settlement is spaced in linear fashion along these rivers, disappointingly this is in fact a visual illusion.[50] Re-assessing Wise's map (see Figure 6-15) would seem to indicate that a similar illusion is occurring, but without the specifics of her study it is difficult to assess conclusively. Statistically there is no strong correlation between the enclosures, rivers and lochs (see Table 6-1). Patterns in settlement spacing along rivers is most likely caused by topographic factors or constraints, which, while related to river valleys, do not present any evidence for an association with the rivers themselves. These findings are unusual as not only do they contradict the Tweed valley patterns, but given the agricultural nature of these settlements, it would be expected that the people occupying these sites would both wish to be near a viable source of water, and also take advantage of the agriculturally rich alluvial gravel plains.[51]

This lack of spatial correlation between settlement, rivers and lochs in the Newstead region does not necessarily invalidate the argument that such locations had a symbolic or ritual function. Rather it suggests that such a function had little bearing on the larger settlement distribution pattern in the area. The Tweed River has produced little in the way of substantial votive offerings. Most of the hoards in the immediate area have been found in context with the landscape rather than in water, though some are associated with possible springs or wells. This could be due to a lack of dredging in the Tweed, unlike the Thames or the Tyne.[52] It is worth noting that large metalwork hoards in southern Scotland occur primarily in lochs and bogs (see Figure 6-16), rather than rivers, so standing water may potentially have been a ritual focus in the overall area (Haselgrove & Hingley 2006, pp. 150-2). This is also mirrored in the Dumfries study area where significant acts of deposition often occur on crannogs (see Chapter 8). So,

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[50] The cause of this is most likely a by-product of dealing with maps and GIS. Maps give a top down view. When combined with plotted sites this leads the viewer to locate objects in relation to other features, on the maps. Given that most archaeological maps try to reduce modern features what is most often left on the map is topography and rivers. This leads to a trick of the eye where sites are seen in relation to rivers and topography, often subliminally causing the viewer to draw relationships between site location and these features when no such relationships exist.

[51] This is another unexpected finding given that such drift geology is normally a substantial source for cropmarks (Bewley 1994). It was expected that if anything there would be survey bias toward such regions. This could represent a bias in detection, or possibly indicate that the area around Newstead was so densely settled that significant occupation occurred on more marginal land.

[52] Though this does beg the question of whether the strong relationship noted in the south between metalworking and watery contexts is the by-product of both increased survival and retrieval rates, rather than an overall preference for such deposition. It should be remembered that watery contexts are only part of an overall ritual practice of deposition in the Late Iron Age (see for example Aitchison 1988; Hingley 1990).

while such contexts should be seen as potential focal points of ritual activity and social hierarchy, further work is needed to assess whether they played a prominent role in relation to general settlement practice in southern Scotland.

6.4 Roman Occupation

The Roman occupation of the Newstead region can be divided into three broad periods: the Flavian period, followed by occupation during the Antonine period, and brief re-occupation of Newstead fort during the Severan period. The Roman sites occupied during the Flavian period consisted of the forts at Newstead, Oakwood and the small fort of Cappuck. The Antonine period saw the re-occupation of both Newstead and Cappuck and the construction of the fortlet at Oxton. In this regard, Newstead fort can be seen as one of the longest occupied in Roman Scotland and, as is now recognised, had an accompanying *vicus* (Clarke 1997; Clarke & Wise 1999). Its continued role as an outpost fort after the Antonine withdrawal until at least AD 184 meant that there was a fairly short period of abandonment before its re-occupation in the Severan period, along with Cappuck (Breeze & Dobson 2000, pp. 134,40-43). This period of occupation in the region, was paradoxically both incredibly substantial in its impact yet left remarkably little material trace on the local population.

6.4.1 Roman Infrastructure and Settlement Patterns

While the study of Roman forts and roads has been substantially covered in relation to the northern frontiers (Breeze 1982; Breeze & Dobson 1976; Frere 1980 ; Hanson 1987), there has been relatively little consideration of how these sites and the overall Roman infrastructure related to local settlement (but see Hanson & Maxwell 1983; Higham & Jones 1985). The placement of such infrastructure would have been dependent on multiple factors, ranging from logistical considerations to the defensibility of such sites. Yet surely one of the key considerations of such placement would have been the nature and distribution of the local population, given that the overall goal of such occupation was to exert militarily control across the region with the eventual aim of incorporating the area into the Empire. The classical texts are vague on the motivations behind fort placement as is highlighted by Tacitus in *Agricola*: "It was noted by experienced officers that no general had ever shown more judgement in choosing suitable positions, and that not a single fort established by Agricola was either stormed by the enemy or abandoned by capitulation or flight" (Tacitus *et al.* 1970). There is no explanation of

what a 'suitable position' would have consisted of. Even if local settlement patterns are considered to have had little impact on military decision making, which seems increasingly unlikely in light of the analysis undertaken, it is important to address this issue to fully understand the impact of Roman occupation on local demography.

As discussed earlier, the settlement patterns in the Newstead region highlight that they were fairly densely settled. While there are notable areas of absence these can mostly be accounted for by subsequent land use and recovery factors (See Chapter 5 for further details). It has been noted that settlement in the region has the tendency to cluster in certain areas, which presumably indicates a highly settled landscape in the late Iron Age punctuated by small zones of significantly higher population. When this social landscape is compared with the Roman infrastructure, a few notable trends emerge. Overall settlement and circular enclosures have a higher occurrence closer to Roman roads and this relationship gradually declines the greater the distance (see Figure 6-17 and Figure 6-18). This would seem to indicate that Roman infrastructure in the region was placed in areas which had a higher density of settlement, indicating that the local settlement pattern played an important role in the placement of such infrastructure. Yet it is difficult to assess if such an occurrence was intentional or merely coincidental in that both occupied economically viable land. Indeed it may be that the relationship was the by-product of placement of the fort at Newstead near the large hillfort of Eildon Hill North. If the hillfort acted as a regional social central place at the time then it is reasonable to expect a greater amount of settlement within the environs of the site, and therefore a higher correlation between the Roman infrastructure and local settlement. This issue is further complicated by discussions of Roman roads in southern Britain and Italy, where it has been argued that Roman roads have a varied relationship with pre-existing route ways and field systems, sometimes respecting and utilising them, sometimes cutting them or even ignoring them completely (Petts 1998; Williamson 1987, 1993; Witcher 1997). It is entirely possible that the relationship between the Roman infrastructure and local settlement could also have been caused by Roman roads making use of earlier local routes.

While considerations as to the extent of intention in the placement of this infrastructure are of great interest, the end result for the local population is less debatable. By being spatially closer to a larger proportion of the local settlement, the overall impact of Roman occupation in the region would have had a more substantial impact on the daily

lives of indigenous people. This is highlighted to a greater extent when rectilinear enclosures are considered. As has been discussed, these enclosures were constructed during the Late Iron Age and throughout the Roman period (Chapter 4 for a general discussion and section 6.3.3 in this chapter of a specific discussion of the Newstead examples). So while some may predate the occupation of the region they are very much an overall feature of the Roman Iron Age. The distribution of rectilinear enclosures has an even stronger spatial relationship with Roman infrastructure than overall settlement distribution in the Newstead region (see Figure 6-19 and Figure 6-20). In fact over 50% of the rectilinear enclosures in the area fall within 3 kilometres of either a Roman site or road. While such a result could be biased by a tendency to specifically focus on these areas (and on rectilinear earthworks) while searching for potential 'Roman' sites (see Chapter 5), similar results occur in other areas which have been more systematically studied (see for example Chapter 8). Also, areas outside of this immediate zone have produced cropmarks of numerous circular enclosures. It would seem strange that rectilinear enclosures would have been routinely overlooked. It is far more likely is that this figure represents a fairly accurate portrayal of rectilinear distribution in the region. The rectilinear distribution does more than just strengthen the argument that Roman infrastructure occurred in the densely populated regions of the study area. Given their chronological range, many would have been constructed during and after the Roman occupation. Therefore it seems likely, given the stronger spatial relationship, that either the Roman infrastructure or some factor relating to both, contributed to their location. The possibility that the occupants of these settlements were utilising the road network in this area and even trading directly with the Roman garrisons could account for the apparent frequency with which 'Roman' finds are recovered at these sites.

6.4.2 Roman Finds Distributions

Roman material culture in the Newstead region occurs at a variety of locations. Those which do not occur on definite 'Roman' sites can be broadly grouped into three types; finds from settlement contexts, hoards in the landscape and stray finds which occur throughout the area. Stray finds are often problematic in that they frequently have little contextual evidence and as such cannot be confidently assigned a specific cultural connotation. While this acts as a limitation to the overall significance of what can be fully ascribed to such material, (in regard to their origin before deposition; whether or not such material is the by-product of casual loss or relates to specific deposition practices) the distribution of the material does give an indication of both the availability

and spatial extent of such goods in the region. By analysing the distribution of 'Roman' material it is possible to more fully appreciate the exchange mechanisms which account for visibility patterns.

This is not to say that analysis of the distribution of goods will lead to a complete understanding of the mechanisms involved, as the full complexities of exchange are often bound up in social relations which are largely invisible without a full understanding or appreciation of the larger societal structure (e.g. (Saitta 2000)for a discussion of exchange in prehistory, and (Moore 2007a, pp. 48-54; Moore 2007b) for a more specific discussion of these ideas in relation to the Iron Age of southern Britain). However, such analysis does offer a way to begin to address these issues by creating a framework in which to provide a better understanding of the exchange of 'Roman' material culture. The distribution of these finds seems to be the by-product of two significant trends in the Newstead region which highlight the complexities involved in understanding exchange in the Roman period. The first trend is that the overall occurrence of 'Roman' material culture is largely associated with Roman infrastructure (see Figure 6-21). So a closer spatial relationship with forts and roads seems to increase the likelihood of 'Roman' finds being made (see Figure 6-22) This, on one level, would seem fairly straightforward. Yet it does support the argument that the Roman military was the source of 'Roman' material in the region, which until now has largely been supported by analysis of the date range and form type of Roman pottery (Erdrich *et al.* 2000; Macinnes 1989).

This relationship with Roman infrastructure is even stronger for the coin evidence, which appears to have had a closer association with Roman forts (see Figure 6-23). This may relate to the perceived usefulness of these objects within local society (see Figure 6-24 which shows a non-cumulative chart of the relationship between Roman coins, finds and Roman infrastructure. The spike within 1000m clearly highlights this). This supports the idea that much of this material was either lost by soldiers, exchanged directly with the Roman garrisons or with those utilising the Roman road network. Hutcheson (Hutcheson 2004, 2007) has highlighted a similar pattern occurring in Norfolk between Roman roads and 'native' metalwork, specifically horse harnesses. This could either highlight a connection between Roman roads and areas of metalwork deposition or, more probably, that these roads were utilised by the local communities in Norfolk.

This connection with the Roman infrastructure accounts for the general pattern of distribution in the Newstead region. However, if the quality, and to a greater extent the quantity, of goods is taken into account, a second trend emerges. Certain sites, mostly settlements, have a larger amount of 'Roman' material (see Appendix VII Roman material culture charts). What is interesting about these groups of material is that spatial considerations in relation to the Roman infrastructure seem to have played a nominal role. They are often located in areas with less general Roman material. While the pattern has been influenced by the level and quality of excavation in the area, as it is primarily well excavated sites which produce such quantities of material. This excavation bias is not the sole factor given that sites which date to this period have produced either none or very little of such material. Rather, it seems that some sites had significantly more access to 'Roman' material and do not conform with the overall distribution pattern for Roman material in the region. Indeed, many of these sites fall between forts or outside of their immediate spheres of influence. Therefore, spatial considerations did not play a fundamental role in the mechanisms of acquisition on these particular sites. While this adds a new dimension to understanding of exchange networks in the Newstead area, it also highlights the complexity of assessing them.

If Roman material relates to the status of the occupants, then the sites with significant amounts of material could be acquiring these items through direct exchange either by trade or some social process such as gift giving.[53] Such a mechanism would account for the lack of spatial relation due to the fact that such distances would be for the most part immaterial with regard to this exchange, as it would represent a specific social interaction. Another possibility is that these assemblages of 'Roman' material represent accumulation points of such goods within a wider social network. While this interpretation may be applicable to the hoards found in the wider landscape and such substantial sites as the large enclosed site Eildon Hill North, it is more difficult to see the material-rich settlement sites facilitating such a role. It has been argued that the material played an important role in the maintenance of Roman Iron Age hierarchy in southern Scotland, acting as display items for the local elites and is redistributed from these sites to strengthen social bonds (Hunter 2001; Macinnes 1989). In the Newstead region the spatial distribution would suggest that little redistribution from these sites

[53] The possibility that some of these goods were acquired in a more violent manner such as raiding remains a possibility, even if such ideas have become unfashionable in recent years.

occurred, as one would expect a pattern of finds which centres around and radiates out from specific high status sites. This, however, does not seem to occur, as the primary distribution is centred on the Roman infrastructure. This brings into question the models of centralised redistribution, but it should also be acknowledged that such patterns may be currently indiscernible due to limited excavation. Nor does this pattern necessarily indicate that such material did not act as a status indicator, just that the social hierarchy would have been maintained through mechanisms which are more difficult to detect by archaeological means, for instance agricultural and pastoral control, or specific social and cultural practices.

While much of the 'Roman' material in the Newstead region can be temporally associated with the occupation of the forts in the region and therefore be seen as a by-product of occupation (Macinnes 1989), such an interpretation has been based on the dating of material within the forts themselves. Furthermore it does not take into account the consideration that the acquisition of these goods within the local communities may have occurred within a different temporal framework (i.e. just because a pot is Flavian in date does not mean that it was acquired by 'native' settlements during the Flavian period). The coin evidence allows a unique insight into this question as it provides a relatively secure *terminus post quem* with which to address this issue. By dividing the coin groups into those which could have been deposited during occupation of the Newstead area and those which would have had to have been deposited after such occupation, it becomes clear that 'Roman' material culture was indeed still available after military withdrawal. A significant 40% of the coin occurrences were post Roman occupation compared with 60% that were probably brought in during the occupation. The post-occupation pattern of coin deposition has an even stronger spatial association with the pre-existing Roman infrastructure indicating that the roads and fortifications appear to have continued to play an important role after the abandonment of the forts (see Figure 6-25). The final category of hoards conforms with the norm in southern Scotland, since these are normally found in areas of natural (and most likely ritual) significance with two of them focused at the base of Eildon Hill North. One of the others is located at King's Haugh, which is a larger hillfort and very likely of significant cultural importance.

So far much of the discussion has focused around broad patterns within the overall study area. In order to consider further how this material was being utilised in local

society, it is necessary to focus on specific excavated examples (see 6.3.4 and 6.3.5). The exchange of 'Roman' material in the area should not be seen as the result of a single mechanism, but rather to have occurred within a variety of social contexts. While the overall distribution of such goods in the region was connected spatially with the Roman infrastructure, the acquisition of goods was not entirely dependent on it. Indeed the non-Roman sites richest in 'Roman' material culture seem to have had only nominal connection with it. It does raise the possibility that there were many forms of exchange occurring and that no single model will necessarily account for all the data. This is an observation that Hodder (Hodder 1976; Hodder & Orton 1976) acknowledged long ago while trying to model modes of exchange.

6.4.3 Isotropic Cost Surface: Measuring Imperialism

The discussion of both settlement sites and finds has so far dealt with primarily analysing the spatial relationship between these features and the Roman infrastructure, namely, known Roman roads. While this carries with it implicit implications on social relations, exchange mechanisms and the impact of the Roman infrastructure, it is rather totalising and abstract in nature. It is possible to add a more human element to the discussion of Roman Imperialism in the area by dealing specifically with the localised impact of the Roman garrison at Newstead. In order to achieve such an approach it is necessary to incorporate data which is not wholly archaeological in nature and is based on the assumption that practical constraints would have played a role in the Roman garrison's ability to control, observe and monitor a region. So rather than seeing the frontier in terms of a large band of territory between the Hadrian and Antonine walls, the frontier can be seen in terms of spheres of influence which radiate out from garrisons (see Figure 6-26). Thus, influence and control would be constrained by the practicalities of the local terrain, logistical issues and the time required to patrol specific areas. This is not to argue that these were substantial limits on the Roman occupation. While time distance cost or large rivers may offer slight barriers to small patrols, they are often relatively insignificant to larger campaigning forces. Any area around Newstead would have been accessible if there was a substantial reason to justify it (see Figure 6-27). Rather, what is being assessed is the day to day movement. Certain areas would have been more readily accessible than others, so logically the local population is more likely to observe the Roman impact and interact with the Roman garrisons closer to Roman roads and forts. Therefore the level of their ability to control and monitor a

region will be influenced by these practical considerations. In this way it is possible to map Roman interaction in a more refined and specific manner.

While the level of control will be dependent on time-distance factors, it is not so easy to discuss resistance in this manner. Areas outside immediate control may display less signs of Roman influence. However, this cannot be seen as necessarily resistance to Roman occupation as it may simply reflect the more practical aspect of less overall impact in these areas. Rather, resistance is more likely proportional to the level of Roman control and in this regard it should be seen as an aspect of or a reaction to Roman Imperialism. The importance of considering the distance from sites, in regard to the level of impact that they had in the Roman period, has been highlighted recently in relation to the impact of Roman small towns in Northamptonshire. A distinction has been noted between settlements falling within a 5km buffer of small towns compared to those which fall outside of it (Taylor 2001, pp. 57-9). The amount of Roman material was far greater within these 5km buffers indicating that spatial relation had a significant impact on the distribution of goods as well as on general acculturation. These observations greatly enhance the understanding of the role and impact of small towns in the region during the Roman period. There has not been a comparable analysis of such considerations with regards to Roman forts in the north, yet this approach has the potential to greatly increase the understanding of the impact of these features in the area. This kind of distance analysis can be refined even further by factoring time into the cost analysis (see discussion of anisotropic cost analysis, Chapter 5 and Appendix IV). This added dimension allows the existing archaeological information to be viewed in a constructive new manner, as it permits the construction of zones based on more than just simple distance measurements. The results of the isotropic analysis mirrored the general trends which were noted by the more arbitrary distance studies. The method is likely to have a far greater potential, especially if it was applied to areas with greater amounts of material or those which have been more fully surveyed.

6.5 Signal Towers?

While discussing the concepts of Roman control and movement around forts it is pertinent to mention the phenomenon of Roman signal towers. There have been two such signal towers identified in the Newstead region: one at Rubers Law (Curle 1905) and another at Eildon Hill North (Steer & Feachem 1954)(see Figure 6-28). The

Newstead region is unique, in comparison with the other two study areas of this project, in the occurrence of these features. There are numerous other examples from the Gask ridge (Robertson 1974; Woolliscroft 2002)[54] and the German limes (Woolliscroft & Hoffmann 1991). While both the signal towers at Eildon Hill North and Rubers Law are potentially important in illuminating aspects of Roman communication and frontier control, they are both problematic with regard to the authenticity of their classification.

The suggestion of a signal tower on the summit of Rubers law was first made by Alexander Curle (1905) after a survey of the hillfort defences (see Figure 6-29). Its identification was based on the discovery of a number of stones bearing Roman masonry marks that had been incorporated into the rampart of the hillfort (Curle 1905, pp. 225-8). It was concluded, given the absence of Roman features around the base of the hill, that the Roman masonry must have been robbed from a Roman building on the summit (Curle 1905). Since Roman features on hilltops were seen as rare by Curle, his only conclusion was that there had been at some time a Roman signal tower on the summit of the site which would have communicated with the Roman fort at Cappuck (Curle 1905, pp. 225-8)(see Figure 6-30). This idea seemed to find general favour during the early 20th Century and has remained largely unquestioned in frontier studies. It was so firmly believed that Feachem and Steer (1954) stated it as a fact. However, the identification of a signal tower based solely on the presence of Roman masonry in a hillfort rampart is fairly suspect, especially in the light of the further identification and research on the reuse of Roman stonework in the post-Roman period which has occurred since this claim was made (see Eaton (2000) for a discussion of the reuse of Roman stone). There is no reason to exclude the possibility that the Roman masonry was specifically brought to the site in the post-Roman period. Even the distance from Cappuck would not have been prohibitive of such an endeavour. The lack of similar stone signal towers on other sites in southern Scotland would also indicate that the masonry most likely came from another source. In light of this, there is no compelling reason to accept the legitimacy of the signal tower at Rubers Law.

The evidence for a signal tower on the summit of Eildon Hill North is more convincing, as the site is still in situ and excavation has been carried out on the feature (Steer & Feachem 1954)(see Figure 6-31). Unlike the tower at Rubers Law, the Eildon signal

[54] Wolliscroft's (2001) work on military signalling is of great interest but unfortunately has the tendency to overstate the role of logistics in fort placement, failing to take into account the relationship between Roman infrastructure and the local population.

tower was a timber structure and was assumed to be similar to the type of structure identified along the Gask ridge (Steer & Feachem 1954). It was the 1950 Royal Commission survey of the hillfort that had ignored the circular enclosure on the summit of the hill which prompted Feachem and Steers' interest (Steer & Feachem 1954). This lone feature was peculiar as it lacked a cairn or barrow in the centre. It was decided that the most likely explanation for it was a Roman signal tower in the Gask tradition, and to test this hypothesis an excavation was carried out between 1952 and 1953 (Steer & Feachem 1954, p. 203).

This is where the interpretation becomes complicated due to the fact that the excavators had already made the tentative identification before excavation, and all subsequent results were then viewed with the assumption that the site was indeed a Roman signal tower. The site consisted of a circular ditch which was "rock cut and measured 7ft. in width by 10-16 ins. in depth" (Steer & Feachem 1954) with an entrance on the north side (see Figure 6-31). In the centre of the enclosure there were a number of post holes, some of which were discounted as being modern. The remaining six were seen as supports for a square feature which was argued to be similar in size and shape to other signal towers, but unique in that it has six supports rather than the typical four (Steer & Feachem 1954). Only a small area of the centre was excavated, so it is possible that other post holes were missed and it should be noted that without a complete excavation of the area it would be impossible to rule out that there were more of these features and that they could have related to a structural sequence. This would not necessarily support the hypothesis of a signal tower.[55] The finds from the excavation were limited but contained a number of Roman and 'native' objects. The form of the signal tower was seen as being indicative of a Flavian date. The only datable find was a coin minted in AD 116-7 but, since it was un-stratified, it was discounted as being a reliable date indicator. The other finds consisted of several fragments of Iron Age pottery, a single fragment of Roman coarse pottery, and four pieces of Roman tile. The Roman tile was seen as lending the greatest amount of support for the presence of a signal tower. While the presence of Roman tile would normally be indicative of a Roman feature, it is not unknown from 'native' enclosures.[56] The evidence was claimed to support their initial hypothesis, that the signal tower was constructed in the Flavian period and that a later

[55] There may, for instance, have been multiple round houses within the enclosure which would have accounted for the post holes. The excavators were fixated on identifying a square signal tower and as such may have ignored and down played the alternatives.

[56] The Great Park sites in Northumberland contained a fragment of Roman tile (Nick Hodgeson pers comm.).

stone built tower was present on the site in the Antonine period, and that the towers would have relayed information to both Newstead and Oakwood (Steer & Feachem 1954). It was also concluded that the hillfort would have been largely abandoned at the time of Roman occupation, but as Breeze (1982) notes such an argument chooses to ignore the second century pottery found at the hillfort. The lack of the stone tower from the Antonine period was seen to be the result of robbing of the stone (Steer & Feachem 1954). By the logic employed for Rubers Law, one would then expect this purloined masonry to be incorporated into the hillforts defences, yet there is no evidence of this. So the presence of the Antonine stone tower is the result of flawed speculation. This also brings into question the interpretation of the enclosed feature as a Flavian watch tower. While this interpretation cannot be discounted, it should be treated with caution, as there are other possible explanations. For example it has been suggested that the site was a Romano-British temple (Dent & McDonald 1997), though the lack of finds evidence would make this a problematic suggestion. Another possibility is that it was an enclosed settlement on the hillfort summit, a phenomenon which is not as uncommon as Feachem and Steer (Steer & Feachem 1954, p. 203) suggest.

6.6 Lowland Brochs

Any discussion of local settlement in the Newstead region must address a detailed examination of the phenomenon of lowland brochs (see Figure 6-32). While much has been published on these architectural features (see Armit 2003; Macinnes 1984a; MacKie 1969, 1971, 1975, 1982; Piggott 1951) they still pose interesting problems in regards to society at the time of the Roman presence in the north and the question of local interaction with the Roman military. While this discussion will not go into an in-depth analysis of the evidence from all the lowland Brochs (see Armit 2003; Hingley 1992b; Macinnes 1984a; MacKie 1969, 1975) it is necessary to discuss two brochs which lie within the Newstead study area; these being Bow (Midlothian) and Torwoodlee (Selkirkshire). Despite the fact that they are located in two separate modern administrative districts, they lie in close proximity (see Figure 6-33). Both have been excavated, in the case of Torwoodlee more than once, and both have produced 'Roman' finds. It is of interest how much work has been carried out on these sites compared to other settlements in the region. The brochs as a settlement type in the Newstead area represent 0.46% of the overall settlement total contained within the study catchments, yet they represent 11.76% of all excavations on local settlement in the area (see Figure

6-34). Macinnes (1984a) has pointed out the tendency for archaeologists to focus on the exotic and how this has led to an over emphasis on the lowland Brochs. Given that both brochs were first excavated over a hundred years ago, until recently they dominated a much higher proportion of the excavated sites, which has lead to a greater imbalance in the understanding of society at the time. Bow and Torwoodlee (see Figure 6-35 and Figure 6-36) were first investigated in 1890 and in 1891 with the subsequent findings being published by Curle in 1892(1892). The sites revealed a significant amount of Roman material and this was used primarily to date them. The subsequent excavation by Piggott in 1950 focussed on Torwoodlee; his primary intention was to discover the temporal relationship between the broch and the hillfort within which it is located (Piggott 1951).

Early literature tended to place the lowland broch within the model of northern invaders or northern mercenaries, focussing on the structural characteristics as a cultural trait which could only arrive through the migration of people rather than ideas (Curle 1892; Piggott 1951). This sat well with the predominant culture-history view in prehistory at the time as well as fitting into expectations of Roman military archaeologists, who liked to pigeon-hole the brochs into well defined chronological scales which could be used to subsequently support their views of interaction from the literary sources. As such there was a tendency to argue that these sites were late 1st/early 2nd century Roman period but were cast down in the Antonine period after the recorded 'troubles'. There has been a consensus that there is evidence for deliberate disruption of both the Torwoodlee and Bow brochs from the evidence of a hasty toppling of the walls and infilling of the ditches. The problems with both these views have been highlighted by Macinnes(1984a), who argues that we need to study lowland brochs within the larger context of settlement of the time. As such there is no need to view them as the products of migration and they can be better understood within the local contexts as an evolution in settlement which maintains spatial elements in common with other settlement of the period, such as an emphasis on circular form and, in the case of Torwoodlee and Bow, a south east orientation of the entrances. While it is true that they need not be seen as abnormal within the general social organisation of the time, it should be kept in mind that they are larger than round houses and may represent social organisation closer to an enclosure, or as has been argued by Hingley (1992) a substantial house. In addition to this they represent a building tradition that while comparable to other examples of dry stone building in the south, are still very much a northern phenomenon, and it would be naïve

not to acknowledge that the occupants of the lowland broch were aware of this fact. This will be discussed later after a review of the evidence in the Newstead study area.

It is interesting to note that in what is a sizable catchment area (20km radius), there are only two brochs and both lie within close proximity (within 3km). They are also on opposite sides of Gala Water within the same river valley. The Gala Water river valley is interesting for two other reasons. First, it contains very few Roman features; aside from sporadic finds, there is only a single marching camp (see Figure 6-37). Second, and more curious, given the large number of circular enclosures and hillforts present in the region, it contains only one rectilinear enclosure which actually falls near the point at which Gala Water joins the Tweed; it could therefore be seen to be part of the Tweed valley. Why are there so few rectilinear enclosures in the Gala Water river valley? There are many possible reasons: one could relate to flying patterns which have been discussed earlier (see Chapter 5). As the Gala Water valley has no Roman road it has had considerably less attention from the air than the neighbouring valley to the east. Second, it could be caused by soil type, geology or land use and development which could limit the visibility of these sites from the air, but in this regard it shows little difference from other areas in the Newstead region (see Chapter 5). As discussed earlier, rectilinear enclosures might be the result of topographical bias or associated with suitable arable land, but there is nothing particular in regard to this area which would eliminate their presence. A more interesting notion builds on Wise's (2000) argument that rectilinear settlements are representative of a hierarchical settlement pattern and therefore represent dwellings with control over local kin groups who mostly inhabit circular enclosures in the immediate vicinity. Wise argued that settlements in general clustered in the Newstead region, and that often there is only one rectilinear site associated with these settlement clusters (Wise 2000). While problems with this model in the Newstead area have been noted, it is important to note that while the Gala Water area is lacking in rectilinear enclosures, it does contain the two brochs which have been argued to house elites. It may be that the brochs in Gala Water were serving a similar social function to the rectilinear enclosures and therefore their presence was redundant in the valley. While such models would need further analysis and a better understanding of settlement pattern in general as well as a more secure chronological understanding, it is a possibility to be considered. The brochs in Gala Water offer unique potential for study in that they have been previously investigated and as such have a fairly well established chronology compared with other settlement in the area. Given the early

excavation of both sites, the latest being in the 1950s, the chronology has so far been determined on the basis of finds, almost exclusively Roman. Fairy Knowe (Main 1998) for example produced evidence for pre-broch occupation and it is possible, given the more rigorous excavation at this site, that both Torwoodlee and Bow brochs had a similar pre-broch sequence which was not fully identified owing to the limited nature of these earlier excavations.

6.6.1 The Finds From Torwoodlee and Bow

Given that both of these sites have produced finds permit some chronological understanding (Curle 1892, Piggott 1951, Macinnes 1984) it is pertinent to discuss the finds in greater depth. Bow broch produced far fewer finds than Torwoodlee, which is not surprising given that it was only excavated once at the early date of 1889, during which excavators encountered poor weather and stated that this considerably hampered their work (Curle 1892). If we compare the excavation with Torwoodlee, excavated a year later and then re-excavated in 1950 (Piggott 1951), it is clear that the excavation at Bow was not carried out to a significant depth or covering as wide an area; indeed the 1950s excavation of Torwoodlee found the broch floor under the level at which the earlier excavation ceased. Were Bow broch to undergo further excavation, a clearer picture of the site's social function and chronology might be determined. The early excavation found a significant amount of animal bone which unfortunately never underwent further study, as well as at least three pieces of Roman pottery, later described as coarse ware (Robertson 1970), and a bronze brooch. These finds clearly point to occupation at some point in the Roman or at least the early post Roman period. The early Roman period is more likely when compared with Torwoodlee which has a better understood chronology. Bow broch also produced a fragment of 'native' pottery (Curle 1892) which was argued to be similar to those found in northern brochs, but without further study might possibly represent a locally made artefact. Bow differs from Torwoodlee in that its placement does not at present seem to overlie any earlier features, but without further excavation one cannot rule out the possibility that it overlies earlier remains.

Torwoodlee's re-excavation by Stuart Piggott produced a far more refined chronology. The initial purpose of the excavation was to determine the broch's relationship to the substantial enclosed settlement/hillfort upon which it was constructed. The excavation determined that the broch was a later addition, as it cut part of the hillfort's ditch.

Evidence of a round house was also found underneath the broch in the form of posthole remains. The placement of the broch over an earlier round house could be used to argue continuity of settlement. Unfortunately dating of the round house remains problematic and while Piggott argues for a late Iron Age date it could have been earlier. This relationship has been made more problematic by the classification system of features used in the report. Piggott states that the round house was found under the broch's floor and produced no Roman finds which could be associated with it (Piggott, p. 100). However, in the excavation report it is stated that the contents of Posthole 3 included broken fragments of Roman glass. If we are to take his assertion that no Roman material was found in relation to the round house, then both the posthole contents described on page 98 and 112 were not found in Posthole 3 as recorded, but either belongs to another feature (ie. pit 3) or there has been a fundamental oversight in recording and analysis. If the record of Roman glass in Posthole 3 is correct then there is Roman material underlying the floor of the broch. What is more significant is that some of the glass in Posthole 3 is of the colourless variety and, as noted in Harden's glass report (1951), is a variety normally found in Scotland during the later Roman periods It should be attributed to the "Antonine (period) or later. Colourless glass of this type is not found in Britain before the beginning of the second century, so far as I know and is mainly later second and third century in date" (Harden 1951, p. 113).[57] These finds raise questions concerning Piggott's argument for the destruction of the site by the Roman military before or during the early Antonine re-advance. It also appears to highlight the fact that the excavator overlooked information from finds reports which did not support his overall conclusions.

A comparable example of this can be seen in Jobey's (1978a) discussion of Burnswalk in which he states that the hillfort was not occupied in the Roman period, disregarding the second century pottery and glass that his excavation uncovered in situ, situated within occupation levels on the summit (Bruhn 2002; Jobey 1978a). Yet Piggott's excavation was successful in placing the construction of the broch at Torwoodlee within the early Roman period. Finds of Roman pot and glass were found embedded within the broch walls and floor indicating deposition before the completion of the site. The

[57] Since this period there has been a considerable amount of further study of Roman glass in Britain and the initial dates for the production of colourless glass are now seen as earlier in British contexts. Price's work on the glass at Usk fortress show that the introduction of colourless glass began in the late 1st century, but became more common in the 2nd and 3rd centuries (Price 1995, pp. 152-9). The evidence from Scotland is less specific but it would not rule out colourless glass on forts from the Flavian period; this does not address when it would have been acquired by the broch's occupants.

majority of the Roman finds place the datable range of Torwoodlee broch around the Flavian period and as such the site fits well with the similar large quantities of Roman goods associated with significant sites (Hunter 2001). Torwoodlee broch is also notable for its high portion of coarse ware in relation to the overall assemblage and as such is comparable in this with other sites which have produced large proportions of coarse ware such as Trapain Law, North Eildon Hill, Edinburgh, Hyndford, Leckie, Fairyknowe and Buittle (Robertson. 1970; Hunter. 2001). Hunter has noted a high proportion of Roman coarse ware south of the Antonine Wall compared with the sites to the north and has argued that this related to exchange networks of Roman goods. Robertson (1970) noted that there is a tendency for native sites to have more prestige type Roman goods overall with a higher distribution of samian on non-Roman sites. Coarse ware, when found, seems to be predominantly on these more architecturally substantial sites rather than at smaller enclosed homesteads.

Little has been made of this in the literature, perhaps because the general belief is that Roman goods would have been seen as prestige goods by the local communities. Yet in Southern Britain there has been a distinction drawn between coarse ware and fine ware which has been used to argue for diverse settlement wealth (Evans 2001; Willis 1998). These models have not been applied to the northern material, perhaps because at sites like Torwoodlee they would represent a reversal of the assumed status as well as the fact that northern sites are not seen to participate in the broader Roman economy. What should be taken into account though is that the increase of coarse ware could point to a different mind set in the use of pottery at these sites. Rather than all the goods being for prestige and display, these sites might represent a more utilitarian use of Roman goods, suggesting that the occupants of the sites viewed themselves differently in terms of how they used goods and how they perceived the Roman presence.

When addressing the context of Roman finds on sites like Bow or Torwoodlee brochs, it is also necessary to address how the finds were acquired and this has been one of the greatest areas of speculation (see Chapter 5). The finds from Torwoodlee have long been presented as representing looted material from the nearby Roman fort of Newstead, taken by the broch's occupants after the first abandonment of the fort. This has been argued over the years with regards to many Roman finds in non-Roman contexts but has been strongly argued for Torwoodlee by J. Gilliam (Robertson 1970) and Piggott:

> The presence of the abundant, and on the whole superior Roman pottery and glass in contexts which make it inevitable that it was in the possession of the broch builders is remarkable. The only likely explanation seems to be that it was looted from the Roman fort at Newstead, six miles away, by the newcomers during its temporary abandonment by Roman forces, or less probably obtained from camp followers. If the two brochs represent the strongholds of invading chieftains, travelling light and without their woman folk, the acquisition of ready made vessels from a convenient local source would not be surprising. (Piggott.1951 pp. 144-115).

While the above quote may seem extremely dated, discussion of the movement of Roman goods in non-Roman contexts is now seen increasingly as a product of social relations and prestige goods networks (Haselgrove 1984; Hingley 1992; Armit 1997; Hunter 2001) - the view that this material was looted still finds currency. While there has been fairly secure evidence for Roman material being moved around in the post-Roman period from Cadbury Castle (Alcock *et al.* 1995; Barrett *et al.* 2000), this was over a limited distance and if anything shows the complex life span and currency of Roman material in the local communities of Britain. The theory that Roman material at Torwoodlee was taken from the abandoned fort of Newstead is more problematic than revealing.

The more that is uncovered about the complex models of society at the time, the more such a view seems unlikely. The relegation of this material to scavenged goods is also more revealing of the preconceptions of archaeologists dealing with the northern frontiers, as comparable ideas have not been used in relation to the interpretation of material of Roman origin in the south. There are also technical problems with the specific example at Torwoodlee: first, the distance of the site from the nearest 'Roman' town represent a considerable effort to sift through debris; second, if we are to accept that it was taken from the fort after a phase of decommission, why were the materials found at Torwoodlee readily available in Newstead? Small pieces of personal value would most likely have been removed by the departing occupants of the fort. The military systematically buried two tons of iron nails at Inchtuthil (Shirley 2000) before they left; it has been argued that this was to keep the material out of the hands of the local natives. Surely this would imply a situation in which most of the Roman material left in Newstead was probably fragmented and partial.

If it is to be accepted that the material for Torwoodlee was taken in such a state, then the occupants were going out of their way to obtain Roman fragments. While for the glass this could be argued as obtaining raw materials, it is hard to afford the same status to

fine and coarse ware pottery. The implications could be that the material had a specific symbolic meaning and even fragments were of social value (raising interesting implications with regard to Chapman's observations; (2007; 2000)). The other possibility would be that they were looted from the site intact during an engagement. This is also difficult to envision and the reality of this material must be understood in far more complex ways, involving trade and interaction. Discussions of the material being looted from Roman sites can be viewed as an attempt to dismiss and avoid the difficult questions about the movement of Roman material and what it can reveal about Roman/'native' interaction and about how this material was used and what it represented to those using it. (see Chapter 6). This looting or 'native' consumption of Roman goods presents an impression that material was moving in only one direction.

Over the years there has been recognition that what is termed 'native' metalworking and other local finds have been found at forts (Hunter 2007). Newstead, for instance, contains many items which have a wide occurrence in 'native' sites. However, some of these small finds, for example glass beads and bangles, confusing if they are produced at 'native' sites or on Roman (Price 1988 and see discussion in Chapter 5). The example of the 'native' torc is not ambiguous and clearly shows that the goods were also moving in the other direction. Birrens has also produced numerous examples of 'native' goods (Wilson 2003) and while they are often overlooked, they are relatively abundant (see Hunter 2007). Why have we never seen a study of 'native drift onto Roman sites' carried out as a systematic survey? It would surely be welcome. If we look at Torwoodlee's Roman material in relation to the site and the overall landscape, what sort of picture emerges?

6.6.2 Torwoodlee: New Perspectives

While the date range for brochs varies, some in the north of Scotland have evidence for construction in the early or middle Iron Age and others seem to continue through to the early mediaeval period (Armit 1990, 2003; Hingley 1992b; Macinnes 1984a; MacKie 1969, 1975). The lowland brochs are no less puzzling. There does seem to be a trend toward occupation during the Roman period (Macinnes 1984a; MacKie 1971, 1982), yet this is not necessarily universal; further, most are dated by the Roman finds, it is possible that other periods of occupation have been overlooked. There is no reason that some could not have been constructed in the pre-Roman Iron Age or even reflect the Late Roman or post-Roman period, given that Roman goods often had a lengthy span of

use and re-use. The evidence for Torwoodlee indicates a construction period during the Roman occupation of Scotland with abandonment at some later stage. Macinnes(1984a) discusses the problems with the assumption that it was cast down in the pre-Antonine period. This, combined with the overlooked glass evidence and the general problem of determining the span of use of Roman material on non-Roman sites, could arguably push the date for the abandonment of the site back later. There can be little doubt that Torwoodlee broch was constructed in the Roman period, and had relatively considerable access to Roman goods (Hunter 2001 argues that it had access to a wide selection). It was built within an earlier Iron Age hill fort of considerable size (Halliday 1982). and was built on top of a round house most likely associated with the hillfort.

There is no certainty that the broch constructors were aware of the earlier round house as it could have been a considerably earlier feature and as such no longer visible. Yet the way it falls entirely within the centre of the broch implies that the broch was constructed around its remains. The earlier hillfort at Torwoodlee was considerably larger than other Iron Age settlement in the immediate area, and larger hillforts such as Trapain Law, Eildon Hill North and Burnswark have been argued potentially to be either the settlement of local elites (and therefore to represent a hierarchy of settlement) or to have been ritual gathering places where local groups came together, exchanged goods and reinforced social obligations (Hingley 1992b). This could possibly have been similar to the North-Western Native American tradition of potlatch (Dietler & Hayden 2001; Jonaitis & American Museum of Natural History. 1991). The ramparts and ditches surrounding Torwoodlee hillfort would have been the product of considerable social effort which might displace the utilisation of extended social obligations or communal organisation (Hill 1995a, 1995b; Hingley 1992b; Sharples 1991a). However we view Torwoodlee hillfort, it is clear that it would have been a significant place in the Iron Age. Was the broch a representation of the location's status or was it something new to legitimise a social position in relation to an earlier symbolic place (Hingley 1992b, 1996a, 1999; Williams 1998). This placing of the broch on an earlier feature is in direct contrast with the Bow broch, but does bear similarities with other broch sites in lowland Scotland (Macinnes1984).

When we examine Torwoodlee in relation to the Anisotropic Cost Surfaces addressing Roman military movement (see Figure 6-37) the broch and the rest of Gala Water fall outside of the argued extent of Roman daily movement and is on the periphery of

Roman military influence. This is in sharp contrast with the number of Roman finds present on the site. As was mentioned earlier, Roman finds in general, aside from the two brochs, are limited to the Gala Water valley; physical Roman remains within the ACS area are limited to a marching camp. A structure that has been interpreted as a Roman building at Easter Langlee, falls between the broch and the fort at Newstead, on the Tweed, which is significant. Unfortunately, little is known about the building aside from its construction in Roman masonry (it was destroyed by quarrying and without excavation (RCAHMS site report)). If Easter Langlee was a Roman and not a later feature constructed out of re-used Roman masonry, it could present evidence for Roman complacency in security of the region as it is one of few examples of Roman construction so far from a fort in the north. Could this point to a peaceful relationship with local communities in this region or just more secure Roman domination of the occupied territory? As Macinnes (1984) has argued, the evidence for a Roman slighting of Torwoodlee broch is questionable and she has argued that internal reasons in the local community may be a more likely reason for abandonment of the broch. If this is the case, one possible interpretation of Torwoodlee would be that a family in Gala Water was in the process of cementing their social dominance over the more kin-based social structure in existence in the valley. Any hierarchy present in the earlier Iron Age period would have been bound up in social contracts and bonds and as such could have been fluid, reinforced when it suited the local kin groups. Parallels could be made with the 'big man' social hierarchy in anthropological studies, where power is often tied up in strong and personable individuals rather than any system of inheritance (Godelier 1986; Sahlins 1963). This looser kin-based society works better with the overall model of settlement pattern in the Newstead region as there seems to be scant evidence of a more regimented hierarchical system which could be associated with the classical tribal group described by the ancient writers (Hingley 1992).

However, in regard to Torwoodlee, the earlier hillfort could arguably present evidence of a more strictly hierarcical system as the linear dykes and ditches around the site have been argued to represent stock control rather than arable field systems (Haliday 1982). If this is representative of the Iron Age period, it could be argued that Torwoodlee maintained some control over surplus stock in the Iron Age and as such might have exercised considerable control over other sites in the area. This need not be the case though and might represent an attempted shift to a more rigid system. The presence of the large amount of Roman material and the newly constructed broch may be

representative of a subtle display of power and renegotiation on behalf of the broch occupants between the Roman armies and the local communities over which they were trying to assert influence. The broch itself then might be a way of distancing themselves from the Romans at the same time as contacts were growing stronger. While Macinnes has argued that the broch would have complemented pre-existing social organisation of space and not been considerably different from existing Southern traditions of substantial houses (Macinnes 1984; Hingley 1992), it does represent a visible association with a settlement type firmly established in the north and west outside the influence of Rome (see Armit 2004, pp.129-132). People at this time are likely to have been well aware of this, and therefore the building of such a structure whilst the occupants were fostering (at least material) ties with the Roman military might represent an attempt to retain legitimacy with a local community distrustful and resentful of the Roman military presence (Armit 2004, p. 132). In the long term, the abandonment of the broch might represent the failure of the occupants to achieve greater dominance over the local communities and the inability of these agents to negotiate a new social structure and as such maintain a reliable relationship with the Roman military presence. The other possibility is the social situation in the area changed when the Roman military withdrew.

6.7 Conclusion

The exclusivity between rectilinear and circular enclosures in the area could reflect internal colonisation or could represent new and competing communities forced to establish themselves in the empty zones between clusters of circular sites. The frequent pairings of rectilinear enclosures could represent the beginnings of such processes with the splitting of families as the settlements grow beyond their capacity. If this occurred during the Roman occupation, these sites represent a clear association with the Roman infrastructure, which may account for the general distribution of 'Roman' finds. While 'Roman' finds have a wide distribution pattern, the overall quantity of the finds is remarkably low; lack of excavation explains some of this dearth but not all, possibly indicating that availability was either strictly limited or that the material was partially unwanted. Yet people at certain sites seem to have had no restraints governing the incorporation of the items into their general social practices.

The Newstead case study highlights the potential of this area to illuminate many of the issues relating to interaction in the region during the Roman occupation. If the material is addressed with new methodological techniques and more nuanced questions posed, it

has considerable potential to provide answers. While some of the questions asked have produced informative results, they have also generated more questions with regards to how settlement and finds distributions are to be understood in light of the Roman occupation, highlighting the further benefits to be gained by reassessing the existing evidence. The danger of drawing simple or even singular conclusion to explain the patterns has been illustrated. Indeed, it is likely that the material represents a variety of different mechanisms and is the product of complex and prolonged social development. While understanding the settlement distributions is made more difficult by the lack of chronological depth of much of the data, this may be representative of the general vagueness and often arbitrary nature of how periods in the region have been constructed. It could be necessary to scrap the existing temporal framework and replace it with a far simpler model which would take into account more general and longer temporal changes. Even with these problems, trends have emerged and would seem to indicate either expansion into new territory in the Roman period or a demographic shift within existing settlements.

7 Inveresk Case Study Area

7.1 Introduction

The Inveresk case study encompasses a 15km catchment around the Roman fort of Inveresk,[58] and although not as extensive[59] as the other study areas, incorporates a large amount of settlement evidence (see Figure 7-1 and Figure 7-2). The coastal region in particular was densely populated during prehistory. While the distribution of settlement sites bears similarities with the other study areas, there are notable differences. There are similarities in the distribution patterns of Roman material culture in the region of southern Scotland as a whole. However, the distribution patterns around Inveresk are unique in some regards, particularly in the distribution of Roman coins. Not only does the distribution of Roman material culture differ, but also the quantity of material, as well as the trend toward mixed assemblages (i.e. assemblages which contain both 'native' and 'Roman' material). The implication of these differences is that the nature and extent of Roman occupation and local interaction differed in character from the other areas. While the area falls short of what one could call 'integration', the overall significance of the Roman impact was considerable, with evidence pointing to shifts in settlement activity and cultural practices within the local population. Before discussion of the interpretation of the survey data, it is necessary to discuss both the data itself and to present background information for the study area, in order to place the results in context.

7.2 The Inveresk Study: History of Study

The study area around Inveresk incorporates a large coastal region and included a significant Roman military presence. It includes the Roman forts of Inveresk, Cramond, and Elginhaugh as well as numerous Roman camps (see Figure 7-3). The evidence for civilian settlement around the forts is strongest at Inveresk where the *vicus* was quite substantial in comparison to other frontier forts. Cramond has also produced evidence of a *vicus*. However, given the nature of excavations at this site, the extent of the *vicus* is not clear, but there seems to have been local pottery production at the site (Holmes *et al.*

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[58] Inveresk was selected given the significant amount of archaeological work which has occurred on both the fort and *vicus*.
[59] The main reason for this was to exclude incorporation of a significant portion of the kingdom of Fife.

2003). All three forts have been partially excavated, contributing to knowledge of their phasing. Excavation of sites has been far more common in this study area than at the other study areas investigated in this thesis.

As is the case with all of the study areas, identification of archaeological sites can be divided into three broad periods of archaeological survey. The first period concerned the traditional identification of sites on the ground, based on surface visibility. This includes most of the early archaeology in the area. It had a tendency to focus primarily on highly visible and 'prestigious' sites. These include the more prominent hillforts and Roman remains. The second main period of site identification involved the recognition of aerial photographs of crop marks, which began in the late 1930s, but intensified during the Second World War and had a substantial impact during the 1970s. This phase of identification, as with the other study areas, has greatly contributed to the overall understanding of settlement evidence in the Inveresk area. While some areas are more responsive to such methods, a general pattern has developed which indicates that the area, especially the coastal plain, was significantly populated in the Iron Age through to the early Medieval period. While later urban development has complicated the archaeological visibility in regard to aerial evidence (see Figure 7-4), it has contributed to the third phase of archaeological investigation - developer funded exploration (see Figure 7-5 for the impact of urban development on enclosure distribution).

Given the nature of developer funded archaeology in the Inveresk area, it is necessary to discuss the overall impact of such archaeological data on this study. While planning policy guidelines PPG16 / NPPG5[60] has made a considerable impact in the north of England and southern Scotland, as far as the study areas are concerned, only two have seen a significant amount of archaeological work carried out in relation to planning guidelines. Dumfries has seen work undertaken in relation to the M1 motorway development, while the Inveresk region has seen considerable development of various forms in recent years.

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[60] PPG 16 (Planning Policy Guideline note 16) which covers England was published by the Department of the Environment in November 1990. NPPG 5 (National Planning Policy Guideline 5) and PAN 42 (Planning Advice Notes 42) were published in January 1994 by the Scottish Executive. These collections of guidelines are part of larger planning policy guidelines within the government's overall development plan and control systems. The guidelines set out the governments policy on how archaeological remains should be dealt with during development, covering: archaeological assessments, protection and preservation and, where these are not possible excavation, and recording of sites. (For a further discussion of planning police guidelines see; Breeze 1993(1993a) and Thomas (1993, pp. 146-7)).

The impact of the Inveresk study area has been substantial as a significant amount of grey literature and published reports relating directly to development area available. This has significantly increased the understanding of both Iron Age settlement and Roman occupation in this region due to NPPG5. As Bradley and Phillips (2004) have highlighted, the Lothians, especially East Lothian, is one of the main areas in Scotland to benefit from NPPG5. The density of archaeological investigation in this region can be clearly seen (see Figure 7-5) as it is one of the more densely inhabited areas in modern Scotland. More importantly, much of this developer funded work in southern Scotland has also been published or made readily accessible through the National Monuments Record for Scotland (NMRS) (Bradley & Phillips 2004). Bradley and Phillips (2004, p. 43) have also highlighted the impact of developer funded archaeology in Scotland on academic debate and general archaeological understanding. They state that discussion of the Iron Age material, in particular, has been incorporated more fully than elsewhere in Britain. Indeed as Bradley points out, much of Harding's (2004) recent synthesis is based on developer funded archaeology, contrasting this with Cunliffe's (2005) review of Iron Age Britain which overlooks grey literature (Bradley & Phillips 2004, p. 43). Although, Harding's (2004) synthesis is commendable for its inclusion and discussion of the developer data, it is also a necessity given the lack of large-scale research excavation in the area. When this is compared to Cunliffe's (2005) work, which can be seen as the result of the long standing environs research at Danebury, it is therefore not surprising that Cunliffe chose to frame the discussion and synthesis of the Iron Age in southern England around such a large and in-depth project. It will be interesting to see if there is a substantial shift in the discussion of southeast Scotland during the Iron Age after the publication of Haselgrove's environs project at Traprain Law (see Haselgrove *et al.* 2001, pp. 11-2).[61]

Here, the main point of the discussion of NPPG5 is to highlight how significant these planning guidelines have been in relation to the Inveresk region. They allow a far richer discussion of interaction to emerge than would have been possible even ten years ago. This is a result of the often arbitrary nature of development which has allowed many areas to be excavated which, most likely, would not have been studied if only research driven fieldwork were available. Access to less visible sites and features in the general

[61] 'Understanding the British Iron Age: an agenda for action' discusses the need to see such sites within their larger landscape and settlement context. The agenda also highlights the need to address issues of settlement distribution, chronological frameworks and regionality within the Iron Age of Britain (Haselgrove *et al.* 2001). One of the goals of this present thesis is to assess settlement distribution and chronological information from each case study to better understand regionality in southern Scotland.

landscape, un-associated with larger prestige sites, has been responsible for a fundamental shift in the nature of understanding these sites.

7.3 Roman Forts in the Region

In the following section, an overview of the three Roman forts in the region is presented. The initial discussion will concern phasing, as such information has ramifications for the broader spatial analysis. When it is possible or pertinent, specific details which are significant to the overall study will be highlighted. These discussions, being more micro in scale, will contribute to the overall understanding of the issues and the area in question. The three forts to be discussed are Elginhaugh, Cramond and Inveresk, the locations of each can be seen on Figure 7-3.

7.3.1 Elginhaugh

The Roman fort of Elginhaugh is a prime example of the impact of aerial photography in this region as Elginhaugh was only identified in the late 1970s (Maxwell & Wilson 1987, p. 18) (see Figure 7-6 for a plan). While little is known about the site to date, it has undergone substantial excavation during 1986-87 (Hanson & Yeoman 1988).[62] The fort has been dated as Flavian and represents the earliest Roman occupation in the study area[63] and is associated with a crossing point over the river Esk. Why this site was neglected during later occupation in the Antonine period is significant, as the nearby site of Inveresk seems to have been favoured at this later date, possibly due to reasons of access connected to the port. While the site clearly displays only Flavian occupation there seems to be some post-Roman activity at the site (Hanson 1995; 2002, pers comm.) The site has produced evidence to show that the garrison consumed local grain, highlighting that some form of local interaction took place in the Flavian period (Hanson 2002b); pers comm.)

7.3.2 Cramond

The Roman fort at Cramond has been subject to many phases of excavations on both the fort and its exterior (see Figure 7-7). The first phase was undertaken from 1954 to 1966 (Rae & Rae 1974). During this period of excavation, it was argued that the fort contained evidence for two phases of Antonine occupation. While this was consistent

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[62] The Elginhaugh excavations have just been published, and there has not been adequate time to fully appreciate the information for an in-depth discussion within this projects timeframe.
[63] Given that it is very hard to date the numerous marching camps in the region it is difficult to factor such features in to the discussion of phasing.

with the overall view of the period, recent work has questioned the evidence for these two separate Antonine occupations in the north (Hodgson 1995). This specific issue of two phases of Antonine occupation at Cramond is discussed in the publication of the 1975-81 excavations (Holmes *et al.* 2003). A reassessment of the evidence from both excavation periods questioned the earlier belief that the period between c AD 142 and 162 had witnessed two separate and distinct occupations of Cramond (Holmes *et al.* 2003). Cramond, then, supports a single Antonine occupation on the site. While all forts north of Newstead are traditionally thought to have been abandoned between the end of the Antonine occupation and the later Severan campaign (see for example Breeze & Dobson 2000), the evidence for a post-Antonine abandonment is not so clear (Holmes *et al.* 2003). There is the possibility that some form of occupation was maintained in the period between the abandonment of the Antonine Wall and the Severan occupation. Whether this was a continual but limited occupation or a sporadic occupation is debatable, but there is no evidence that the site was destroyed or decommissioned at the end of the Antonine period and, while limited in amount, the presence of later pottery points to some form of activity at the site (Holmes *et al.* 2003, p. 154). It is interesting that recent work on the finds from Inveresk also suggest that some form of occupation continued past the suggested Antonine abandonment (Bishop 2002b). The next significant phase at Cramond was during the Severan campaign, when the complex is seen to act as a supply base for activities further north (Holmes *et al.* 2003; Masser 2006). While Holmes (2003) supports a fairly substantial occupation of the fort at this time, Masser (2006, p. 17) questions whether this was the case and proposes that the annex played the primary role.

It is during the Severan campaign that there is the most evidence of extra mural settlement (Holmes *et al.* 2003). The dismissal of a *vicus* during the Antonine period (see Holmes *et al.* 2003, p. 159) was based on two assumptions: first, it would be illogical for it to occur in such (perceived) hostile circumstances. This can be refuted by (unambiguous) evidence at Inveresk which points to an Antonine *vicus* occupation (Bishop 2002). The second reason is partially based on this first assumption and argues that earlier material on these sites is the result of midden materials from the 2nd century fort being used as levelling material on the Severan sites. While this may very well be the case, it would be premature to rule out the possiblity of such settlement during the Antonine period.

It was widely held that after the death of Severus, sites such as Cramond would have been quickly abandoned, yet the evidence is far from straightforward. In addition to evidence for some form of reuse of some buildings in the fort (Holmes *et al.* 2003; Masser 2006; Rae & Rae 1974), later third century pottery is also present (Evans 2006; Holmes *et al.* 2003). The material points to a strong connection to Roman supply, even if the material is limited. As such, Rae and Rae's (1974) argument that it represents the occupation of the site by Romanised 'natives' is somewhat dubious given that there is little evidence in the immediate area of these people. Holmes (2003) has proposed that these finds derive from "a short-lived Roman rearguard occupation, perhaps lasting only months, and intended to permit negotiations with the local Votadinian leaders over a future policy which would benefit both Romans and 'natives', and to provide instruction in how best to achieve this" (Holmes *et al.* 2003, p. 156); this interpretation equally seems to be the by-product of fantastically wild speculation. It also does not account for the material of considerably later date than 'a few months' after the Severan period (Holmes *et al.* 2003, p. 156; Masser 2006). Holmes suggests that such finds could have been deposited by 'parties of *exploratores*' but confesses that such considerations are speculation (Holmes *et al.* 2003, pp. 154-6). While Holmes (2003) dismisses later occupation at the site, forwarding even a reduced local 'native' presence in the area due to a perceived economic collapse caused by the abandonment of the fort and hostile rival tribes, a recent reassessment of the pottery assemblage questions whether such a strong argument can be supported: Evans' (2006) reassessment concludes that a portion of the pottery, which Ford (2003) categorised as Severan, should be seen as firmly post-Severan. This forces a reappraisal of the post-Severan occupation. Evans goes so far to argue that there is potentially more material than could be accounted for through trade or Roman patrols (Evans 2006, p. 9). While the presence of this material could be due to a number of factors, it is clear that some form of occupation continued after the Severan period at Cramond. The complex nature of phasing is a stark reminder that the often applied models of Roman occupation, derived from Classical Roman sources, may be over generalising and too simplistic to explain reality. While it is easy to see the appeal of these large frontier models, based around individual military commanders and their campaigns, and to date the forts accordingly, the evidence from both Cramond and Inveresk indicate that the picture can often be more complex in reality.

The fort at Cramond also produced evidence for pre-Roman activity in the form of ard marks under the Roman rampart (Holmes *et al.* 2003, p. 7). While there is nothing to

indicate that cultivation was occurring immediately before the Roman occupation it would be strange that such arable land was not utilised in some way given the density of settlement in the area. Clearly the placement of Cramond would have had some effect on the local population. Overall, it is important to note the length of Roman occupation at this site, especially considering the post-Antonine occupation (if the evidence is accepted) making it comparable with Newstead, as one of the longest occupied Roman sites in Scotland.

7.3.3 Inveresk

The Roman fort at Inveresk has been chosen as a primary focus point for this study area, due to the large amount of survey and excavation undertaken in this area, as well as the unique role of the site of Inveresk in the local landscape. Given the substantial evidence for extramural settlement at Inveresk, the fort and its environs contributes much to the overall understanding of Roman occupation in Lowland Scotland. It therefore has the potential to illuminate issues pertaining to 'native' and Roman interaction. The fort itself has been partially excavated on a number of occasions (Hanson 1984; Leslie 2002; Richmond 1980), and the phasing evidence supports the initial conclusion that the fort was constructed in the Antonine period (Breeze 2002a; Leslie 2002). Aerial survey, in addition to rescue and developer funded excavations, has also revealed the existence of a substantial 'civilian' *vicus* or extramural settlement on the east side of the fort (Breeze 2002a; Thomas 1988) (see Figure 7-8). The extent of this settlement is far larger than any of the known Antonine *vici* in the region. Dating evidence for the *vicus* conforms for the most part with the Antonine fort, yet some of the pottery post dates this period, hinting that some form of occupation could have continued into the post-Antonine period (Bishop 2002a, p. 34). In light of the evidence from Cramond, this evidence should not be so readily dismissed. While the fort could have continued into the post Antonine period, another possibility is that the civilian settlement continued after the abandonment of the fort for a period, before finally being abandoned. This argument would run counter to the accepted view that such sites in the north of Britain were abandoned at the same time or even before the forts (Breeze 1996, 2006; Breeze & Dobson 2000). This continuity, however, is comparable to the situation at numerous Roman sites in the South of England and might be seen as evidence of a short lived urban site or small town at Inveresk. A parallel could be drawn with the settlement at Corbridge which contained multiple civil buildings (Bishop & Dore 1988) and developed into an extensive town attaining special status above that of a *vicus*

(Burnham & Wacher 1990). A similar pattern of development occurred at Catterick. When the fort was abandoned, the *vicus,* which may have acted as a local market place for the distribution of goods, continued to flourish (Wilson 2002). While the evidence from Inveresk is not as substantial as that from Corbridge, this may reflect the restricted length of occupation rather than the potential of the site. While such a conclusion would need further archaeological work to verify, it is still a possibility to be considered. As discussed in Chapter 5, the populations of these civilian *vici* would have most likely been made up of immigrants who accompanied the soldiers, rather than local peoples. Inveresk is one of the sites in the north where 'native' material has been found in Roman levels (Breeze 2002a; Hunter 2002; Rodger 2002). While this could indicate nothing more than the presence of a trade network or gift giving, there is the possibility that such material represents some form of local inhabitation of the *vicus*. At the very least, it is recurring evidence for very close connections with the local population in the Inveresk area.

The fort at Inveresk was most likely constructed in this location for a number of reasons: its proximity to the coast would have been both beneficial for supply, as well as for monitoring activity in the Firth of Forth. Also, the site was placed close to the river Esk, which seems to have been strategically important given the placement of the earlier fort at Elginhaugh. What is most apparent about the location is its proximity to the hillforts at Edinburgh Castle and Trapain Law, both of which show significant occupation during the Roman Iron Age, and the fact that the Esk river valley is densely settled in the period. Given the presence of earlier ritual features[64] and the extensive evidence of field boundaries, the area was not only very fertile but may have held symbolic associations for the local Iron Age population. The placement of the fort may have been deliberate given the local association with the area. To better understand the role Inveresk played within the larger landscape, it is necessary to review not only Iron Age and Roman Iron Age evidence, but also the results of the spatial analysis of the region; further discussion of Inveresk will therefore continue in this chapter's conclusion.

[64] The presence of a henge monument next to the fort (Brown 2002) is clearly indicative of the earlier ritual nature of the area. Its difficult though to address whether such an early feature would have still been visible or even understood in the Late Iron Age.

7.4 Excavated Iron Age Settlement in the Region

There has been a substantial amount of excavation which relates to this chronological period. This is due primarily to rescue and developer funded archaeology. While most of these excavations have been factored into the database and are represented in the general discussion, three important excavations merit in-depth discussion. They have been chosen because of their large scale and because detailed discussion contributes to subsequent statistical discussions of settlement and finds data. The three excavations are St. Germains excavated from 1978 to 1982 (Alexander & Watkins 1998), the settlement at Fishers Road East and West excavated in 1994 and 1995 (Haselgrove & McCullagh 2000) and Edinburgh Castle excavated 1988 to 1991 (Driscoll & Yeoman 1997). The locations of the sites can be seen in Figure 7-9. All produced datable finds and phases and contribute to an overall understanding of the Inveresk area in the Roman Iron Age.

7.4.1 St. Germains Enclosure

The excavated enclosed settlement of St. Germains was found to be multi-period. Evidence indicates Bronze Age, Iron Age, Late Iron Age and Roman Iron Age occupation before the site was cultivated in the early Medieval period (Alexander & Watkins 1998). The fact that occupation occurred from the Bronze Age through to and including the Roman period highlights the problematic nature of dating such enclosed sites without excavation. The later Iron Age enclosure ditch was of considerable size in relation to settlement, and while multiple interpretations of its function are possible (see Figure 7-10), Alexander and Watkins (Alexander & Watkins 1998, pp. 246-7) favour a ritual or symbolic purpose. The enclosure was seen to act as a divide between the settlement and the wider landscape. To reinforce their point, they highlight the tendency of such a feature to hold standing water at certain times of the year, tying these features into the tradition of ritual association with standing bodies of water (Alexander & Watkins 1998), for a broader discussion of enclosures serving as a ritual feature, see Hingley 1992, p. 38 for discussion of the Scottish material, Collis 1996 for general review). The last phase identified (Phase 5) was of an unenclosed settlement, and while precise dating of this unenclosed settlement is not possible, it appears to have started during the late Iron Age or early Roman Period and continued during the Roman Iron Age as attested by finds (Alexander & Watkins 1998). St. Germains is also notable for the large amount of Iron Age pottery present, while other sites in the area have also produced such pottery (Fisher Road East, Fishers Road West, Braidwood, Castle Rock

and, outside of the study area, at Broxmouth, Bonchester Hill and Hownam Rings) few within the study area have produced such large quantities (Alexander and Watkins 1998; Haselgrove and McCullagh 2000).[65] Indeed the site produced similar quantities to Broxmouth (East Lothian), a far larger settlement (Hill 1982a). This ceramic assemblage, while large, should not be seen as novel given recent research which has dispelled the belief that much settlement in the south of Scotland and north of England was aceramic (Willis 1996, 1999). This 'relatively' large proportion of Roman material has been used to argue that the site was fairly high-status (Alexander & Watkins 1998), and while a possibility given the large assemblage of Iron Age pottery, it may also relate to its proximity to Inveresk. However, given the lack of such finds from both Fishers Road sites, mere physical proximity cannot be the sole factor pointing to a level of interaction between the sites. The Roman finds are typical portable display items, such as samian pottery, brooches and tweezers (the latter can be associated with a greater emphasis on personal display (see Hill 1997; Hunter 2001)).

7.4.2 Fishers Road, Port Seton Enclosures

The two excavated enclosures at Fishers Road in Port Seton, Fishers Road East and Fishers Road West (see Figure 7-11) are two of the best dated sequences in the area. What is most impressive is that they have a date sequence which is derived not from the presence of finds, but primarily from absolute dating. While such techniques have had a wide application in the region in recent years, the close proximity of these two sites has allowed a unique understanding to emerge. Both of the sites, as at St. Germains, had a long period of occupation extending from the Iron Age through to and most likely into the Roman Iron Age (Haselgrove & McCullagh 2000). They produced evidence for a mixed economy in that both were pastoralist and agriculturalist to varying degrees. This corresponds with the overall picture which is emerging of the Iron Age in southern Scotland. Both sites had circular enclosed phases, while phase 3 of the Fishers Road West was considered a rectilinear enclosure (Haselgrove & McCullagh 2000). This third phase again highlights the problematic nature of categorising enclosure morphology in two ways. First, it contains two separate morphological phases adding to the overall problem of categorising the site as a whole. Second, the more specific problems of how such sites are categorised. While this phase was categorised as rectilinear by Haselgrove and McCullagh (2000), it was close enough to the definition of circular to be almost categorised as such in this study.

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[65] See Appendix VII for a comparison of counts.

The artefact evidence of both sites contained Iron Age pottery of Cool's (1982) Type I and Type II vessels which are broadly datable. In fact the evidence from Fishers Road East potentially extends the currency of both types in the region into the Roman Iron Age (Gwilt 2000, p. 137; Haselgrove & McCullagh 2000, p. 185). Both sites produced few portable display items, and while the sites produced dating evidence which could be interpreted as continuing into the Roman Iron Age, they are significant in their lack of Roman material culture. Only Fishers Road West contained any Roman finds, consisting of a single piece of un-stratified Roman pottery (Haselgrove & McCullagh 2000). This lack of material is in stark contrast to the neighbouring site of St. Germains, yet as Haselgrove and McCullagh (2000) argue there is no need to view these sites as of lower status than St. Germains. Within their own local hierarchy they would have played an important role. This is attested by the size of the enclosures which would have required more labour than represented by the settlements population. Whether such labour requirements were met by subordinate locals or is reflective of social communal gatherings is a matter of speculation (Haselgrove & McCullagh 2000, p. 186).

Actually one could reverse the argument of equating Roman finds with higher social status and argue that, rather than representing higher status within the existing Iron Age society, the opposite may be true. If the pre-existing status was based around social networks and the ability to exert control over social relations, such status would not necessarily require an external material element to sustain itself. Elites in such a system could potentially view such material as polluting in nature and would support a conservative outlook to maintain their existing role. The adoption of material culture in a display manner could have been taken up by those outside of such social positions in an attempt to better their position. In this regard, it is interesting to note that the large hillfort sites which have produced the greatest amount of this material culture seem to have been largely unpopulated in the Iron Age and only show significant occupation (aside from the Bronze Age) during the Roman Iron Age (Owen 1992). This might point to these sites being competing social models, which may have been bolstered by their connection to Roman goods and Roman contacts and, at the same time, drawing on their past role, or at least the perceived importance of these sites in the past. This has been proposed not so much as an alternative (though there is no reason that it might not have been the case), but to highlight the overall ramifications of such a simple assumption as equating status to Roman material. How material is interpreted has

considerable impact on the overall models of societal structure which are often not fully discussed.

The primary period of enclosure of both Fishers Road East and West begins within the Iron Age which is similar on a local level to St. Germains (and compares to other evidence from Southern Scotland). The early date of these features separates them from any connection to the Roman military advance (Haselgrove & McCullagh 2000). As Haselgrove and McCullagh (2000) have suggested, if a defensive purpose is accepted for the construction of these features it "would suggest that the region was prone to political, economic and social volatility long before the Roman military advance" (Haselgrove & McCullagh 2000, p. 186). This argument relates to what is known from the overall archaeological record of Southern Scotland, but whether such evidence supports the argument that "the unrest created by this advance was quite possibly qualitatively no different to what the regions' inhabitants accepted as normal a regular occurrence from time immemorial" is quite another matter (Haselgrove & McCullagh 2000, p. 186). This argument relies on the assumption that violence or armed activity is universally similar in form and function. What is known of Iron Age warfare may suggest that it was largely tribal and symbolic in nature, often "bound up with social structure" (Haselgrove 1984b, p. 84; Sharples 1991b). This tendency to personal display and power would be consistent with a system of small scale warfare and raids over resources, area and prestige. When this is compared to the Roman military occupation, there are fundamental differences, which go beyond differences in scale. The creation of permanently fixed military features, a military force often drawn from far afield, and a far greater resource base for long campaigns which would not have been affected by growing seasons, all point to a substantially different method of warfare (Goldsworthy 2000; Mattingly 2006, pp. 87-94). While there would have been variability in the Roman military (dependent on such factors as the individual units, their origin and the personality of the troops and their commanders), the institutional nature of the Roman military would have been far removed from the localised warfare within the local Iron Age communities. It would have most likely lead to changes in how such peoples would have viewed their own practices. This is not to say that there might not have been changes before the Roman invasion, as the southeast of England seemed to change prior to Roman invasion as a consequence of Roman influence (Haselgrove 1984a, 1984b).

7.4.3 Castle Rock, Edinburgh Castle

The excavations conducted at Castle Rock in 1988-1991 produced evidence for prehistoric activity and settlement (Driscoll & Yeoman 1997)(see Figure 7-12). While the earliest evidence dates to the late Bronze Age or early Iron Age, this corresponds with the general understanding of large hillfort sites in the region where such features were probably utilised on a seasonal basis as communal gathering sites (Owen 1992). The evidence for the late Iron Age is more confusing as the site seems to have been occupied on a more limited level. While none of the prehistoric ramparts remain, it is a fair assumption that such features would have been destroyed by subsequent building projects (Driscoll & Yeoman 1997). The site produced a midden rich in finds from the Roman Iron Age and while no corresponding settlement evidence was found in the limited excavation, it has been proposed that the site was occupied at the time (Driscoll & Yeoman 1997). Driscoll and Yeoman (1997, pp. 224-6) argue that the site contrasts Traprain Law and most likely had a broch settlement during the period. This was suggested because they saw the finds as intrinsically different to those from Traprain Law and to have more in common with those from other broch sites in lowland Scotland (Driscoll & Yeoman 1997, pp. 224-6). The lowland brochs, as discussed in Chapter six, are not quite so secure in their phasing or as widely distributed as they were once considered to be. Given this, there are a number of reasons why the argument for a broch on Castle Rock is problematic. First, as noted by Driscoll and Yeoman (1997, p. 226), if a broch was present it would make it the broch 'richest' in Roman finds currently known. This does not directly reflect the existing finds from excavated brochs and could be seen as an argument against it. Second, there is no reason to suppose that the site differed in any manner from other enclosures, or even Traprain Law, in function. That the site presents evidence for settlement occupation does not exclude a ritual function. Further the assemblage of the Roman finds that were argued to differentiate Castle Rock from Traprain, and parallel those found at brochs, was based on the assumption that they were primarily domestic in nature. It should be noted that the assemblage suggests a similarity to Traprain Law, as it contains a large portion of Roman coarse ware (Hunter 2001; Robertson 1970). Roman coarse ware is relatively rare compared to Roman fine ware on 'native' sites and could represent, not only differential access to Roman goods, but also a possible different function for such goods.

If the assumption that Roman goods represented prestige goods is accepted, there are multiple possible ways to view Roman coarse ware on 'native' sites. The first would be

to see coarse ware in the same category as fine ware: both were novel and foreign and represented trade or exchange with Roman communities. The second is to draw a similar division in importance and function to that proposed elsewhere in the Roman Britain, namely that coarse ware is more functional and less associated with prestige (Evans 2001). The second argument would make sense given the nature of Roman finds in the north: few 'native' sites that contain Roman pottery contain coarse ware. Its scarcity in this sense should not reflect its importance, but rather that such material was for the most part not actively sought. This may result from two reasons. First, the argument that Roman goods were chosen which fulfilled some form of display. Second, the occurrence of Iron Age coarse ware suggests their function was probably already fulfilled (see Hunter 2001). This highlights a substantial difference in pottery trends compared with what was occurring in the south of Britain, where Roman coarse pottery replaced many of the local indigenous forms. In this regard, the presence of Roman coarse ware on these significant hillforts indicates two things: the ability to procure such goods from a reliable source, and the use of Roman goods for functions which would have normally been fulfilled by local goods. This represents a clear departure from what was occurring at the more general settlement level.

7.4.4 Traprain Law Hillfort

While Traprain Law deliberately falls outside of the Inveresk study area,[66] the importance of the site in discussions of cultural interaction in southeast Scotland during the Roman period necessitates a least a brief overview of the site and debate surrounding it. The basalt plug that forms the Law creates an impressive hill that dominates the East Lothian plain (see Figure 7-13 for a plan of the site and Figure 7-14 for a view of the hill). It is not the only such feature in the area, since comparable examples occur on North Berwick Law, Arthur's Seat, Bass Rock, and Castle Mound, but it is, in many ways, one of the more visually impressive and accessible of these sites. The role of the hillfort during the Roman Iron Age has long been the centre of attention surrounding the debate of the nature over local interaction with the Roman occupation. It has been seen as the tribal centre of the *Votadini*, a tribal group identified in Ptolemy's *Geography*. Given the large number of Roman finds from the site, it has often been argued that the *Votadini* maintained a friendly relationship with the 'Romans', and may have even been a client kingdom (Armit 1997a, pp. 102-3; Armit & Ralston 1997, pp. 179-83; Breeze 1982, pp. 152-3; Hanson & Maxwell 1983, pp. 35-6;

[66] See Chapter 1 for a discussion of why Traprain Law was excluded.

Hingley 1992b, p. 39). This view has been questioned as it is based primarily, if not solely, on the absence of a Roman fort in the vicinity of the site and on the presence of a large quantity of Roman material which may represent depositional practices rather that close ties (Aitchison 1987; Hill 1987). It is this second argument which has generated the most debate about the site, dealing with the nature of occupation and the role of the site in Roman Iron Age society of the region. Feachem (1966)categorises the site as an *oppidum* and subsequent authors have often emphasised the urban nature of the site (Armit 2001; Armit *et al.* 2002; Armit *et al.* 2006a, 2006b; Armit *et al.* 2005; Close-Brooks 1987; Erdrich *et al.* 2000; Jobey 1976, p. 198). Under this model Traprain Law would have had a role similar to that envisioned for Danebury (Cunliffe 1983, 1991, 1995; Cunliffe & Poole 1991). It would have been densely occupied, much like a small town, operating as a production centre and housing regional elite. As a perceived tribal centre and *oppidum*, Traprain Law may have also been similar to the *oppidum* at Colchester or Verulamium. The quality and quantity of finds are seen to represent not only the status of the site, but also the occupants' close ties with the Roman garrisons (Erdrich *et al.* 2000). This view of the site as a centralised urban site has been questioned (Aitchison 1987; Hill 1987; Hingley 1992b, pp. 36-9; Owen 1992). Hill (1987) argues that the nature of evidence from the site does not support the view that it was intensely settled during this period. Rather it might be seen as a ritual or temple site, with the material discovered representing ritual deposits rather than occupation debris (Hill 1987). These two views have largely been seen as mutually exclusive(see Aitchison 1987; Armit 2001; Close-Brooks 1987; Erdrich *et al.* 2000; Hill 1987; Hingley 1992b; Owen 1992), which need not necessarily be the case. Before a further discussion of the role of Traprain Law in the Roman period is presented, it is necessary to conduct a brief review of the excavations, the chronology of site and the finds from it.

Excavations at Traprain Law have been periodically conducted over the last century. The earliest and largest of these excavations which occurred during 1914-15 and 1919-23, were conducted by Alexander Curle and James Cree, and focused on the western slope of the hillfort (Cree 1923, 1924; Cree & Curle 1916, 1921, 1922; Curle 1915, 1920). It was these excavations which produced the largest quantity of finds (including the famous Traprain silver hoard) but unfortunately the excavation was dug by arbitrary levels rather than by archaeological features, leading to confusion in determining their context (Erdrich *et al.* 2000; Hill 1987). A smaller excavation was carried out in 1939 by Stewart Cruden (1940), though this covered a limited area and allowed no greater

understanding of the sites sequence to emerge. This is similar to the results of the following excavation in 1947 by Gerhard Bersu (Close-Brooks 1983) and Strong's excavation in 1984 (Strong 1986). The quality and/or size of these excavations have all been relatively problematic in revealing a secure sequence for the site as a whole (Hill 1987, p. 85). Within the last decade, due to fire damage on the summit, a series of excavations have been carried out during 1996-7 (Rees & Hunter 2000), 1999-2001, and 2003-2004 (Armit *et al.* 2005). These last stages of excavation have produced dating sequences which may further illuminate the overall understanding of the site's chronology (Armit *et al.* 2005).

As this chronology has always been problematic (Hill 1987; Jobey 1976), a number of models have been proposed (Feachem 1958; Hill 1987; Jobey 1976; Stevenson 1966a). The most substantial of these outlines was Jobey's (1976), which was later modified by Hill (1987). Hill's model suggests eight phases in the occupation of the hillfort dating from the Neolithic to the sub-Roman period (Hill 1987, pp. 85-87). While the full nature of the sequence is complex, the phases which pertain most to this study are Three to Seven. The site was occupied in the Late Bronze Age; it is to this period that the extensive ramparts are believed to date (Jobey 1976, Hill 1987). This occupation period seems to have been fairly substantial and it may have been seasonal in nature, as has been suggested for Eildon Hill North (Owen 1992). The site may have acted as a centralised gathering place for the occupants of the local settlements in the region during the Late Bronze Age. Traprain Law has produced evidence for the manufacture of bronze goods during the period, which may have been carried out during these seasonal gatherings. This occupation seems to continue into the early Iron Age, but then possibly reduces, with a hiatus suggested during the Middle Iron Age (Stevenson 1966; Jobey 1976; Hill 1987). Both Jobey (1976) and Hill (1987) question this break in occupation and suggest that the lack of finds may be misleading. Recent dating evidence from the site seems to confirm the hiatus, with multiple dates attributed to the late Bronze Age and none for the Middle Iron Age (Armit *et al.* 2005).

If substantial occupation ceased during the Middle Iron Age, it is possible that the site continued to act as a gathering place, but lack of diagnostic finds during the period make this hard to assess. While Hill (1987) argues that the presence of small stone balls and coarse pottery indicates occupation, recent assessment of these finds indicate that they had a far longer currency than previously thought, and therefore cannot be seen to

be conclusive evidence (Evans 2006). It has been argued that the site was reoccupied in the Late Iron Age with a further extension of the ramparts (Feachem 1958; Jobey 1976), but this has been questioned by Hill (Close-Brooks 1983; Hill 1987), stating that the 'Great Terrace Rampart' was in a state of disrepair by the time (Hill 1987, p. 86). Some level of occupation must have occurred at this time or at some point in the early Roman period given the number of Roman finds from the site. Hill (1987) has argued for a interruption in occupation during the late 2nd century based on the coin evidence from the site, combined with a suspension of the settlement record from the period in the region (Hill 1987), though this hiatus may be a by-product of the availability of Roman material rather than actual abandonment (Erdrich *et al.* 2000; Jobey 1976). The site witnessed renewed activity during the 3rd and 4th centuries, and it is during this phase that Hill (1987) proposes that it acted as a ritual complex for the region, with the finds representing votive offerings rather that intense urban occupation.

The finds from Traprain Law have elicited much speculation and interest given the large quantity and the quality of Roman material. Exactly how should this material be interpreted further adds to the complex nature of the site. The Roman and Romano-British material unearthed during Curle & Cree's and Cruden's excavations were of high quantity and quality compared to those from known 'native' sites at the time. The site produced: sixty-five Roman coins (Sekulla 1982a, p. 285), one hundred and seven sherds of Samian ware (Erdrich *et al.* 2000), a large quantity of coarse Roman pottery (Cree 1923, 1924; Cree & Curle 1916, 1921, 1922; Curle 1915, 1920; Robertson 1970), Roman and Romano-British metalwork (Burley 1958), Romano-British glass bangles (Kilbride-Jones 1938b; Stevenson 1956), Iron Age pottery and metalworking moulds. Many of the artefacts can be directly associated with personal display, such as the large number of brooches and toiletry instruments. The evidence for craft production could imply that some of this material was produced on-site, but to what extent and specifically which items are difficult to assess. While the overall assemblage represents a substantial collection of material from the Roman Iron Age (and one of the most significant found on a non-Roman site in the north of Britain), the site may not be as unique as once believed.[67] The sites of Eildon Hill North and Burnswark, while only excavated on a small scale, could potentially produce a similar array of finds given what has been uncovered so far in their limited exploration. If site size is factored into the

[67] For a comparison of Roman and Romano-British finds from sites in the north see Appendix VII.

discussion, then some of the brochs excavated produce equally if not more impressive collections of material (Macinnes 1984).

The importance of Traprain Law during the Roman Iron Age, while often over emphasised, is still substantial and indicative of a specific role or function for the area at this time. The ritual function of the site, as argued by Hill (1987), was dependent on categorisation of material as primarily votive in nature rather than occupation, the resemblance of the coin pattern to that of Roman temple sites (Sekulla 1982; Hill 1987), and the nature of the roundhouses being dissimilar to others of the period excavated (Hill 1987, pp. 88-9). The interpretation of the coin evidence has been questioned by Close-Brooks, who has pointed out that Sekulla (1982) only noted the similarity with temple sites, but did not imply a parallel of function (Close-Brooks 1987, p. 92; Erdrich *et al.* 2000). Recently, it has been argued that the site could have been a Roman auxiliary fort (Erdrich *et al.* 2000, p. 453), given the similarity in the Samian pattern with other Roman auxiliary sites, yet this seems to have been a statement made to highlight the danger of drawing conclusions based on similarities in the material record and to further undermine Hill's discussion of the coin evidence (Erdrich *et al.* 2000). The roundhouse structural evidence has been debated as well, specifically that there are indeed hearths associated with houses (Erdrich *et al.* 2000), (contra to Hill 1987), and that they may have reflected permanent and urban occupation (Armit *et al.* 2005). The question of the votive nature of the finds reflect current understanding of Iron Age practice (Hill 1989; Hill 1995b; Hingley 1992b, pp. 36-9) and is not so readily dismissed, (contra Close-Brooks 1987) as is the often symbolic and ritual nature of hillforts (Bowden & McOmish 1987, 1989; Collis 1996; Hill 1995a, 1996; Hingley 1992b, p. 37). This indicates that care should be taken over drawing too clear a distinction between ritual and domestic in later British prehistory (see Hingley 2005, pp. 101-2).

7.4.5 How then should Traprain Law be viewed in the Roman Iron Age?

That Traprain Law was occupied in some form during the Roman Iron Age is not in doubt, as are the extensive connections of the occupants with southern Britain and the Roman Empire. While the site shows substantial structural occupation where space was limited (Armit *et al.* 2005), it is not conclusive that such occupation was year-round or should be called urban. The topography of the site itself would mitigate such arguments,

and evidence of the logistical capability within the surrounding landscape to sustain such a large population base is also questionable.[68] It is more probable that the site had a limited population which was supplemented during ceremonial events by the surrounding population (Hingley 1992b, pp. 37-8). These gatherings could have included the deposition of material and may also account for the evidence of craft production, which may have been undertaken as a form of display (Hingley 1992b, pp. 37-8). This may be analogous with the enclosed site of Over Rig in Dumfries, where the production of material was highly visible and of a ritualised nature (see Chapter 8 for further discussion of this site). The importance of Traprain Law as a ritual location may have stemmed from its role as a seasonal gathering place in the Late Bronze Age.[69] Indeed the site has been argued to have functioned as an 'ancestral home' (Hill 1987) or 'origin site' given its earlier role as a gathering place. The activities at the site could have reinforced group cohesion, acting as an ethnic marker through which the local Iron Age communities defined themselves. So, while a temple site during the 3rd and 4th centuries is clearly a possibility (Hill 1987), it is the earlier activities on the site which seem to imply a ritualised function. Given the exotic nature of Roman material during the period, it is likely that it was intentionally brought to the site for the purpose of deposition. Although it cannot be ruled out that such material may represent the existence of a urban centre or even if it is remote a Roman garrison on the site (contra Aitchison 1987; Hill 1987), especially in light of the evidence for Roman activity at other hillforts (see Millett 1990 for a model of Roman interaction with hillforts in the south; Frere (1986) for an overview). If the site did function as a symbolic cultural centre, it would have been susceptible to an emerging elite class who could have co-opted it using its role to solidify their position. This may explain the post-Roman association of Traprain Law with King Loth. Equally though, this may be nothing more than the continued use of the site as a symbolic ritual centre, as it is also associated with St. Kentigern and became a place of pilgrimage during the Medieval period (Curle 1915, pp. 285-6; Rees & Hunter 2000, p. 437).

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[68] This is not to say that the local population density and agricultural development were not sufficient, but rather there seems to be none of trappings one would associate with the redistribution of such goods during the period (large grain stores on settlement sites or the Hillfort itself, and the practicality of constantly supplying such a site). While such question will hopefully be addressed by the Traprain Law environs project, it is difficult to envision such a model from the current material available (Haselgrove *et al.* 2001, pp. 11-2).

[69] If we accept Owen's (1992) argument for Eildon Hill North and the other Late Bronze Age hillforts (Hingley 1992, pp. 37-8).

7.5 The Spatial Analysis of the Inveresk Region

Having set the background for the discussion of the Inveresk area by covering the main excavated sites, it is necessary to place these micro investigations into a larger macro analysis. To achieve this, a general review of the results of the spatial studies carried out on the settlement evidence and finds is evaluated. The results from each specific study will be discussed and a comprehensive model proposed for the Inveresk area in the discussion section. Given the nature of the general research questions, the emphasis is primarily on social analysis.

7.5.1 Enclosure Patterns

While significant evidence has emerged for a substantial number of unenclosed settlements in the immediate area around the fort of Inveresk, this has been the product of both intense survey and developer funded archaeology. Unfortunately, the picture created by such work is extremely localised, so the full extent of such settlement in the overall study area is not known. While it would be tempting to extrapolate such dense unenclosed occupation for the region in general, this would be highly speculative. Due to this, settlement analysis of the area has focused on the better represented (in the archaeological record) evidence for enclosed settlement. If the assumption that such sites represent higher status settlement (Haselgrove & McCullagh 2000) is correct, the results will be biased toward elite settlement.[70] Until evidence is available for a more inclusive settlement overview, these enclosed sites will continue to form the basis of archaeological research in the area.

Enclosures are well represented in the Inveresk area: the most substantial gap in the region is caused by the urban centre of Edinburgh (as seen on Figure 7-4). East Lothian is very densely settled as has been well attested in the academic literature (Haselgrove & McCullagh 2000; Jobey 1974b, 1982a, 1982b, 1985; Macinnes 1982; Macinnes

[70] Though such a conclusion could be potentially problematic given the number of sites excavated which date to the Roman period which have been 'open' sites rather than enclosed. In fact most of those that produce Roman material in the area have been 'open' sites which may question the interpretation of enclosed sites as higher status, or of their currency in this area during the Roman period (Alexander & Watkins 1998; Hanson & Maxwell 1983; Hill 1982a, 1982b; Macinnes 1982). Settlement hierarchy maybe a misleading topic though as it overlooks the reality that there would have been a social hierarchy within sites themselves and without a better understanding of overall society at the time it is premature to discuss nuances in that hierarchy which relate to intra site relationships. Overall, while the lack of visibility of 'open' settlements is problematic for any analysis of settlement survey, it is necessitated by the current potential of the existing material. In the end it may not prove to be all that problematic as many of the known open sites in southern Scotland contain an earlier enclosed phase which possibly indicates that 'open' settlement distribution may be addressed in an analysis of enclosed sites.

1984b; Maxwell 1970). While the enclosure distribution is fairly broad, there are significant trends. The first trend is a tendency for enclosures to cluster, especially on the coastal plain (see Figure 7-15). Such clustering does not appear to be the by-product of geological factors (see Appendix VI Drift geology and enclosure distribution). It has been argued that each enclosure probably represented a discrete social unit and, given the trend throughout the region, this does seem to be the most logical view (Haselgrove & McCullagh 2000, pp. 186-7). While this is not a new observation, the spatial analysis has allowed the validity of these clusters to be tested rather than relying on observation (see Appendix. V Spatial analysis of the settlement dispersions and patterns). The fact that these sites do spatially cluster is an informative observation, unfortunately it does not make interpretation any less problematic. If we accept Tobler's (1993) thesis, which is primarily concerned with spatial relationships, that all things are related, but nearer things are more related, it would be a straightforward assumption that such spatial clusters would represent a higher level of social interconnectedness. The implication follows that these enclosure clusters represent discrete social networks.

The next question would be: what level of social organisation do they represent and how do the clusters interact? Do these clusters point to a level of fragmentation in the late Iron Age with multiple interest groups and an overall hierarchy that is not very secure? The content of the clusters themselves consist largely of circular enclosures; rectilinear enclosures are under represented. Wise's (2000) observation about the Tweed valley settlement clusters often containing one rectilinear enclosure each is not evident in the Inveresk data. While circular enclosures tend to cluster, they are also fairly evenly distributed in regard to the overall area (see Figure 7-16, 7-18). There is also only a limited correlation between circular enclosures and Roman roads. This is not mirrored by the rectilinear enclosures, which tend to be more unevenly distributed and have a significant association with the roads (see Figure 7-17, 7-19 and Appendix II).

This spatial patterning is clearly evident in the kernel smoothing, with both the overall enclosure and circular distribution highlighting a dense pattern along the coastal region to the northeast of Inveresk (see Appendix Figures 31-32). There is also a slightly less dense region of circular enclosures along the Roman road running to the southeast from the fort. The rectilinear enclosures show a very different pattern with the very little density along the coastal regions and a very strong clustering along the Roman road, which is visible from the density of settlement alone (see Appendix Figure 33). This

technique highlights the density of these features by make the patterns easier to distinguish with the naked eye.

If the date range of Roman Iron Age through to the Early Medieval period is accepted for rectilinear enclosures, then the evidence would point to a shift in settlement location which could be connected to the Roman forts and roads. The Roman forts, with the exception of Cramond, fall into areas of densely enclosed settlement (see Figure 7-15). This may have played a factor in the location of the forts. This lack of settlement seen around Cramond is most likely the reflection of the early urbanization of the area around the fort.

7.5.2 Roman Coin Evidence

The distribution of Roman coins within the Inveresk study area can be seen in Figure 7-20. The patterns are notable for a number of reasons. First, the distribution of the coins is only loosely associated with the enclosed settlement pattern (see Figure 7-21). In contrast, the coin data highlights clusters directly associated with the Roman forts, which is to be expected and is attested in the other study areas. However, there is no strong correlation of Roman coins and Roman roads, which is especially interesting given the high levels of 'native' settlement in these areas (see Figure 7-22). This could point to a strong centralised local hierarchy which exerted control over the distribution of such finds, or that coins were primarily deposited at large ritual sites such a Traprain Law, effectively limiting their distribution. The Roman coins can be seen to have facilitated a specific function in society which was associated with a distinct social group for symbolic purposes. It should also be remembered that such material was most likely reused and could also play a role in localised industry (see discussion in Chapter 5). What is most significant concerning the distribution of Roman coins, is that it does not support the view that the settlements in the area participated in a larger market economy with the Roman forts (contra Breeze 1989).[71] While such trade most likely occurred, the nature of such exchanges were either in kind or only a limited portion of local society benefited from such exchanges. There are though a number of coin incidences along the coast and a considerably larger number occurring in what is now the urban area of Edinburgh (see Figure 7-23). Such a large occurrence of coins is probably the by-product of a higher retrieval pattern associated with the urban development of the area. However, the number in the area is still high, and relatively

[71] See Chapter 5 for a discussion on market economy in the Roman north.

scattered, possibly indicating an area of increased local access to Roman coins. The presence of another Roman fort somewhere in the urban area of Edinburgh should not be ruled out. Another possibility is that it may indicate that the region had a greater amount of Roman coins and there may be a comparable distribution in the non-urban areas that have not been excavated. The implication of this is that access to Roman coins was significant in this area and Roman coins may have played a more substantial role in the local economy and society than previously acknowledged. This assumption though would need to be further explored before it could readily be accepted.

7.5.3 Roman Finds Distribution

The Roman finds distribution is demonstrated by a number of patterns. Some of these patterns clearly represent collection issues, such as the high number of finds along the coast, but given the nature of settlement in this region it may be reflective of the dense settlement (see Figure 7-24). There are also clusters of finds immediately around the forts which are most likely associated with the extramural settlements. Many of these are associated with secure Roman contexts and should not be factored into the discussion of Roman finds in non-Roman contexts, but given recent work in the Inveresk area, which has found evidence for Roman material in what are clearly indigenous contexts, even this should not be taken for granted (see Bishop 2002b; Cook 2004).

While the connection between Roman finds and Roman roads is stronger than that for Roman coins, it is not as significant as in the other study areas (see Figure 7-22 and Appendix III). Interestingly, the distribution of Roman finds contrasts with the distribution of Roman coins and may indicate that they had a different role within society. Roman finds appear to be associated with enclosure sites. What is most interesting about the Roman finds in the Inveresk area is the high proportion of mixed finds assemblages, those which contain both Roman and 'native' goods. This would seem to support the conclusion that such goods were incorporated into local practices. This has been influenced by the visibility of 'native' finds in the area especially local pottery, which is often not found as widely in the Borders as it is in East Lothian. Roman material does seem to be available in the area and primarily dates to the second century, highlighting the connection to early Roman occupation of the area.

7.6 Discussion

It has been important to place the spatial analysis in context by reviewing the better understood contextual evidence from excavated sites. Both scales of analysis have the overall potential to further enrich understanding of settlement and landscape. In order for the spatial analysis to contribute to discussion of society in the Roman Iron Age, the results of such an analysis need to be interpreted and placed within a larger framework or model.

7.6.1 The Iron Age

In order to assess the impact of the Roman presence on the social organisation and cohesion of the local community, an understanding of society in the late Iron Age of the region is needed. In the last twenty-five years, several discussions have proposed models which present a general chronology and settlement pattern for the region (Harding 1982; Harding 2001, 2004, 2006; Hill 1982b; Hingley 1992b; Macinnes 1982; Macinnes 1984b). Recent excavations have confirmed many of the conclusions, but have also highlighted that these issues are often far more complex on individual settlements (Alexander & Watkins 1998; Cook 2004; Crone & O'Sullivan 1997; Driscoll & Yeoman 1997; Haselgrove & McCullagh 2000; Hill 1982a; Simpson 1969; Simpson *et al.* 2004). The general understanding of settlement in the Lothian region is that the late Bronze and early Iron Age was a period of unenclosed settlement with numerous substantial houses (Hill 1982b; Hingley 1992b; Macinnes 1982), with evidence for some occupation of enclosed hillfort sites (e.g. Kaimes Hill, Castle Rock, and Traprain Law). However, the large hillfort of Traprain Law probably falls into a different category from these other hillfort sites. This is not only due to size, but also function, as it has been argued that a major phase of occupation occurs in the Bronze Age. This occupation was most likely seasonal in nature with the site acting as a communal gathering place, a situation which is mirrored at the site of Eildon Hill North (Hingley 1992b; Owen 1992). The occupation and use of such sites seems to have been reduced during the Iron Age (Owen 1992). The smaller hillforts show continuity of settlement and should not necessarily be seen as different from other enclosed sites that tend to dominate the mid to late Iron Age in the region (see Figure 7-25). This phase of enclosed settlement often overlies earlier settlement locations and shows considerable evidence for multiple phases of occupation and site development (Armit 1999b; Haselgrove & McCullagh 2000; Hill 1982a, 1982b; Hingley 1992b). Many of the

enclosures display evidence for multiple changes in the enclosure ditches and spatial location of the round houses contained within (Haselgrove & McCullagh 2000; Watkins & Alexander 1998). It has been argued that such alterations may be responsible for the multivallate appearance of some of these enclosures (Hill 1982a, 1982b, 1982c; Hingley 1992b, p. 30). While this is clearly shown in some of the excavated enclosures, further research is needed to explain why some of the sites lack such phasing and whether all multivallate enclosures are actually a by-product of multiple phases of occupation (The archaeology of Chesters, (East Lothian) seems too complex to rule out the possibility that one of its phases was multivallate).

In the Inveresk region, the circular enclosures cluster into discrete groupings (see Figure 7-16 and Appendix V). While there has been some discussion of what social level is represented by these enclosures, interpretation is still largely a matter of conjecture (Haselgrove & McCullagh 2000; Hingley 1992b). There is the possibility that the enclosures represent communities in their own right (Feachem 1966; Hingley 1992b) while this is a reasonable arguement with regards to some of the larger sites (e.g. Broxmouth), it is more likely that many of the enclosures represent discrete households (Hingley 1989, 1992b, p. 31). This is supported by the clustering of such sites, as these clusters would most likely have functioned at the community level. The settlements within these clusters would have been socially interconnected and such connections would have been reinforced through kin ties, intermarriage, animal husbandry, and communal projects. These very networks could have provided the pooled labour necessary to construct and modify the enclosure ditches (Haselgrove & McCullagh 2000; Moore 2006). Aside from the labour necessary to construct the enclosure ditches, these settlements seem to have been fairly self sufficient during this period, as most of the finds attest to local manufacture (for discussion of the pottery, (see Cool 1982; Haselgrove & McCullagh 2000, p. 69), and for evidence of metal working, (seeAlexander & Watkins 1998; Haselgrove & McCullagh 2000; Hill 1982a). The two styles of pottery are likely "the result of a shared tradition rather than of centralized production" (Hingley 1992b, p. 35).

The lack of goods which can be connected to personal display is notable (the exception being combs and possibly the carved stone balls which could have fulfilled such a role (Cool 1982)) and could point to social hierarchy being determined and reinforced through factors other than personal display, such as resource and land control or social

relations (brooches, such as the example from Braidwood, can reasonably be seen as 1st century imports). While evidence for agricultural production during the Iron Age was scarce in the south east of Scotland (Hingley 1992b, p. 35), recent work has contributed to a fuller understanding of these practices (Alexander & Watkins 1998; Barnetson 1982; Haselgrove & McCullagh 2000). Cord rig is well attested in southern Scotland (Topping 1989) and the area around Inveresk has produced substantial evidence for field divisions and boundaries (Cook 2002, 2004; Hanson 2002a; Leslie 2002). Finds of both querns and animal bones indicate that such sites practiced a mixed economy (see especially Haselgrove & McCullagh 2000), and this compares with evidence for increased deforestation (Dark & Dark 1997; Dark 2000; Manning *et al.* 1997; Tipping 1997), which was probably a by-product of these practices and the density of settlement.

The evidence for a centralised, politically cohesive system in the area during the Iron Age appears to be lacking in the settlement evidence. Rather, the groupings of sites would seem to indicate that such organisation was more localised, flexible and in a constant state of negotiation, similar to the conclusions Haselgrove (1989) draws for the Late Iron Age in the south east of Britain. Yet there has been a persistent tendency to view this area as part of a larger tribal territory during the Late Iron Age, that of the politically coherent *Votadini*, organised in a central place hierarchy focused on Traprain Law, akin to that at Danebury (Hanson & Maxwell 1983; Jobey 1976; Macinnes 1984b; Macinnes 1989). There are a number of problems with Traprain Law functioning as a central political elite residence during the Iron Age. First, the model of such hillforts serving as centralised elite sites have recently been criticised in southern Britain (Hill 1995a, 1995b, 1996) and Scotland (Bowden & McOmish 1987, 1989; Hingley 1992a, pp. 37-8). Second, the evidence for Traprain's prominence is predominantly a back projection of finds from the site which point to a high level of importance, or at least archaeological significance, during the Roman Iron Age (Hill 1987). This is not to say that Traprain Law was not of importance during the Iron Age, but that there seems to be no evidence for elite occupation, unless the physical significance of the site is considered to be paramount. The finds from this period are not markedly different from Broxmouth and the evidence for substantial occupation during the Iron Age is debatable (Hill 1982a, 1987; Jobey 1976).[72] Yet given the site's proposed communal role during the Bronze Age, it is possible that it fulfilled a significant symbolic function during this

[72] It should be noted that Iron Age finds are rare in comparison with both Bronze Age and Roman Iron Age finds at the site; finds include examples of carved stone balls.

period as a perceived origin site, highlighting a shared ancestry which draws on the monumental elements of the site, which may explain the role attributed to such sites (see Hill 1987; Hingley 1992b, p. 40; Owen 1992).

During the Late Iron Age, there appears to be general changes in both specific settlements and overall trends. It has been argued that the beginning of the Roman period brought about a general trend towards unenclosed settlement (Hanson & Maxwell 1983; Hill 1982b; Macinnes 1982). This was once thought to be the direct consequence of the *Pax Romana* (Hanson 2002b). Excavation has shown that while some sites shifted from enclosed to unenclosed (e.g. Broxmouth, St. Germains), the change appears to predate the Roman period and cannot be realistically attributed to Roman occupation (Alexander & Watkins 1998; Hill 1982a). The Late Iron Age does seem to be a period of some social upheaval or change, as seen through the settlement form and occupation. In addition to changes on some sites from enclosed to unenclosed settlement, there is evidence that other sites were abandoned (Port Seton East, Kaimes Hill) or reduced in size (Port Seton West) (Haselgrove & McCullagh 2000; Simpson *et al.* 2004). The rectilinear enclosures at Port Seton West and Brixwold[73] seem to also date to the Late Iron Age (Crone & O'Sullivan 1997; Haselgrove & McCullagh 2000). Given the early date range for most of these occurrences, it is not feasible to attribute them to the Roman conquest, yet the abandonment at Port Seton in the 1st century AD with a limited phase of occupation in the 3rd century, is interesting in that it covers broadly the Roman occupation of the area (Haselgrove & McCullagh 2000). Fundamental changes then were occurring in the area prior to the Roman conquest with a variety of different site types occupied.

7.7 The Roman Advance

The Roman advance into the area first occurred during Agricola's northern campaigns, the only Flavian fort in the area was Elginhaugh, in fact the largest military presence was focused north of the Clyde-Forth boundary (Breeze & Dobson 1976; Hanson 1980a, 1980b; Hanson 1987; Hanson & Maxwell 1983). While the forts in the north seemed to have been abandoned in the late 80s AD (AD 88 being the commonly held date), those

[73] Brixwold is a confusing site in that is seems to contain two phases for the rectilinear enclosure, having produced a date for the 4th-2nd century BC at the base of the ditch and two dates in the 1st-2nd century AD in the fill. Whether this indicates a continued occupation or two phases is a matter of conjecture (Crone & O'Sullivan 1997). Also it probably places the possible construction of the feature in the mid Iron Age rather than the Late Iron Age.

to the south continued to be occupied until some point during the Trajanic period. This suggests that Elginhaugh could have been occupied, at the most, for twenty to twenty-five years (Breeze & Dobson 2000, pp. 9-15), although, in reality, it was probably occupied for a far shorter period. As has been discussed, the area was densely settled and extensively cleared (Tipping 1992), which might attest to the "extensive use of alder rather than oak in the gates and towers at Elginhaugh" (Hanson 2002b, p. 838). The fort was located at a crossing of the Esk River and the immediate area around the fort contains a cluster of settlements (see Figure 7-15). It is hard to assess the initial impact of the Roman presence, as it was fairly short lived, and introduced little Roman material culture which found its way onto the local sites, though the presence of first century pottery at Castle Rock could be attributed occupation (Driscoll & Yeoman 1997, p. 133). If the placement of the forts is an indication of where the primary campaigns occurred during this period, then this region seems to have been largely unaffected by this first Roman advance. Yet surely these developments must have had a psychological effect on the local population and prepared them for what to expect during the Antonine reoccupation of the area. Indeed it is entirely probable that the Flavian occupation accounted for some of the shifts which occurred in the area during the late Iron Age.

7.8 The Antonine Period

The next significant occupation of the area by Roman forces occurred during the Antonine period. The campaign was undertaken by the governor Lollius Urbicus and took place between AD 139 and 140 and was completed by AD 142. Whether the campaign was due to internal Roman causes or was a reaction to native activities further north has been debated, but regardless of the reasons for occupation, it is important in the context of this study that occupation occurred (Breeze & Dobson 2000, pp. 88-90). Southern Scotland was reoccupied and the Antonine Wall was constructed between the Forth and Clyde estuaries, the construction began in AD 143 (Hanson & Maxwell 1983). In the study area the forts of Cramond and Inveresk were constructed, an *ala quingenaria* (cavalry unit of about 500) was stationed at Inveresk. It is interesting to note that the location of Elginhaugh was not re-used during this occupation pointing to a shift in either tactics or internal factors in the region (Breeze & Dobson 2000, p. 113). It is during this period that the Roman occupation seems to have had the greatest impact on the local population in regard to material culture (Hunter 2001; Robertson 1970).

The impact on settlement is a far more complex question, as many of the trends attributed to the Roman occupation (e.g. shift to unenclosed settlement) seems to have occurred during the Late Iron Age. The evidence for rectilinear enclosures is a possible exception. While no single date range can be attributed to their construction, there is a broad trend for these features to have been constructed during the Roman Iron Age, probably continuing into the post-Roman period (see Chapter 4 for a discussion of the dating evidence available from these sites). The number of these sites around Dere Street and the fort at Inveresk (see Figure 7-17) is so substantial that it requires explanation. In the wider region, a spatial association between rectilinear enclosures and Traprain Law has also been noted (Armit 1997a, p. 103; Mattingly 2006, p. 424). While in the Inveresk study area, there are examples of rectilinear enclosures that predate the Roman occupation, they are likely to have remained occupied during this period (Crone & O'Sullivan 1997; Haselgrove & McCullagh 2000). There are two possibilities for interpreting the association between rectilinear enclosure and the Roman infrastructure. The first is to assume that all of these sites predate the Roman period and that the Roman occupation of the area responded to the distribution of local settlement. While the overall enclosure data suggests that the military occupation occurred in a highly populated area, this implication would be further supported by such a model. The second interpretation is that while some of these rectilinear sites were occupied before the Roman occupation, they represent a trend that continued through the Roman period. The general association of these sites with the Roman roads and forts should then be seen as a change in the local demography which occurred throughout the Roman period, a shift toward economic or social centres. Whether this was a shift of a large portion of the population or the just the emergence or relocation a group of elites is more problematic; the evidence for abandonment from Port Seton and Kaimes Hill could be related to this trend. While the rise in importance of the site of Traprain Law could account for a shift in that area, the prevalence of such sites in the Inveresk area would indicate a connection with the Roman garrison. Given the varying nature of the evidence for rectilinear enclosures, the second option is more likely, yet why was there a rise in site numbers around the Roman fort? It is possible that such sites were supplying the Roman garrison with agricultural goods and it was therefore beneficial to be closer to the fort or road network. Another possibility is that power relations were being renegotiated during the period, accounting for a shift in settlement to these two perceived important regions, around Traprain Law and the Roman forts and associated infrastructure.

The Roman forts of Cramond and Inveresk had a complex supply mechanism; many of the goods were supplied from further afield in Britain and the Empire, as is typical of most Roman forts. However, there does seem to have been a tendency on both sites to supplement such supply with locally produced goods. Pottery is a prime example of this; while both sites contained considerable quantities of imported ware (Holmes *et al.* 2003; Thomas 1988), they have also produced evidence for local wares. Inveresk ware demonstrates considerable variation in form and was manufactured in either the fort or *vicus* (Swan 1988, pp. 167-71), while Cramond contained not only a majority of locally produced grey ware (Ford 2003, p. 63), but also a locally produced ware which bore similarities of fabric to the local Iron Age pottery (Ford 2003, p. 86). Ford argues that while the forms are clearly Roman in nature, this ware was produced by indigenous local potters learning from their Roman counterparts (Ford 2003, p. 86); this claim would be difficult to support without contextual analysis of the finds. This tendency to augment pottery supplies locally could be mirrored in supplies of agricultural goods. The evidence from Elginhaugh seems to support local agricultural supply of the fort (Hanson 2002b, p. 838). Whether the agricultural goods were acquired through taxation or exchange is a more difficult issue to address, but the wide distribution of Roman finds in non-Roman contexts from this period may attest to some form of exchange occurring in addition to any taxation.

Where these exchanges took place is also a problematic question. While it is entirely possible that the collection of agricultural goods occurred at individual sites in the region, more realistically they were delivered to the forts or *vici*. In fact, the *vicus* at Inveresk has produced native finds which may attest to this site acting as the focal point for exchange in the area (Hunter 2002, pp. 72-4). The extensive nature of the *vicus* at Inveresk, and partial evidence for one at Cramond, indicates significant Roman settlement in the area and possible broader contacts in the wider landscape. While *vici* in the north are not as rare an occurrence as once perceived (contra Breeze & Dobson 1970; Salway 1965), positive evidence is still limited to a small but growing number of sites (see Breeze 2002a; Clarke & Wise 1999; Holmes *et al.* 2003; Thomas 1988, p. 163). The evidence for the *vicus* at Inveresk clearly indicates that it was comparatively urban in nature (Thomas 1988) and may have served a larger purpose than just servicing

the fort.[74] Hunter (2002, pp. 77-8) has discussed the implication of two inscriptions dedicated by an Imperial Procurator at Inveresk, whose presence could indicate the potential importance of both Inveresk and the surrounding landscape.

The distribution of the majority of Roman finds in the area relates to this period, though it should be noted that this does not mean that all sites with Antonine finds can be clearly dated to this period, as such finds could have been deposited at a later date. Given the presence of the Roman forts, it is not a surprise that there is a peak in the finds during this period but is should also be noted that post-Antonine pottery was found at Castle Rock (Driscoll & Yeoman 1997), Traprain Law (Hill 1987) and Inveresk (Bishop 2002a), which attests to a non-military supply in the area (see also Hunter 2002). The distribution patterns of both Roman coins and finds are fairly widespread throughout the area, though the quantities vary by the nature of their context. Most settlement sites produce small quantities of high quality Roman finds in the region, with some notable examples (e.g. St. Germains and Castle Rock). While these trends are probably a factor of deposition practices and reuse of such material in local contexts (Hingley 1992b, p. 37), the larger quantities found at St. Germains and Castle Rock could be seen as exceptions to the norm. These larger quantities could attest to stronger personalised contacts with the Roman garrisons. Indeed, the large quantity of Roman coarse ware at Castle Rock may indicate the utilisation of Roman material to fulfil a function previously associated with localised pottery, indicating a different association for this material than is normally assumed on non-Roman sites in the area. Castle Rock has produced little material that would differentiate it in status from other Iron Age sites in the region, yet shows a marked increase during the Roman period. Was this reflective of a pre-existing elite system that was not indicated by or even visible through portable finds?

Another possibility is that the finds reflect increased contact between this site and the Roman garrisons. Such an occurrence might have had little to do with the role of the site in the local settlement hierarchy, but relate to the well established Roman trend of interacting with large hillfort sites in Gaul and southern Britain (Millett 1990; Woolf

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[74] Granted that it does not compare with many of the civil sites in the south in terms of scale and density of occupation, it must be remembered that the site was only occupied for a relatively short while. In the context of Roman Scotland, it was arguably the most urban of any site found so far dating to that period and would have been a radical departure from the settlement norm. Millett has emphasised a need to see forts and their accompanying *vici* as urban entities in their own right to address the often imbalanced view of a significant north/south divide (Millett 2001, pp. 64-6).

1998). In this way the Roman units may have inadvertently or intentionally bolstered the status of the settlement and its inhabitants over other local elites. Such evidence could indicate the rise of new and more coherent elites in the area which was attached to the Roman presence and support Breeze's (1989) model of unification resulting from the context of military expansion. However, the 'native' use of Roman material culture should not be seen as a one sided process. Hunter (2001) has argued that much of the material was utilised in traditional local contexts. The evidence of re-use of Roman goods as raw materials in the construction of local 'native' objects (see Chapter 5), at sites like Traprain Law and possibly St. Germains, attests to a desire to transform such material. In fact this transformation of Roman material could be seen as a local desire to reassert influence and control at a time when such factors were increasingly perceived as beyond their control.

7.9 The Post-Antonine Period

The evidence of post-Antonine activity in this area is more complex than existing models have traditionally suggested, as there is evidence for further occupation at Cramond which may attest to continued Roman interest. It is also clear that unlike other areas of Scotland, there is a steady flow of Roman material into the area. While not as significant in quantity as the Antonine material, it does highlight a degree of contact during this period. There is also evidence during this period for the re-occupation of some sites (Port Seton West and Kaimes Hill) and the area around Inveresk fort (Cook 2004). Also the *vicus* at Inveresk seems to have continued after the Antonine period. Bishop (2002) accounts for this by arguing that the fort continued into the post-Antonine period as well, which could be supported by the continuation of occupation at Cramond. This is not the only possible conclusion though, as it is possible that the *vicus* continued on after the fort for a number of years before finally being abandoned due to either local factors or the distance from the main Roman supply network (contra Thomas 1988). Indeed, that this interpretation is not considered an option reveals more about the bias of archaeologists working in the area than the evidence itself. It would favour the model forwarded by Webster (1966), Millett (1990) and Sommer (1999b) for southern Britain and the German *limes*, where after the abandonment of forts, the *vici* often remained occupied and was transformed over time into small towns. Yet even if this interpretation is viable in the current area, it seems to represent a short lived

occupation, which is probably a factor of its distance north of the relocated Roman economic zone after the abandonment of the northern Antonine forts.

7.10 Souterrains

In any discussion of post-Antonine evidence in the Inveresk area, [75] special consideration of the phenomenon of souterrains is unavoidable. The debates surrounding souterrains in Scotland are complex,[76] and it is not within the remit of this study to reinterpret their broader significance in Scottish archaeology (see Figure 7-26). Yet in order to fully assess their significance in this area, a short review of the evidence is needed. The souterrains densest area of distribution is north of the Forth, in the modern areas of Tayside and Angus (see Figure 7-27), and these structures are primarily associated with unenclosed settlement (Armit 1999a, p. 581; Halliday 1985; Maxwell 1987) (but see Davies 2007, pp. 278-9). While there has been considerable debate over their function (Armit 1999a; Barclay 1980; Hingley 1992b; Wainwright 1963; Watkins 1984; Welfare 1984), the generally accepted view is that souterrains acted as some form of grain storage (Armit 1999a; Hanson 2002b, p. 837; Hingley 1992b; Watkins 1984). While this function is generally accepted, consideration of the possibility that such features also had a ritual element should not be dismissed and is especially pertinent to the discussion of the southern souterrains (Armit 1999a, p. 583; Hingley 1992b, p. 29). The souterrains social role as grain stores has also been the focus of debate, especially the causes of a speculated abandonment during the 2nd-3rd Century AD (Armit 1999a; Watkins 1984). Watkins (1984) argues that they were centralised grain stores for the local elites and represent a distinct phase of social hierarchy. Their 2nd-3rd Century abandonment can be seen as a shift to a more centralised system which he attributed to the rise of the 'Picts' (Watkins 1984).

Armit (1999a, p. 589) has argued that given the increased number of souterrains which have been identified, rather than representing an elite feature, they should be seen as "a more or less standard feature of agricultural settlements in that area during much of the second century AD" (Armit 1999a, p. 589). Indeed, Armit favours a relatively short period of construction and abandonment of souterrains in the area to the north of the Forth and attributes the causes of their construction and abandonment to external factors

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[75] The souterrains of the Newstead area are also included in this discussion as the small sample in that area does not warrant a separate discussion.
[76] See Armit (1999a) for a fuller discussion.

rather than internal social change. He argues that the souterrains acted as grain silos providing a surplus which could be traded with the nearby Antonine garrisons (Armit 1999a, p. 593). The abandonment would have occurred after the withdrawal of the Roman garrisons with the end of a ready market for such surplus (Armit 1999a, pp. 593-4). The presence of Antonine period Roman finds in the destruction layers is highlighted as support for abandonment of the souterrains during this time (circa 160s AD), and given that the settlements seemed to continue in occupation, a military intervention was ruled out (Armit 1999a).

There are some problems with Armit's argument. First, it relies heavily on the assumption that Roman material culture would have had a short life span in the area in order to create a secure abandonment horizon in the post-Antonine period. The use of Roman material in dating such contexts is problematic as there is no guarantee that such material would not have been in circulation for a longer period ((see Coleman & Hunter 2002, p. 97), for a further discussion of the Roman finds in relation to souterrains). Also the argument does not address the fact that some of the souterians date to outside of this period (Davies 2007, pp. 278-81). Indeed, most of the souterrains south of the Forth seem to have been constructed during the late second or early third century AD, and Newmill (Watkins 1980), which is north of the Forth, produced dating evidence for Iron Age construction. Armit (1999a, p. 594) accounts for the southern souterrains construction dates occurring after the Antonine withdrawal by arguing that they mirror the function of the souterrains further north, as they are supplying the outpost garrisons of Hadrian's Wall, their rise and abandonment is slightly later.[77] This does not account for the earlier construction date at Newmill and it is far more likely that their activity cannot be so readily connected with the presence of the Roman garrisons (Hanson 2002b, p. 837). However, it may be over-simplistic to seek a uniform reason for the construction and overall distribution of souterrains as they may be the product of localised factors which would have varied by area and over time. This critique does not rule out the usefulness of such models in creating a narrative to facilitate greater understanding of the period both by placing these features within a larger context and creating a theory against which future evidence might be tested. One of Armit's most interesting observations (1999a) is the connection between Severan marching camps and the distribution of souterrains; (see Figure 7-28). If the dense areas of souterrains

[77] One has to ask why they were abandoned, given that their postulated purpose would continue until the abandonment of Hadrian's Wall.

are taken to represent both rich agricultural land and a densely settled and populated zone, the Severan military campaign seems to focus on this area.[78]

The southern souterrains, as already stated, seem to be primarily a late second or early third century occurrence (Welfare 1984). This date is based on the incorporation of Roman masonry into their construction (e.g. Crichton, Newstead 1, and Shirva) and the presence of Roman finds (Castle Law). Such a date range coincides with the Antonine withdrawal and could represent the desire to store surplus for trade with the Roman garrisons further south. It could, however, also point to the adoption of a storage tradition in the area to deal with new surplus created by the Roman withdrawal, as the Roman forts appear to have been acquiring grain locally, either through trade or taxation (Hanson 2002b). The other possibility is that the dating of these features is too narrow and, given the Roman material, all that can be securely stated is that construction occurred after the Roman garrison abandonment and this could place their construction in a broad range from the post Antonine period through to the early Medieval period.

The tendency of the southern souterrains to contain Roman masonry has interesting implications. It has already been noted that there could be possible ritual associations (see Hingley 1992b, p. 29). While reuse of stonework in these features has functional characteristics, the distances involved in transporting the material seem to outweigh solely economic benefits for sources of pre-cut stone. This is paralleled at Inveresk where post Antonine structures (structures 3 and 5), most likely local houses, reused decorative Roman masonry in their construction. This material would have "required considerable effort to recover them and carry them over perhaps as much as a kilometre" (Cook 2004, p. 155). The stones used in the souterrains seem to have been decorative in nature (Hingley 1992b, p. 29; Welfare 1984) and the Inveresk examples contained part of a plinth (Cook 2004). Crichton Mains also contained part of a cup-and-ring stone incorporated into it, which is mirrored in other souterrains (Hingley 1992b, p. 29; Wainwright 1963). In the local area the hillfort at Kaimes Hill had cup-and-ring-marked stones incorporated into the enclosures, which indicates there was a local tradition of utilising such material (Simpson *et al.* 2004). Hingley has argued that such reuse has a symbolic function and is well attested in the Iron Age, especially Iron Age Scotland (Hingley 1992b, 1996a, 1999). While the symbolic use need not rule out

[78] Though this might also represent a cropmark bias which would cause an over representation of both Roman camps and souterrains in the areas.

the souterrains as grain stores, it does highlight that there was other significant consideration in their construction. The fact that so many souterrains in southern Scotland utilised Roman masonry could represent the desire of their constructors to harness the perceived power of these objects, making a statement about their own relationship to the Roman presence. Equally it could be an attempt at self empowerment, where the utilisation of the objects represents a desired mastery over them, a negotiation of power relations, which could mirror the discussion over reuse and transformation of Roman material culture into local objects occurring at sites like Traprain Law (see earlier discussion). As such can it be seen as a deliberate act to reaffirm the builders own place in society during the post Roman period.

7.11 The Severan Period

The Severan advance was cut short due to Severus's death at York and the abandonment of the campaign by his sons for political reasons (*Breeze & Dobson 2000, pp. 139-41*). Most of the campaign was focused north of the Forth, but Cramond was reoccupied on a reduced level and a large supply annex was constructed next to the fort (Holmes *et al.* 2003). This seems to indicate that Cramond was a supply point for the northern fortress of Carpow. Cramond was most likely chosen as a secure zone close to, but outside of, the campaign area and because of the pre-existing harbour readily reconnected to the Roman supply network. Why Inveresk was not reoccupied during this period is not known, but given its similarities with Cramond, it points to Roman strategy rather than local factors.

7.12 Conclusion

This chapter set out to re-evaluate the interaction between Roman garrisons and the local population in the Inveresk region, in light of both recent excavation and spatial analysis of settlement distribution. This material has the potential to contribute to the understanding of the impact of Roman fort placement and infrastructure on the local population, but to also distinguish trends and shifts in the local demography of the area and to lead to a greater understanding of society in the Roman Iron Age. The region of Inveresk is significant in the Roman period for the wide distribution of Roman material culture greater than elsewhere in southern Scotland; often this material is incorporated directly into local non-Roman contexts. This would indicate a greater familiarity with

these objects amongst the local population, but they still may have been viewed as exotic or even polluting, as the tendency to deposit such objects attests. Much of discussion of settlement patterns is dependent on cropmark evidence. Its potential to illuminate the discussion of regional trends has been sorely underappreciated. The patterns of settlement which have been revealed through GIS analysis indicate that the region is composed of closely bound communities, which are often spatially separate from one another. Such distributions question the idea that these enclosures represent elite dwellings, though this may have been a role of rectilinear enclosures, which on the whole demonstrate a more isolated pattern in general, aside from the tendency to fall near Roman roads.

In order to assess the level and nature of interaction in the Inveresk area, it has also been necessary to review the earlier Iron Age period in the region and propose a regional model of development and chronology. The Iron Age of the region is characterised by a variety of settlement forms and complex occupational sequences. The Roman advance appears to have had a substantial impact on the local population. The placement of Roman forts specifically targeted densely populated areas, and there is some indication that it resulted in an upheaval in the local settlement pattern with some sites being abandoned around this time (see section 7.6.1). Other sites continue in occupation, so such an impact is unlikely to be the result of large scale clearances on the part of the Roman garrisons. Rather than systematic trends, it may have been brought about by a shift in stability caused by the Roman presence or reflect the varied and discrepant nature of interaction between individual communities and the Roman occupiers. This seems to be followed by the increase in settlement occupation near Roman roads. Whether these settlements were occupied by the populations of the recently abandoned settlements is hard to assess given the chronological limitations, but this must remain a possibility. It could also indicate that there was a change over time in the practices of the garrisons of the local Roman forts, where initially settlement in the region could have been discouraged. Given the increased needs of long scale occupation for the forts inhabitant's, farmsteads may have been later encouraged as a means of supplementing the erratic supply attested in the archaeological remains of both Inveresk and Cramond (see section 7.6.3). Roman pottery appears to have been supplied to local sites during this period, but the coin evidence continues on after the Roman withdrawal. Occupation at both Cramond and Inveresk continued longer than has traditionally been considered and may reflect the close supply integration with local settlements. When it ceased, the

upheaval in the immediate Inveresk region would have been significant. There is evidence for occupation of areas around the Inveresk fort by local communities which appear to go out of their way to incorporate Roman masonry into their new structures (see section 7.6.5) highlighting a possible anxiety to reassert their positions in the post-Roman period.[79]

It has long been argued that the larger region, of which this study area represents a sizeable portion, maintained friendly relations with the Roman military (Armit 1997a; Armit *et al.* 2006b; Birley 1974; Breeze & Dobson 2000, p. 212; Frere 2001, p. 291; Hanson 2002b, 2004; Hanson & Maxwell 1983; Hunter 2002; Macinnes 1982; Salway 1965). Most of the arguments to support this friendly relationship have been circular in nature. They highlight the absence of a large military presence in the overall area and the quantity and quality of finds from Traprain Law to indicate positive relations, both of which are problematic. Fort placement is often an inadequate measurement of the nature of relations between the Roman military and the local communities (Breeze & Dobson 2000, p. 92). Without a full understanding of the mechanisms by which the material at Traprain Law was accumulated it is difficult to assess if it reflects a positive connection (Hingley 1992b, pp. 39-40). By studying the wider distribution of Roman material culture and settlement evidence in the region, a more nuanced and fuller understanding to the relationship between the local communities and the Roman occupiers has emerged. This interaction is multivariate and complex in nature and cannot be seen as homogeneous over space or periods. This particular region does show indications of fairly developed relations between certain areas and the Roman military. Whether such interactions were undertaken by locals because of personal aspirations or are reflective of friendly policy on the part of the local Roman garrisons is a complex issue. It may also be possible that it reflects awareness amongst the locals of what occurred further to the south, when the Roman military campaigned against the Brigantes in the early 70sAD (Tacitus Agricola XVII). Yet whatever the reasons, the level of interaction in the area attests to the complex and often divergent impact of the Roman occupation of north Britain. Given both the long occupation (longer than many

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[79] Equally it could be seen as a desire to maximise the perceived connection between the inhabitants and Rome. In this regard it is amusing to recount Richards Feynman's observations about the South Seas islander's 'cargo cult'. "During the war they saw airplanes with lots of good materials, and they want the same thing to happen now. So they've arranged to make things like runways, to put fires along the sides of the runways, to make a wooden hut for a man to sit in, with two wooden pieces on his head to headphones and bars of bamboo sticking out like antennas -- he's the controller -- and they wait for the airplanes to land. They're doing everything right. The form is perfect. It looks exactly the way it looked before. But it doesn't work." (Feynman 1974).

other areas of central Scotland) of this area and the substantial impact on the local population, it no longer appears feasible to support an argument for a limited Roman influence in the north (contra Hanson 1997, p. 216).

8 Dumfries Case Study Area

8.1 Introduction

The third and final study area encompasses a large portion of present day Dumfriesshire north of the Solway Forth. While the region has a long history of study, a clear picture of Iron Age and Romano-British society remains elusive. Much of the discussion of this region during Roman occupation has focused on developing a chronology for the Roman forts. When the issue of native-Roman interaction is discussed, emphasis focuses on the Roman works at Burnswark, the issue of a Brigantian revolt and to what extent the area belonged to the tribal designation of Anavionenses. Both the idea of a siege at Burnswark and that of a Brigantian revolt have been down-played and questioned during the latter half of the 20th Century, yet the idea of a siege has recently found favour (Bruhn 2002; Campbell 2003; Maxwell 1998). However, the nature of local society and interaction with the Roman garrisons in this area is far more complex than what these limited examples can fully explore, as has been highlighted by recent discussions (see Gregory 2001b; Wilson 2003).

In applying the more recent line of enquiry explored above to the evidence from this region, a far more nuanced picture emerges which allows a more complex understanding of the Roman period indigenous population. From this emerges a more complete understanding of the Roman period as a whole. Interestingly, given the speculation on the tribal associations and their recruitment into the Roman army, there is relatively little Roman material uptake on local indigenous settlement. While this was originally thought to be the by-product of limited excavation in the region, the last two decades have seen a number of sites of this period excavated. However, there has been little increase in the amount of Roman material culture, that cannot be directly attributed to the Roman forts (see Wilson 2003 for a discussion). Conversely, the Roman fort of Birrens has produced a significant amount of 'native' material culture, adding to the complexity of addressing interaction in the area. The region produced evidence for a fractured, or rather piecemeal, political hierarchy with regard to settlement and excavation evidence. To what extent the Roman conquest factored into this is also further discussed. In light of the settlement and finds analyses conducted, combined with recent settlement excavation and the reinterpretation of Burnswark, it is argued that

the area represents a potential area of hostility and resistance to Roman occupation. Furthermore while not necessarily representing a Brigantian revolt,[80] the arguments for a hostile period (or at least military pressure) and destruction levels at Roman forts should be revisisted.

8.2 The Dumfries Study Area

The study area incorporates a 20km buffer around the site of Burnswark.[81] This includes most of Dumfries and some surrounding areas (see Figure 8-1 for the Dumfries study area in the larger region and Figure 8-2 for a close up view of the Dumfries study area). The northwest area of the region is primarily uplands, with the southern area dominated by a coastal plain. The area also contains a wide valley, connecting it with central Scotland, which presumably is the feature which facilitated the Roman advance north and leading to an increased interest in the area during the period.

8.2.1 Past Surveys

The Dumfries study area is in a unique position in terms of the fieldwork in southern Scotland. While there has been limited excavation that relates to this period, which has been primarily conducted on the Roman sites, the region has had a long history of archaeological survey. It has also benefited from a keen local interest. The Dumfriesshire and Galloway Natural History and Antiquarian Society, founded in 1862, has been a source of much of the local engagement and still continues to publish relevant local work in its *Transactions and Proceedings*. In addition to this local interest, archaeological understanding of the area has benefited from a series of governmental and academic surveys.

The first specific archaeological survey in the area was conducted by Alexander Curle in 1912-13, and was based extensively on the earlier Ordinance Survey of the area (RCAHMS 1920, 1997, pp. 5-8). Curle's survey was published in 1920 by the Royal Commission and forms the bedrock of later research (RCAHMS 1997, pp. 5-8). Yet it was not until the publication of George Jobey's studies of the earthworks in Eastern

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[80] Though this term should also be evaluated as it carries with it cultural associations and assumptions about such an event and can been seen as a product of the time in which it was forwarded as a theory, much like the term Mutiny used to describe the Indian *War of Independence of 1857*.

[81] Burnswark was chosen over Birrens to centre the area firmly within Dumfries, and exclude the distraction to the pertinent issues in this discussion which would have been caused by including Carlisle or the area south of the Solway, which has already been covered by Bob Bewley (1994).

Dumfriesshire in 1971 that any specific discussion of 'native' settlement distribution occurred. Jobey's (1971a) work in the area was an extension of his Northumberland settlement survey, highlighting many of the similarities with the settlement archaeology of northeast England and southeast Scotland. Its main concern was planning and classifying enclosure sites. The classification system he employed was loosely based on the extent to which the sites' enclosures and locations were considered defensive in nature. It was the first such systematic attempt to classify and compare settlement in the region. Jobey's (1971a) survey noted similarities in the upland area with neighbouring Peeblesshire. In addition to the planned survey, Jobey undertook a limited amount of excavation in the area in an attempt to identify Romano-British settlement (Jobey 1974a, 1974b, 1978a). Many of the initial observations of Jobey's survey have been reinforced over time, contributing greatly to the later Royal Commission surveys of the region (RCAHMS 1980, 1981, 1997, p. 8). The Royal Commission surveys of 1980 and 1981 were conducted in response to the alarming amount of forestation identified by Jobey (1971a), which led to the identification of further enclosed sites in the area (Jackson & Rescue (Trust) 1978; RCAHMS 1997) (see Figure 8-3 shows the impact of forestry on the discovery of enclosures and cord rig cultivation distribution).

The survey conducted for the publication of the RCAHMS volume on Eastern Dumfriesshire not only brought together these earlier sources, but also proposed a chronological synthesis for the area (RCAHMS 1997). In addition to the identification and classification of sites in the region, the volume focused on interpretation of settlement patterns and site hierarchy. It was during this period, partly the by-product of developer funded excavation associated with the A74(M), that this region saw a marked increase in the number of excavated sites, specifically the number of non-Roman sites, which had previously been largely ignored. This allowed a greater contextual understanding of the surveyed material to develop. Yet while this recent excavation contributed to the greater understanding of specific sites in the region, most syntheses of local society have relied primarily on survey data to provide an understanding of local society. The traditional survey in the area focussed primarily on upstanding physical remains, the remains. This is highly dependent on later land use thus have a more significant survival and discovery rate than in the upland unimproved areas which have not been subject to forestry (RCAHMS 1997, pp. 26-8). Aerial cropmark survey has rectified some of this imbalance in the lower elevation improved land (though this area is also affected by a host of factors relating to land use). Indeed, aerial archaeology has

played a significant role in surveying the Dumfries area from a remarkably early period (Cowley & Brophy 2001), as much of Crawford's (1939) discussion of aerial discoveries from Scotland focusses almost exclusively on Dumfriesshire. While the early aerial surveys targeted Roman military works, specifically the work of St Joseph (St Joseph 1951, 1955, 1958, 1961, 1965a, 1965b, 1965c, 1969, 1973, 1977, 1978) and Miller (Miller *et al.* 1952), Prehistoric settlements were also discovered in abundance, often leading to a more systematic survey practice (RCAHMS 1997, p. 8). In the southern area of the study region, the Solway plain, the aerial survey of Barri Jones (conducted during the mid 1970s (Higham *et al.* 2001, p. 3; Higham & Jones 1975, 1985))[82] while targeting primarily the Cumbrian side of the Solway Firth was to have a significant impact on discussion of the study area as it specifically focussed on prehistoric settlement and agricultural remains. It also led to the awareness that there were similarities between the regions on both sides of the Solway Forth (Higham & Jones 1985).

This rich resource of aerial photography has revolutionised the archaeological understanding of the region (Cowley & Brophy 2001) and facilitated a number of recent overviews of the Romano-British period. Gregory (2001b) suggests a model of transition in the archaeological landscape during the Roman period, which is based largely on cropmark evidence, and to a lesser extent both Halliday[83] (2002) and Wilson (2003) benefited from the greater understanding of settlement distribution than aerial surveys have afforded. Wilson (2003) not only discussed the settlement data from the area, but also surveyed all the available Roman and Iron Age finds in the region. This is incorporated into a constructive study of 'native' and 'Roman' interaction in the area which additionally compares the Strathclyde region, where an earlier survey was conducted (Wilson 1989, 1995, 1997, 1999, 2001, 2003). Not only does Dumfriesshire have a long and detailed history of survey, it is in many ways one of the most surveyed regions in Scotland. Unfortunately, due to the lack of early excavation on non-Roman sites, little understanding of this has remained until recent years. While the region has benefited from recent studies, the full implications derived from the Dumfries

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[82] Highman and Jones' 1985 volume the *Carvetii* is also highly significant in relation to the overall study of native Roman interaction in the north, as it is arguably one of the first if not the only complete volume that has addressed a region of northern Britain in an holistic manner, incorporating discussions of Roman occupation with detailed accounts of the local population in a concise and meaningful way.

[83] Though in truth this work utilises a recent reassessment of an early field survey and owes much to antiquarian tradition, it did exploit advances made by aerial survey in the discussion of settlement distribution.

archaeological remains have yet to make a significant impact into the overall understanding of the Roman north.

8.3 Iron Age and Roman Period Settlement in Dumfries

Before a well reasoned discussion of Roman impact on the area can occur it is important to review the prehistoric settlement evidence for Dumfries. The chronology of the prehistoric settlement for the region has been divided along the traditional lines of Early, Middle, Late and Roman Iron Age. Significant sites from the study area (see Figure 8-4) and chronological trends are discussedmore fully as they relate to the specific trends in the settlement evidence.

8.3.1 Late Bronze Age and Early Iron Age Settlement

The Dumfries region in Late Bronze Age period was dominated by unenclosed, often isolated, hut circles (RCAHMS 1997, pp. 100-17). While the nature of house construction seems to have changed in the early Iron Age, this period appears to be represented by a range of unenclosed settlement. Unfortunately the known distribution of these sites is relatively limited yet they appear to coincide with the distribution of cord-rig cultivation (Gregory 2001b, pp. 36-7; RCAHMS 1997, pp. 100-17). This is most likely a by-product of both survival rates for such features, being above the elevation of modern agricultural land, and the intense survey in these areas due to the visibility of upstanding remains (RCAHMS 1997, pp. 118-9). Without extensive excavation it is not possible to specifically state the period of construction or to phase the level of occupation, but, based on similarities with round house construction found at sites which have been excavated elsewhere, they could arguably originate in the Early Iron Age (RCAHMS 1997, p. 118). Unenclosed settlement also constitute phases of occupation on some palisade and enclosed settlement sites, unfortunately their chronology is far from fixed in the region (Gregory 2001b, pp. 36-7).

Palisade enclosures are a relatively early settlement feature in the area having their origins in the Late Bronze Age/Early Iron Age. They have been identified as the earliest phase of occupation at Burnswark, predating the enclosure banks (Jobey 1978a, pp. 62-3,96). While there are other examples of early palisade enclosures (RCAHMS 1997), they cannot be seen as a set category (examples of differing types include single, double,

circular and rectilinear palisades), nor do they fit into a fixed and narrow chronology in the region as they have a considerable period of currency. Not only do palisades predate some enclosures, but they also post date the earthen bank phases as well (RCAHMS 1997, pp. 121-6,51-54). As the example of Gibb's Hill demonstrates, that produced over five distinct phases of palisade construction intermixed with unenclosed occupation, highlights the longevity of such settlements (RCAHMS 1997, pp. 122-3). Palisades can be seen as a continuing settlement feature throughout the Iron Age and Roman period (Gregory 1998; Gregory 2001a, 2001b; Jobey 1985; Rideout 1996) and while they are only identified on a number of sites, they may be a more common phenomenon which has been obscured by later occupation phases.

There are a number of enclosed sites which may have been occupied during this period. The ramparts at Burnswark Hill produced radiocarbon dates that place their construction some time in the Late Bronze or Early Iron Age (the latter being more likely) (Bruhn 2002; Gregory 2001b; Jobey 1978a). This initial phase of construction places it on a similar timeframe to Traprain Law (Hill 1987; Jobey 1976)) and Eildon Hill North (Owen 1992; Rideout *et al.* 1992) and, as it has been speculated that the occupation levels may have been seasonal during this period (Bruhn 2002; Gregory 2001b; RCAHMS 1997, p. 130). In addition to this, the smaller circular enclosures of Long Knowe (Mercer 1981) and McNaughton's fort (Scott-Elliot *et al.* 1966) produced evidence for occupation during this same period, although this later evidence more likely relates to the accompanying palisade at the site. While other circular enclosures probably belong to this period, it is during the Middle Iron Age that enclosed settlement becomes a far more common occurrence in the area.

8.3.2 Crannogs

As it pertains to the discussion of Early Iron Age settlement, a brief look at the topic of crannogs in the southwest of Scotland will be undertaken. While crannogs have a strong historical association with this region, due largely to the work of Munro (Dixon 2004, pp. 44-7; Morrison 1985, pp. 12,30), they have largely been omitted from discussions of Early Iron Age society. This is probably due to the fact that they were often attributed to the Roman period in the southwest after the Milton Loch excavation (Piggott 1953a). Those further north were considered Medieval in date (Dixon 2004, pp. 52-4,66; Morrison 1985, p. 12). A recent reassessment of crannogs has concluded that not only were they far more common than previously thought, but their distribution was also

wider (Morrison 1985). The dating of these sites have been revolutionised by the introduction of radiocarbon dating. An ard from Milton Loch produced a date from the Early Iron Age but it was dismissed in favour of the relative date provided by a Roman period bronze dress-fastener (Dixon 2004, p. 53; Morrison 1985, pp. 6-8). The site has now been reassessed with dates taken from timbers at the site, which match those from the ard, indicating that it was clearly constructed in the Early Iron Age and subsequently reoccupied in the Roman period (Dixon 2004, pp. 52-4). In a recent survey of Milton Loch, not only did the second crannog produce comparable, or slightly later dates, but a third, newly discovered crannog, was dated to the late Roman/early Medieval period (Dixon 2004, pp. 85-6). This indicates that Milton Loch had an extremely long period of crannog occupation as well as varying periods of construction. Other sites surveyed suggest that the crannog settlement tradition is one that began in the Late Bronze Age and continued through the late Medieval, and in some cases, into the post-Medieval period (Dixon 2004).

Crannogs, aside from their unusual locations, seem from excavated evidence to have functioned in much the same manner as enclosed settlements. Their finds suggest a largely agricultural economy and those occupied during the Roman period, while sparse in finds, seem to have had at least limited access to Roman goods (Gregory 2001b, p. 37; Morrison 1985). Can their location in lochs be seen solely in terms of boundary and separation, being primarily defensive in nature? Surely the function and reason for occupying these sites would have differed by location and period, and given that some of them were constructed in the Iron Age, a ritual or symbolic connection with the water should not be discounted.[84] The substantial size of the round house at such sites like Milton Loch may be indicative of a unique purpose or status (see for example Hingley(1992b) for a discussion of substantial round houses). Such observations should also be considered in regard to the crannog of Castle Loch, Lochmaben especially if the argument is accepted that Lochmaben is the *Locus Maponi* of the Ravenna Cosmography (Birley 2001; Radford 1953; Rivet & Smith 1979).

8.3.3 Middle Iron Age

While this period is traditionally associated with hillforts and enclosed settlement in southern Scotland, the evidence from the Dumfries region is not as straightforward. A

[84] The importance of water contexts in the Iron Age has long been noted, see for example: (Bradley 1998a; Field & Parker Pearson 2003; Fitzpatrick 1984).

number the excavated enclosures that date to this period, namely the circular enclosure at Hayknowes farm (Gregory 2001a), Long Knowe (Mercer 1981), and the earliest phase of Castle O'er are speculated to have been constructed during this period (RCAHMS 1997), However, most of the excavated enclosed sites in the region appears to date to the later Iron Age or Roman Iron Age. There appears to have been a trend towards unenclosed settlement during this period. Woodend's earliest phase, which appears to have been unenclosed, was occupied some time during the Middle or Late Iron Age (Banks 2000). The settlement at Carronbridge overlies an earlier unenclosed phase most likely dating to this period (Johnston 1994). It has also been recently argued that the unenclosed phase at Boonies (Jobey 1974a) should actually be seen as an earlier feature dating to about this same time (RCAHMS 1997, pp. 146-7). If such arguments are accepted then the settlement pattern during the Middle Iron Age for the region consists of mostly unenclosed settlement, with occupation at occurring at certain hillforts and the occasional circular and palisaded enclosure.

8.3.4 The Late Iron Age

Excavation conducted in the Dumfries region has been most revealing about the Late Iron Age and early Roman period. A number of sites have produced date ranges that show they were constructed or occupied around the turn of the millennium. However, there seems to be no consistent morphological form of enclosure or settlement preferred. Circular enclosures dating from this period include the single ditched enclosure at Albie Hill (Strachan 1999), the double ditched site of Hayknowes farm (Gregory 2001a), the scooped circular enclosure at Uppercleuch[85] (Terry 1993), Castle O'er's secondary enclosed area (RCAHMS 1997), and the earliest enclosed double banked site at Woodend (although the latter could equally be Roman) (Banks 2000). Just to the north of the study area, the circular enclosure at Candyburn is of Late Iron Age date (Lane 1986). Most of these sites have produced evidence for a mixed economy although Uppercleuch and Castle O'er was largely pastoralist; and at the sites of Woodend and Albie Hill agriculture played a larger role. While most of the evidence for occupation at Burnwark is from the Roman period (Jobey 1978a), it may have been reoccupied during this period. Both the sites of Hayknowes Farm (the circular enclosure) (Gregory 2001a) and Albie Hill (Strachan 1999) produced sherds of native pottery which is unusual for

[85] Despite its circular form, excavation revealed a right angle on the northeast side. This highlights the often irregular nature of enclosures and questioning the strict distinction between rectilinear and circular. It is possible that the alignment of the corner related to an earlier linear feature (Terry 1993).

excavated sites in the region. Palisade sites, such as Gibb's Hill, [86] were also in use at thhis time, in light of the sequence present there, as well as the possible unenclosed phases at Bonnies (RCAHMS 1997) and Woodend (Banks 2000). There is also some evidence that the rectilinear enclosures were introduced during this period, as Carronbridge (Johnston 1994), Hayknowes Farm (the rectilinear enclosure) (Gregory 2001a) and Rispain Camp (Haggarty & Haggarty 1983) all produced evidence for occupation in the Late Iron Age, although the dating was very late and given that they all produced material from the Roman period, they could just as easily have been constructed then.

The Late Roman period produces evidence for mixed morphological forms of settlement with a tendency towards enclosure in the later period. It is been argued that the area saw an increase of settlement hierarchy based on the assumption that these different forms of settlement related to political status (Gregory 2001b, p. 38), and that this settlement hierarchy was dominated by the hillfort at Burnswark (Wilson 2003). While such a model may be applicable to the region at this time, there are substantial problems with it. First there is no conclusive evidence that Burnswark was occupied during this period as most of the occupation evidence indicates that the site was primarily Roman Iron Age (Jobey 1978a). Second, there is no clear evidence from any of the sites excavated to indicate a form of settlement hierarchy existed between different settlement types. Such arguments would have to be based primarily on the assumption that morphological features equate to different levels of status on their physical merits. These indicators, though, could relate to a number of social aspects or even functional causes which may have had little to do with hierarchy. The most conclusive evidence for settlement hierarchy occurs during the Roman period and is far more localised in nature, as seen in the Castle O'er region.

8.3.5 The Roman Iron Age

It is perhaps ironic, given Jobey's (Jobey 1971a, p. 79) early claim that there was little visible evidence for settlement during the Roman Iron Age in Dumfriesshire, that this period is now one of the best represented through excavation in the area.[87] It was this earlier perception which prompted both his survey of settlement in the region (Jobey

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[86] The palisades overlie the earlier circular enclosure as Gibb's Hill.

[87] Yet not surprising given that it was Jobey's work which in many ways influenced later study in the region setting what could be seen as an agenda to explore Romano-British settlement. Also given that most of the datable material found in the area is often Romano-British, is it any wonder that occupation during this period is often the area of focus.

1971a, p. 79) and his later excavations at both Boonies (Jobey 1974a) and Burnswark (Jobey 1978a). The origin of his assumption was the paucity of stone built enclosures and roundhouses with stone foundations dating to the Roman Iron Age period in the Dumfries area (Jobey 1971a). Jobey did not argue that this absence indicated a lack of settlement during this period, but rather that a different type of site was current (Jobey 1971a, pp. 79-80). Smaller scooped enclosures known locally as 'Birrens' were suggested as a possible alternative; not only were they widespread, but their internal layout bore similarities with the Romano-British enclosures to the east (Jobey 1971a). The excavation of Boonies supported this hypothesis, producing evidence for Roman Iron Age occupation (Jobey 1974a). It was subsequently assumed that many of these smaller enclosed, but not 'defensive,' settlements were dated to this period (RCAHMS 1997). The excavation at Uppercleugh (Terry 1993) appears to further support this theory as it contained evidence of Romano-British occupation, although it is more likely that it was constructed earlier. Arguably these categories did form a significant portion of Romano-British settlement. However, these types of settlement could conceivably belong to the Iron Age or even the early Medieval period and caution should be exercised before broad generalisations are made and all sites of this type are classified as Romano-British, given the diverse and often complex history of enclosures in the area.

Rectilinear enclosures which date from the Late Iron Age were also an integral aspect of land settlement in the Roman Iron Age. While not as common on the east coast (Johnston 1994), certain lowland areas contain numerous examples. Of the rectilinear enclosures excavated in the south west of Scotland, three have produced reliable dating evidence which places occupation firmly in the Roman Iron Age: Hayknowes Farm (Gregory 2001a), Carronbridge (Johnston 1994) and Rispain Camp (Haggarty & Haggarty 1983). The other three excavated rectilinear enclosures at Birrens Hill (RCAHMS 1920), Blacketlees (Truckell 1958) and Craigmuie (Clarke 1953) produced few or no finds and were excavated before the advent of carbon 14 dating. There is also little indication that, during this period, earlier sites were out of use, as has been shown at Candyburn, Hayknowes (circular) (Gregory 2001a) and Castle O'er (Halliday 2002). Indeed, settlement seems to have intensified during this period with many of the sites witnessing the construction of new enclosures or the extension of existing ones (especially Castle O'er, Woodend, Carronbridge, Hayknowes Farm).

Despite the fact that settlement of this period appears to have had a variety of morphological types, there does seem to be a trend toward enclosure at the end of the late Iron Age and in the early Roman Iron Age. It is strange, given the reoccupation of Burnswark hill fort during this period, as there was no remodelling of the denudated defences. This might indicate a specific purpose for this site at the time, an open settlement which based its function on the earlier activity of the site or even some form of communal gathering place. Though the later Roman activity in the area may have played some role in how the site was accessed and occupied, the trend toward enclosure was not the only noticeable one during this period. Intensification of both settlement and agricultural production also occurred as there is strong evidence to suggest this at Castle O'er (see section 8.3.6). Two of the sites, Boonies (Jobey 1974a) and Woodend (Banks 2000), show internal development throughout the early Roman period where there was a shift from fewer large roundhouses to more numerous smaller ones. Whether this represents a demographic change as argued for Woodend (Banks 2000), or a shift to a more defined and separated arrangement of social space is hard to assess given the limited number of finds which could be used to model social space.

Regardless, this change is undoubtedly of social significance. A similar situation could have occurred at Carronbridge (Johnston 1994) during its later stages, which would reflect rectilinear settlement in the east coast, where there was a reduction in the number of houses and, contemporaneously, the construction of a small enclosure ditch. Carronbridge differs as the later enclosure is larger than the earlier one (Johnston 1994). As in the late Iron Age, the economy seems to be fairly mixed, with some sites specialising in stock rearing while others produce more evidence for agriculture. There does seem to be evidence of intensification during the period at Castle O'er (see section 8.3.6), Woodend (Banks 2000)(see section 8.3.7) and Rispan camp (Haggarty & Haggarty 1983). With regards to industrial production, the evidence for the region is rather scarce, consisting of three main sites: Over Rig (Halliday 2002; RCAHMS 1997), which produced evidence for metal and wood working, Woodend which contained unfinished querns (see section 8.3.7) and Albie Hill which produced a limited amount of slag which might indicate some form of metalworking (Strachan 1999).

Visibility of settlement also appears to have been a factor during this period as many of the sites were placed in locations which created a significant visual impact. It is possible that this was a factor in the increased size of enclosures, as it was noted that the

enclosures at Woodend would have been largely useless as drainage ditches or defensive features, but would have been highly visible and impressive, conceivably created for this reason and an impact on visitors in addition to delineating space (Banks 2000). This theory would support a more general current thinking on Iron Age enclosure boundaries (Bowden and McOmish 1987;1989, Collis 1996, Hill 1996, Hingley 1990).

Toward the end of the Roman period, there seems to have been a trend toward unenclosed settlement at some sites (Castle O'er, possibly Boonies (Jobey 1974a), Woodend (Banks 2000)). However, this occurs fairly late, and as such should not be compared to the chronology in south east Scotland. There also seems to be a trend to reoccupy earlier enclosed settlements and abandoned Roman features (RCAHMS 1997). In general there is a broad range of settlement types occurring during the Roman Iron Age, but the introduction of rectilinear sites and the tendency toward enclosure are clearly significant. In order to understand more comprehensively the nature of occupation in the area, a brief discussion of two of these settlements is necessary.

8.3.6 Castle O'er and Over Rig Enclosures

The enclosed sites of Castle O'er and Over Rig present a unique opportunity to discuss a number of themes of the Roman Iron Age in south west Scotland. These include the relationship between settlement and the wider landscape, Roman Iron Age economy as well as industrial activity, social hierarchy and ritual activity. The landscape around Castle O'er is significant given the survival of a large network of linear features. While the dating of such features is always problematic, there is structural evidence that supports the idea that they were most likely contemporary with the occupation of the Castle O'er hillfort (Halliday 2002; RCAHMS 1997, pp. 78-85). Castle O'er has produced dating evidence to place its initial phase of construction in the Iron Age; with occupation and construction continuing into the Roman Iron Age period. It was during this latter period that the large annex was constructed (RCAHMS 1997). The fort itself lies at the centre of a large network of linear banks and features presenting an extremely complex landscape which was divided up and spatially defined (see Figure 8-5). The complex nature of this landscape is still visible and was identified early by Roy (1793) and later mapped by Bell (RCAHMS 1997, p. 78).

The full significance of the region has only been recently realised through extensive survey and excavation (Halliday 2002; Mercer 1985; RCAHMS 1997, pp. 78-86).

Smaller enclosed settlements were incorporated into this larger landscape and, based on similarities with Boonies, they could arguably date to the Iron Age and Roman period (Halliday 2002). They seemed to have formed a discrete local community centred on Castle O'er (Halliday 2002; RCAHMS 1997). It has also been speculated that the linear features served not only as a complex form of land division, but also played a key role in the local economy, which was based largely on pastoralism (Halliday 2002). The annex of Castle O'er, which dates to the first century AD, is also thought to have served as a corral. This discrete group of settlements and local social units might also be replicated at the nearby site of Baliehill which has a similar development (though undated) of fort design (RCAHMS 1997). Environmental evidence indicates that this intensive pastoral economy was largely unchanged throughout the Roman period and only shows signs of change at the end of the period (Halliday 2002). If the site hierarchy was dependent on control of the livestock, then the annex at Castle O'er may have played a centralised role in the region. Animal husbandry is not the only economic evidence from the area. The site of Over Rig located within the defined landscape next to the river White Esk, produced evidence for industrial activity, especially metal working (large numbers of whetstones and slag were found at the site.) This is of great interest given the lack of evidence in the Dumfries area for industrial activity. Only one other site has produced evidence of metalworking in the area. The enclosure of Albia Hill contained an iron sickle blade and slag although the quantity is slight (Strachan 1999). Woodend also produced evidence of quern production, but no metalworking (Banks 2000).

Dating for the Over Rig enclosure indicates that it was utilised during the first century AD and was most likely contemporary with Castle O'er. While Over Rig produced some occupation evidence, it does not seem to have been chiefly a settlement. Several factors indicate that it may have served primarily as a production site and that it had a considerable ritual element. The site is enclosed by three circular ditches and a large rectangular boundary (see Figure 8-5). Today, the interior is heavily waterlogged. It also seems to have acted as a sort of amphitheatre (Mercer 1985); the activities which occurred inside the site would have been highly visible in the surrounding valley. Metalworking could have been a ritualised activity which needed to be separated from daily life, yet, at the same time, was an activity which was largely on display to the local inhabitants and might have conferred specific status on its practitioners. The ritualised nature of iron working in the Iron Age has been discussed (Hingley 1997) (see Heald

forthcoming for a discussion of northern Scottish contexts), yet Over Rig's highly visible nature adds a new dimension to this role. Given the proximity of the site to Castle O'er, Halliday has argued that it served as a ritual centre for the hillfort (Halliday 2002). While the area around Castle O'er seems to have been a fairly complex and hierarchical social community during the Roman Iron Age, there is little evidence of interaction between the site and the Roman garrisons. This may be explained by its spatial isolation from both Roman sites and infrastructure, but there are numerous other sites throughout Scotland which are similarly removed from Roman forts and still produce relatively large quantities of Roman goods. Romano-British glass bangles are present at Over Rig (Halliday 2002; Mercer 1985), but could have easily been obtained through exchange with other Iron Age communities. It has been speculated the move to regimented pastoral system for this site was influenced, if not encouraged by the local Roman garrisons and that it would have provided them with a supply of cattle (Wilson 2003, pp. 109-11). Given the lack of Roman goods at the site, combined with the general lack of animal bones which prevent statistically study of the finds from these sites, evidence for such practice in the area is thin and the argument is largely unsupportable; even if the livestock were acquired through taxation there would be some evidence of material going the other way. While the local social system may have been strengthened and formalised in response to Roman occupation, the area seems to have been largely disconnected from that was occurring nearer the Roman infrastructure, which seems both to have ignored this region and been largely ignored by it.

8.3.7 Woodend Farm Enclosure

The multi-vallate enclosure located at Woodend Farm was excavated in 1994 and 1997 by GUARD in connection with the M6 motorway development (Banks 2000). The site is of great interest given both its general lack of finds and the fact that recent excavation techniques allowed a fairly secure dating sequence in the absence of diagnostic finds. The site was first occupied in the late pre-Roman Iron Age and continued in occupation throughout the Roman period. While an understanding of the full nature of the early period is partial, it does appear that the earliest phase of settlement was unenclosed as the enclosure cut earlier occupation levels. This unenclosed phase was followed by a fairly large enclosed settlement with a complex system of three banks and one ditch, which were constructed not long before the Agricolan advance (Banks 2000, p. 248). The banks were not constructed from the ditch fill but rather from material brought to

the site, which highlights the substantial amount of effort their construction would have required (Banks 2000, p. 248).

While the excavation unearthed no Roman material culture, it did produce a number of coarse stone tools which indicate a mixed economy; both agriculture and animal husbandry being practiced. Phosphate and soil analysis of the site has allowed a greater understanding of both midden practices on the site, as well as the identification of functional differences between areas of the settlement, specifically the identification of the building S13 as a stock pen (Banks 2000, pp. 252-7) (see Figure 8-6). The roundhouses excavated are fairly typical of the period and show multiple phases of occupation and construction which attest to the length of occupation. While the economic practices of the site are fairly typical of the period and area, the lack of Roman material culture is noteworthy given the sites close proximity to both the Roman road and the Roman fort at Milton.

This lack of Roman finds, given the fairly secure absolute dating of the site, raise questions about both the status of the site and the relationship of the residents with the Roman occupiers. While the multi-vallate nature of the enclosure is taken by (Banks 2000) to indicate a fairly high status site, the evidence used to support this claim is based primarily on the back projection of early Medieval Irish textual sources related to the scale of the site. As he freely admits, the view that Woodend was a high status site clashes with the lack of Roman material culture, the presence of which is often seen to indicate high status during the Roman Iron Age. Rather than question the assumption that Roman material culture is always indicative of high status, two possible theories were proposed by (Banks 2000, p. 277). The first considers post depositional factors and argues that such materials may have been lost during the heavy ploughing of the site. This seems an unsatisfactory explanation as surely some material would have survived (glass seems to endure such post depositional practices remarkably well). The second theory is that the site, while initially high status during the pre-Roman period, fell out of favour during the Roman occupation and suffered a decline in status throughout this period. Given that the densest phase of occupation occurred during this period, it is further argued that this multiple occupancy contributed to its decline in social standing and may have been encouraged by the Romans (Banks 2000, p. 277). While such a model is pertinent in regard to the sites societal standing, in that its status could have risen and fallen over time, the model does not adequetley explain the lack of Roman

material at that such a densely populated site. Which would be strange given its suggested relationship to the close Roman fort that being the proposed encouragement from the Roman garrison, which should have surely increased the likelihood of Roman material finding its way to the site.

There are three alternative possibilities to explain both the perceived status of the enclosure and the lack of Roman material. The first is to consider the depositional practices of the occupants themselves. While middens are attested for domestic refuse on the site it is possible that items perceived as exotic could have had specific depositional requirements possibly accounting for the lack of such material on site. It is also important to remember that material deposition in the past is associated with the activities of living agents, and recorded specific events, from casual loss to purposeful disposal. The visibility of large amounts material can often relate to unique events whose specific circumstances dictate the possibility of present retrieval. A useful example of this is the excavated enclosed site of Apperley Dene in Northumbria, the phase two occupation of the site seemed to end abruptly some time after AD 370, with the ditches being filled in a single act with the vast majority of the Roman pottery found at the site coming from the ditch infill (Greene 1978). If the deposition of this pottery had not occurred in conjunction with the filling of the ditches the amount of Roman pottery recovered on *this site would* have been substantially different.[88] The discussion of Fairy Knowe in Chapter 6 is also similar in that a significant event *sealed the deposit* there which led to the large amount of finds evidence from the site.

While consideration should be given to depositional practices, as well as post depositional factors, it is largely an unsatisfactory explanation for the lack of Roman material culture. First, such an idea focuses on negative information and second, if such material was in relative abundance, casual losses should account for at least a small portion of the material found. The second possibility (if it is accepted that Roman material culture is indicative of high status Romano-British sites) is the assumption that multi-vallate enclosures are high status is incorrect, and could represent other social or economic factors. While this is a possibility which needs further exploration (see Chapter 7), it is far more likely that there was no unified and homogenised status

[88] While it is interesting to speculate on the nature of such deposition, whether the result of a ritual activity, a useful functional coincidence or the destruction of the site, it matters little to the overall point that such material is often dependent not only on post depositional factors but also depositional practices.

hierarchy and multiple factors could have *contributed to settlement status.*[89] In other words there is no specific reason why Roman material culture needs to be indicative of high status sites during the Roman period in the area. The local residents of Woodend might not have had access to Roman material or may have specifically not acquired it, because they choose not to. This last possibility is potentially strengthened when the artefacts recovered from the site are taken into account.

The site produced a number of quern stones which strengthens the evidence for agricultural practice, and two of the querns were unfinished and in a stage of production pointing to their creation on site (Taylor & Simpson 2000, pp. 257-63). Quern 254AA, which appears to have been unused, is a type of beehive quern normally associated with Broch settlement in the northwest of Scotland (Taylor & Simpson 2000, p. 258). On one level this may attest to the fact that the Iron Age community was far from isolated and settlement would have had far reaching social networks, though in light of the lack of Roman finds and the construction of Broch style architecture in southern Scotland, the quern may be indicative of more than just casual trading or social connection. While it is unlikely that the presence of such material would indicate a population movement, it may represent a desire on the part of the occupants of Woodend to associate themselves with those outside the influence of Rome,[90] a possible active political statement which when combined with the lack of Roman material culture created a strong presentation of local resistance to Roman occupation.

8.3.8 Settlement Distribution

Although the chronology of the settlement types in the area has been discussed in depth, little mention so far has been made about overall distribution patterns in the area. Circular enclosures in the Dumfries study area broadly cover the entire region and while they seem to be more prevalent in the upland areas, this could be related to survival rates (as discussed earlier), yet given the extensive amount of survey, it probably also reflects an actual trend (see Figure 8-7). While there seems to be no overall tendency for these sites to cluster (see Appendix V) as they often seem to occur in river valleys, there are a number of discrete social units especially in the Esk river valley as has been highlighted with Castle O'er. Also many of the sites are paired which may indicate

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[89] Mattingly's concept of discrepant experiences is useful in considering the lack of uniformity in the region as well as the general lack of uptake in Roman material (Mattingly 1997; 2004; 2006).
[90] This is in some ways possibly similar to the adoption of broch architecture discussed in chapter 6.

extended family units. The dense settlement evidence corresponds to the pollen evidence for the period (Gregory 2001b; Tipping 1997).

Rectilinear settlements are found primarily on the coastal plain though there are a number in the northern river valley. While they seem to cluster in discrete social groups, the clustering is often fairly loose though there are examples of two sites in conjunction to another (see Figure 8-8) as at Carronbridge (Johnston 1994) (see Figure 8-9). This loose clustering may be a by-product of the economy if these sites were largely agricultural, or it could represent a hierarchical arrangement. The distributions of rectilinear sites and circular sites seem to be largely mutually exclusive with little overlap in areas of occupation. The area is also notable in its general lack of open settlement which can be attributed to this period, though there are a number of such settlements associated with cord rig in the uplands (RCAHMS 1997, p. 118). What all the settlement evidence does indicate is that the landscape was intensively settled during the Roman period.

This difference between the density of circular enclosures in the upland region (see Appendix Figure 35) and the lack of a similar density in regard to the rectilinear enclosures (see Appendix Figure 36), is possibly and indicator of two distinct trends, as mentioned before. The first is a difference in the possible agricultural practices of the rectilinear settlements; the second is also tied into this but relates more to the temporal period of rectilinear enclosure. If the rectilinear settlement represent the construction on new settlements in the late Iron Age much of this upland area would have been less economically viable for new settlement during this period, highlighting an early retreat or reduction in the upland areas.

8.3.9 Discussion of Excavated Iron Age Settlement Evidence

There are a number of observations that can be drawn from the settlement information of the Dumfries area. The region's excavated sites show little comparison with the Hownam model, which is of little surprise given the critiques of the model which have recently occurred (Armit 1999b; Harding 2001). What is more surprising is that settlement chronology bears little resemblance to the models forwarded for the south east of Scotland (Banks 2000; Harding 1982; Hill 1982a). While there are a variety of settlement types occupied at the same time, unlike the south east which shows a trend

toward unenclosed settlement during the Roman period, the south west shows a clear shift towards enclosure of settlement. On sites already enclosed, there is evidence for further development of the enclosures. In this region, there is an increased need to define space (both physically and symbolically); this could represent increased insecurity on the part of the local inhabitants. If the rectilinear enclosures were acting in some elite role in the lowland area, combined with upland sites like Castle O'er there is evidence for an increased hierarchy during this period. What role Burnswark may have played in this is complicated given the sequence of events at the site is unknown. While the Dumfries area has similarities with other regions in the north of Britain during the Roman Iron Age, there are also many features which point to significant differences.

8.4 Roman Chronological Framework

The Roman occupation of Dumfries has received substantial attention over the years (MacDonald 1923; Miller *et al.* 1952; Wilson 1989, 1995, 1997, 1999, 2001, 2003). While it is not possible for this thesis present any significant debate, a brief review of the chronology of the region will be covered. This will set the backdrop and construct a framework for the discussion of how this Roman infrastructure may have impacted the local population. For a more in-depth discussion of this evidence, see RCAHMS (1997, pp. 168-74) and (Wilson 2003, pp. 114-22).

8.4.1 Early Roman Occupation

Roman incursion into the region is now firmly believed to have occurred during the conquest of the Brigantes under Cerialis during the early 70s AD. This is supported by the presence of a fort from this period at Carlisle, while numerous camps and forts in Dumfries have been suggested to date from this period: Burnswark south camp, Broomholm, Bankfoot, Dalswinton and Milton (Breeze 1996; Wilson 2003). Yet none of these sites have produced conclusive evidence for occupation during this period.[91] Campaigning in the region is assumed, given the speed with which Agricola consolidated the area in his advance north (RCAHMS 1997; Wilson 2003). It was during the Agricolan campaign that the area effectively came under Roman control. Flavian occupation evidence has been found at Birrens (Robertson 1975a) and suggested for Broomholm, Milton Bankhead, Dalswinton and Ladywood (Wilson 2003).

[91] With the possible exception of Burnswark.

However the region was abandoned in the Trajanic period probably as the result of internal reasons in the Empire (Breeze & Dobson 2000; Wilson 2003).

8.4.2 The Second Occupation

During the Hadrianic period, Birrens was occupied as an outpost fort (Robertson 1975a) and Broomholm may have served a similar function (Wilson 2003). The next full occupation of the region occurred during the Antonine period when the Forth-Clyde wall was constructed and garrisoned and the forts of Ladywood and Birrens were occupied (Robertson 1975a). The Antonine occupation of Scotland is problematic given the debate over the specific dating of occupation and whether or not there were two phases (Hodgson 1995). However, this larger debate on Antonine phasing has little impact on the Dumfries region as there is a secondary occupation at Birrens where the early Antonine garrison *I Nervana Germanorum* was replaced in AD 158 by the *Cohors II Tungrorum* (RCAHMS 1997, p. 173). Both these garrisons contained a cavalry element, which could attest to their function in the region, and were ethnically derived from Germania and what is now Belgium. By the end of the Antonine period, Birrens is the only fort in the region known to have been occupied. When Birrens was finally abandoned is a matter of debate, Robertson suggests this occurred some time after AD 180, but Mann (1988) has argued for a later date around AD 192.

8.4.3 The Post-Antonine Period

While a post Antonine occupation has been suggested for Birrens (Birley 2001; Birley 1938) little physical evidence supports, especially since the re-dating of the pottery from the site shows no post-Antonine types (Wilson 2003, p. 26) (Colin Wallace *pers comm.*). (Wilson 2003) suggests the possibility of multiple campaigns in the region during the post-Antonine period, but aside from the Severan camp at Kirkpatrick Fleming,[92] without archaeological evidence such an interpretation remains largely speculative. Dumfries was occupied for a considerable period during the second century, however, and this must have had an impact on the local population.

8.4.4 *Blatobulguium:* What's in a Name?

The Roman Fort of Birrens or *Blatobulguium* as identified from the *Antonine Itinerary* has long been of interest given the large number of inscriptions from the site. Speculation over the name has focused mostly on reasons internal to the fort itself. The

[92] The identification/ chronology is based on the size and morphology of the camp and as such is questionable given the lack of any other features in the region from the period.

often cited meaning of the name is 'The Flour Sack' which is seen as a nickname and is argued to derive from the fact that Birrens had three large granaries rather than the usual *two (Jackson 1975;* Rivet & Smith 1979). Birley (2001, p. 18) has questioned this interpretation, arguing that the name relates to Burnswark Hill, which he argues could potentially look like a flour sack. He points to the high visibility of Burnswark from Birrens as support for this. That the name of the fort points to a local prominent feature would indeed make sense given the tendency of Roman forts to be named after symbolic features, take for example the Roman name for Newstead, *Trimontium,* most likely named after the Eildon Hills. The argument is strengthened even further if the alternative translation for *Blatobulguium* is considered, that being 'The Flowery Hillock' (Jackson 1975). Indeed given Birrens physical setting, it most likely played a substantial role in monitoring local activity at Burnswark which may have been the reason for its specific placement.

8.5 Roman-Native Material Culture

The lack of Roman material culture has been much remarked upon in this area (Wilson 2003). While this was once felt to relate to a lack of excavation, it has become clear over the last decade that it may reflect a real dearth of such material. While few individual sites in the region have produced large amounts of Roman material, a small number have produced limited quantities, highlighting that the material was available; in fact, hoards found in the area attest that the material was in circulation, but whether, it was limited to a specific group or class, is a more pressing question. Roman pottery seems to be scarce in its distribution, but this may reflect a lack of local interest in pottery as only two sites produced small amounts of local 'native' ware (Albie Hill, Hayknowes Farm). Sites which contained secure deposits of Roman pottery include Burnswark (Samian, coarseware) (Jobey 1978a) and Boonies (coarseware) (Jobey 1974a). Brooches and Romano-British glass ware are slightly more numerous but coins are all but absent from non-Roman sites, the only securely recovered example coming from Burnswark (Jobey 1978a).[93] It has been argued, given the lack of evidence for production on Roman Iron Age sites that Romano-British material was produced at the Roman *vici* or annexes attached to forts (MacGregor 1976; Wilson 2003). While this may have been the case, given the use of Roman material in the construction of these

[93] One was also discovered in a rabbit warren at the native farmstead of Thornhill (Wilson 2003, p. 112).

objects (see Chapter 5), native production for some of these goods should not be ruled out (see Hunter 2001).

(Wilson 2003, p. 113) explicitly states that, while production would have occurred at these sites, the craftsmen would have been native. The assumption behind the statement, that civilian *vici* in the north would have been populated primarily by locals is questionable and should be treated cautiously (see Chapter 5). Whatever the source of this material, it is also telling that very little of it has been found in Dumfries and it may reflect either local deposition practices or even different localised economic practices. While this lack of material culture could relate to "indifference or hostility to Rome" (Wilson 2003, p. 113), there are other possibilities which could account for it and the information needs to be seen within the larger context of Dumfriesshire. Many of the finds in the broader distribution lack specific contexts and could be associated with the Roman garrisons. This does not stop certain trends from emerging in the data (see Figure 8-10 for the distribution of Roman coins and Figure 8-11 for a distribution of other Roman finds). While neither coins nor Roman goods on their own produce distributions strongly associated with Roman roads, when the categories are combined there is a strong association (See Figure 8-12). This may indicate that much of the Roman material comes from Roman sites. This distribution and general lack of Roman goods is in marked contrast with Strathclyde and Galloway, where a greater quantity of this material was in circulation (Wilson 1997, 2001, 2003). The evidence from Galloway though should be treated with caution as Roman sites were not the only source for such material. Indeed there is evidence from the west coast that points to a trade in Roman goods which was not associated with Roman infrastructure.

Excavations from the coastal promontory forts of the region indicate a level of trade in such goods along the west coast. The sites of McCulloch's Castle (Scott-Elliot 1964) and Cruggleton Castle (Ewart 1985) both produced Roman goods and it has been argued that such sites may *have supplied* Roman imports to the local area (Toolis 2003, pp. 67-70). The presence of a counterfeit coin mould in the region *supports the theory* that the local area explicitly sought such material (Toolis 2003, p. 67) and acquired them through independent means not associated through the Roman forts in the region (Toolis 2003, p. 68). This western coastal trade predated the Roman advance in the north and continued after the Roman abandonment of the area (Cunliffe 2001; Toolis 2003). This adds a new dimension to the discussion of the Dumfries material. If there

was a local source for such material not directly associated with the Roman military occupation, then a lack of such material in the area indicates more than just limited interaction with the Roman fort garrisons. Roman material may have carried negative connotations in the area and was specifically avoided.

The distribution of Roman material on native sites has a long history of study (Curle 1932; Hunter 2001; Robertson 1970), yet less attention has been directed to so called 'native' material in Roman contexts. While the Dumfries region produced relatively little Roman material in native contexts, the evidence from Roman forts is remarkably different, producing evidence for a number of 'native' finds (Wilson 2003, pp. 124-31). The Roman fort of Birrens contained 'native' pottery (Robertson 1975), part of a native bridle (Robertson 1975), a Brigantian sword guard (Wilson 2003)(Piggot 1950) and numerous glass beads and Romano-British brooches (Robertson 1975; Wilson 2003), though these last items are not necessarily indicative of northern 'native' production. Native pottery was also recovered at Barburgh Mill fortlet (Wilson 1999) as well as numerous other finds which have been catalogued by Wilson (2003). While this material may represent trade with the local community, it is also possible that such goods came from other areas of Britain and represent a trans-regional trade network. Many of the items are display pieces, possibly representing the movement or even recruitment of Britons in the north or possibly relate to individual taste or display amongst the occupants of the forts (Gardner 2001;2004). The presence of native pottery is a little more puzzling to understand in terms of trade but could have been made on site as there is evidence from other forts for such materials (e.g. Cramond and Inveresk, see Chapter 7). Overall, while such material may relate to interaction of the Roman garrisons with local communities, it is equally possible that such material is just more common than has been recognised on Roman forts and could relate to the taxation or supply of local foodstuffs.

8.6 Roman Infrastructure in the Region

8.6.1 Roman Forts and Camps and their Association with Local Settlement

While there are noted chronological problems (see Chapter 4) with the phasing of local sites, it is broadly possible to assess the spatial impact of Roman infrastructure on local settlement patterns. The relationship between Roman roads and circular enclosures

indicates no significant pattern, it seems that the Roman features overall were not placed in a location that has a significant or statistical relationship to these settlement features (see Figure 8-13 and Figure 8-14). A different pattern is evident with rectilinear enclosures which show a significant statistical correlation with Roman roads in the area (see Figure 8-15 and Figure 8-16). It is difficult to assess whether the roads were located because of the sites or whether the sites were later constructed near to the roads. However, the excavations at Carronbridge may offer a clue as the Roman marching camp overlies a rectilinear enclosure (Johnston 1994). Given the sites' broad range of construction in the late Iron Age and early Roman period, it is probable that many of the other sites were also constructed after the roads were built. There also seems to be a strong relationship between Roman marching camps and rectilinear enclosure in the region (see Figure 8-17). It is possible to contest that the inhabitants of these sites either presented a threat which the Roman garrisons sought to neutralise or were power centres that cultivated a special relationship with Roman occupiers. These sites, given their connection to the Roman infrastructure in the region, may have housed the often discussed *Anavionenses* which are attested as being assessed for taxation and recruitment in the region (Birley 2001; Gregory 2001a, p. 41). Though there is evidence to support that such an interaction was not always peaceful. As has been mentioned, the Roman camp at Carronbridge overlies a rectilinear enclosure (C) which would have effectively been put out of use; the same situation occurs at Milton (Gregory 2001b, p. 42), Ward Law (Gregory 2001b) and possibly Hayknowes where the abandonment of the site occurs around the time of Roman advance (Gregory 2001a) and a Roman camp was constructed near the site (Gregory 2001b). Rispain camp, again near a Roman camp, has been argued to have been destroyed by fire (Haggarty & Haggarty 1983; Wilson 2003), but there is no indication whether it was caused by hostile action, or by accident (even if it was a hostile action there is no guarantee that it was Roman destruction). The evidence could be taken to suggest that the interaction between the Romans and 'natives' was hostile, although it should be noted though that the rectilinear enclosure (A) at Carronbridge continued to be occupied adjacent to the Roman fort (Johnston 1994). The south western distribution of Antonine period Roman fortlets has often been seen as an indicator that the region was resistant to Roman occupation (Hanson 1989; Hanson & Maxwell 1983). However, this argument has been dismissed as circular, because it is based on the mere presence of these features (Breeze & Dobson 2000) but the persistent lack of Roman finds on excavated sites could add weight to the idea of resistance.

8.7 The "so-called" Brigantian Revolt

The Brigantian revolt is now largely discredited (Breeze & Dobson 2000; Gillam & Mann 1970) and its association with the proposal of two Antonine periods questioned (Hodgeson 1995). The destruction levels at Birrens are now seen as the product of deliberate destruction by the garrison during decommissioning (Breeze & Dobson 2000), though see Wilson (2003) for a different interpretation). It should be noted that the site of Crawford underwent no similar destruction phase when its garrison was strengthened (Maxwell 1974; RCAHMS 1997, p. 173). It has recently been questioned whether the Dumfries region was even part of Brigantian territory (Birley 2001), again weakening the idea of such a revolt. Given the weight of evidence, the idea must be dismissed, but this does not mean that the destruction levels at Birrens should also be disregarded. If as Hodgeson (2005, pp. 39-41) argues, the abandonment of the Antonine Wall was caused by external pressures, the largely resistant population of Dumfries could have compounded this and forced the abandonment even participating in the destruction of Birrens while Roman garrisons were stretched. Just because a specific historic "event" is revealed to be unsubstantiated does not mean that all hostility in the area can be dismissed.

8.8 Occupation of Roman Sites by Locals

After the Roman abandonment of the area, a number of Roman sites were occupied by locals. The Roman fortlet at Burnswark (Christison *et al.* 1899), the Roman south camp at Burnswark (RCAHMS 1997) and the Roman fort at Broomholm all show signs of occupation which post dates the Roman presence. It has been argued that the native pottery found at Birrens represents post abandonment occupation by locals (Wilson 2003, p. 199) but given the distribution of this material on other Roman sites, this seems unlikely. The significance of this occupation has been commented on by Wilson who states "perhaps these native squatters were employed by Rome in arrangements for frontier security" (Wilson 2003, p. 108). Far more likely, such activities are a concerted attempt to re-stabilise local dominance through a physical statement. The occupation could also have practical considerations, but the Roman practice of decommissioning a site on abandonment would have made this largely impractical. A symbolic act in this context is far more likely; the inhabitants could also have been trying to co-opt the perceived power such locations could have aquired over time.

8.9 Burnswark Hillfort: Roman Manouvers, a Siege or Something Else?

The hillfort at Burnswark presents evidence of two main phases of occupation. The first coincides with the construction of the rampart defences and occurred in the early Iron Age (Jobey 1978a). The second phase of occupation occurred at some time in the late Iron Age to early Roman Iron Age with an occupation level dated through Romano-British and Roman finds (Bruhn 2002; Jobey 1978a). In this regard the site is very similar to both Traprain Law and Eildon Hill North, and while the size of the hillfort is not as large as either of those sites, it is the largest hillfort in the southwest of Scotland. The later occupation most probably was similar to that which occurred on both of those sites, but whether it played as important a role in local prehistoric settlement is unknown since the occupation of the site was cut short by the Roman works. Before this occurred, it is reasonable to assume that it played an important role in the local settlement hierarchy and society, possibly acting as a symbolic centre for the local communities of Dumfries. The quality and quantity of the material from the site indicates that the occupation was different from other local sites. This, combined with the visibility (see Figure 8-18) of the site, indicates that it could have served a local ritual function and as a gathering place for important events (Bruhn 2002). This role could have facilitated the site acting as a symbol of local identity, reinforcing social cohesion in the region at large. The placement of Birrens and the fortlet at Burnswark indicate that the local Roman garrison not only was aware of the site's importance but also kept a close watch upon the location, possibly even monitoring / restricting access.

The Roman works at Burnswark have been the subject of much discussion and debate over the years (Bruhn 2002; Campbell 2003; Christison *et al.* 1899; Collingwood 1926; Davies 1972, 1974; Gordon 1727; Haverfield 1915; Jobey 1978a; Maxwell 1998; Roy 1793; Schulten 1914; Stuart 1845). Much of this debate over the last fifty years has considered whether a siege took place at the site. The current view, based heavily on Davies (1972), proposes that no siege took place and the Roman works at Burnswark are practice camps with an artillery range. While this theory still seems to hold general sway (see RCAHMS 1997), it has recently been questioned. Maxwell (1998) called for further consideration as to the possibility of a siege of Burnswark. The idea of a practice work and artillery range was questioned and rejected by Campbell (2003). Whether a

siege took place or the works represent practice camps should be seen as only one aspect of the discussion given the three stages of Roman occupation at the site. In light of the recent research on Burnswark (Bruhn 2002; Campbell 2003) the argument for practice works is no longer practical and should be seen as a product of a certain historical agenda, which sought to view Roman actions in very modern terms (Campbell 2003, pp. 29-31). It was argued that the Roman works at Burnswark represented a concerted effort to dominate the landscape and local community (Bruhn 2002). If a siege occurred it would have most likely post dated the Antonine fortlet, yet it is hard to place an exact time frame on the event. Cambell suggests it could have occurred in the Severan period (Campbell 2003), but some time between AD 140 and the final abandonment of Birrens at AD 180 is more likely. There has not been enough excavation on the site to rule out the post siege occupation, but on the available evidence (Jobey 1978a) it seems unlikely that the site was re-occupied any time immediately after the siege. The distibution of settlement around the hill fort in the post Antonine period is significant, so it seems the site would have retained some importance, but this could have been a substantially different role after the siege, with memories of the event combined with the physical legacy which is still visible at the site.

8.10 Conclusion

In order to provide a better understanding of the Dumfries region in the Roman period, it has been necessary to review the prehistoric information from the area. An overall picture has emerged of a diverse and complex chronological framework for the region with considerable variation in local settlement. Yet, trends have emerged in the settlement pattern which show both similarities and differences with other regions in southern Scotland and northern England. Society consisted largely of small farmsteads which practised a mixed economy with some sites specialising in animal husbandry (Castle O'er, Uppercleuch) and others indicating a heavier reliance on agriculture (Carronbridge, Woodend). Arguably, there would have been social exchanges of such material which may have played a role in localised social hierarchy (see for example Castle O'er). How coherent and stable this hierarchy was is debatable, as there is little material evidence for it; indeed the lack of material at these sites is indicative of an economy of little waste and presumably extensive recycling. Given that most of the evidence for large quantities of Roman and Romano-British material comes from hoards in the region, it is probable that the deposition of exotic material was a ritualised affair

that occurred off-site. Over Rig indicates that the localised production of such material was also seen in a symbolic manner and that it occurred in designated areas which were physically separated but, paradoxically, also highly visible. As is typical in the Iron Age, the landscape was highly demarcated and showed an intense level of use. In addition, unlike the south east of Scotland, the area seems to be dominated by a trend toward enclosure in the Late Iron Age and Roman period which could relate to a desire to define settlement space (see Hingley (1984a; 1984b) for a general discussion of society and settlement enclosure and Moore (2006) for a more recent discussion). The fact that this trend continues into the Roman period may indicate insecurity within the local population during this time. While some rectilinear enclosures are clearly earlier than the Roman occupation, they become a main staple of the settlement pattern in the low coastal plain during the Roman Iron Age. It is these features, in addition to the hillfort at Burnswark, on which the Roman penetration specifically focuses on in the area. While such a pattern would normally indicate a level of interaction and exchange, the evidence from Dumfries appears to be dominated by hostile encounters.

The lack of distribution and uptake of Roman material is also telling in the region. Given that there were sources for this material other than Roman supply, the virtual lack of these goods on many of the sites indicate that such material was not actively desired, or at least failed to make a significant impact on the local communities. The material itself may have been seen as polluting in its association with Roman garrisons and was therefore avoided. Again this seems to be in marked contrast to neighbouring regions. While any region often consists of discrete social grouping which will display variation, the Dumfries area seems to be suggestive of an area-wide rejection of the material by the local communities, which clearly indicates more than just differing economic models. The inhabitants at Woodend may have even been cultivating relationships with areas outwardly hostile to Rome,[94] though this is an isolated example and could be explained by a number of other possibilities. The lack of a *vicus* at Birrens is also noteworthy but given that a building has been identified outside of the fort,[95] it is always possible that civilian settlement still awaits discovery. Yet, clearly the area was not

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[94] Caution should be shown as to whether or not there is enough evidence to support the northwest of Scotland as an area of outward hostility. Even then this comparison is dangerous as it carries with it bizarre and strangely topical notions of an outside power fostering local resistance.
[95] It has been interpreted as a Mansio (Robertson 1975a).

always so overtly hostile to the Roman garrisons[96] or there would be clearer evidence for a systematic suppression, though the possible recruitment of the *Anavionenses* by *Haterius* (Birley 2001) may have been a forced conscription (Wilson 2003). The settlement patterns highlight a densely populated region, relatively close to the Hadrianic frontier, and it is probable that there would have been attempts to tax the region. Whether or not goods were obtained locally is unfortunately unanswerable right now given the lack of relative information, though the extended granaries at Birrens (Robertson 1975a) could have possibly been used to store crops acquired in the local area, though the reverse might be equally true, that is, they were used to store excess grain because of a lack of local supply. Whatever the nature of local supply there clearly seems to have been a change in local disposition at some time in the late Antonine period, where earlier passive resistance turned to outright conflict. This is not surprising given the Roman sequence of occupation at Burnswark which culminated with a probable siege and was to leave a scar both physically at the site and culturally in the local region.

By combining a spatial measuring of the impact of Roman infrastructure on the local communities with a contextual discussion of both the sites and the relevant finds, a holistic understanding of the region has emerged. While there are still many questions to be answered, the complexity of the region during this period has been highlighted, showing that there are both temporal changes and localized trends in the interaction between the local communities and the Roman occupiers. Given the garrisoning of Birrens by the *I Nervana Germanorum* in the early Antonine period it would be interesting to speculate if the unit's ethnic origins played a role in the regions poor level of uptake of Roman material. Could cultural and linguistic differences have exasperated an already tense region with memories of the previous occupation?

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[96] The late stage of the third phase of the Roman works at Burnswark point to this area being occupied for a significant period before the Roman garrison, may be such a visible political statement and the probable siege occurred.

9 Conclusion

9.1 Introduction

The focus of this thesis has been the Roman occupation of the northern frontier in Britain and, more specifically, the impact this occupation had upon the local population. While the discussion has often highlighted the pluralistic nature of the northern frontier, primary consideration is given to the rural local population. This emphasis on the local population forms a deliberate attempt to redress the lack of systematic discussion of such communities within Roman frontier archaeology. While the approaches have utilised the developments in the Iron Age archaeology of the region, it is not solely a prehistoric endeavour. A major portion of this work has focussed on reconstructing and modelling Late Iron Age and Roman Iron Age society in the region and it has been undertaken with the explicit aim of creating a nuanced framework with which to better understand the overall Roman occupation of the area. This is not to argue that an understanding of Roman Iron Age society of the northern frontiers of Roman Britain is not an important area of study in its own right (one could easily argue that it has dwelt in the shadow of Roman occupation for far too long). Rather this has been approached in this way to highlight the need to better understand the regions which were occupied, in order to measure the nature and impact of this occupation. As proposed in Chapter Two, any study of the Roman frontiers needs to be undertaken in an holistic manner which utilises and incorporates the advances in both Iron Age and Roman archaeology. This is fully evident in the extent to which prehistoric archaeology (Armit 2005; Barrett 1997; Haselgrove *et al.* 2001; Haselgrove & McCullagh 2000; Hingley 1992b, 2004; Hunter 2001, 2007) and Roman studies in the south of Britain have moved beyond attempts to confine archaeological evidence from the period within the narrow constraints of tribal identity groups. The implication of this shift has not yet been fully realised by archaeologists studying the Roman occupation of southern Scotland.

While there are issues with both the quantity and quality of archaeological investigation, in the past thirty years there has been a considerable increase in the number of sites discovered and excavated, as well as new assessments of previously recorded material. As such, a more localised, regionally-specific approach to understand the northern frontiers is justified in order to catalogue and assess the importance and impact of these

advances. However, this thesis has not simply summarised recent work and updated pre-existing models of Roman frontiers, but has also introduced new methods, both for studying the region and addressing the issue of Roman Imperialism. These methods, highlighted in Chapter Five, have utilised multiple techniques and have allowed a level of analysis which, with regards to the quantity of data involved, would have been impractical without the use of GIS. To address the findings of this study, a short review of the overall conclusions will be presented followed by a discussion of possible future work to be undertaken in regard to pluralistic social settings in the northern frontiers of Roman Britain.

9.2 Discussion of Case Studies

9.2.1 Introduction

This section is a comparative review of the findings from the three study areas and how they can be used to assess and reconceptualise the Roman frontiers of northern Britain. By focussing on regional study areas, it has been possible to isolate specific local trends in the archeological evidence of southern Scotland during the Roman occupation. This has highlighted the regional variability of the northern frontier, indicating that local communities differed in the way they interacted with the Roman occupiers and that the nature of this relationship changed over time. As such, it is exceedingly difficult to continue to see the northern frontiers in a dualistic and uncomplicated manner. In order to highlight these regional variations, the findings from each of the three study areas will be summarised and followed by a discussion of their similarities and differences. It is then possible to extrapolate from these very specific and localised areas to the larger concept of a Roman frontier, illuminating the overall discussion of cultural interaction in the Roman north.

9.2.2 Newstead Study Area

Iron Age settlement in the Newstead region is, in many ways, typical of the overall settlement trends and patterns of southern Scotland and northern England (Armit & Ralston 1997; Ferrell 1997; Harding 2001, 2004, 2006; Hingley 2004; Jobey 1985; Ralston 1996). Iron Age society was primarily based in small circular enclosed farmsteads which are broadly distributed throughout the region, but appear to cluster in larger groups in areas which are more environmentally suitable to a mixed agricultural regime. This dense and dispersed settlement pattern also contains larger enclosed sites

(often, but not exclusively, located on hilltops), which appear to be more communal in nature since they are physically larger, but also appear to be more densely settled (Rideout *et al.* 1992).[97] The settlements in the region would appear to have a long currency of occupation given the multiple phases of structural sequence, though this is often belied by the relatively small amount of artefactual evidence recovered on these sites. The Late Iron Age brought about some change in this pattern through the development of new morphological styles, but to what extent this represents a shift, if any, in the underlying function and social organization of these sites remains to be established. These new sites do appear to have had slightly more access to Roman material culture. Rectilinear enclosed settlements, which may typify this period, have a more evenly spaced distribution than the earlier circular enclosures and occasionally occur in areas where circular enclosures are largely absent. While this could indicate a demographic shift in the region, the fact that some of the circular enclosures continue to be occupied in this period would indicate that rather than a simple shift, it relates to an overall increase in settlement density during the period. Rectilinear settlements in the area indicate a stronger spatial association with the Roman infrastructure than circular enclosures, which could indicate that the Roman infrastructure became a consideration in later settlement placement in the area. It should be noted however, that while rectilinear enclosures demonstrate this spatial association, all enclosures in the area have a slight correlation with the Roman infrastructure, so the pattern is one of degree. Though this does not account for why there is a stronger association with the rectilinear enclosures.

The importance of the Roman infrastructure in the area is also highlighted by the distribution of Roman finds. As was noted, there seems to be two patterns of distribution: one relating to the status of the sites and another broader pattern of distribution in which Roman finds are spatially related with the Roman infrastructure. This second relationship seems to continue after the military abandonment of the area indicating that, while limited, an interaction between the local population and Roman supply to the south continued. The nature of these contacts is still little understood, but the realisation that that they continue to be connected with the Roman road network offers the possibility to further pursue this issue, as does the implication that this network also affected settlement location in the area. More emphasis needs to be placed

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[97] In addition a communal effort would have been require to construct and maintain their defences (Bowden & McOmish 1987, 1989; Collis 1996; Hill 1995a, 1996; Hingley 1990)

on the location of Newstead fort, as while it clearly controls an important river crossing, its close proximity to Eildon Hill North indicates that there was an attempt to control or limit what was probably a site of great cultural importance. Interestingly, the development of other elite sites appear to occur on the spatial periphery of Roman influence.[98] This spatial isolation does not seem to reflect on the amount of 'Roman' material occurring on these sites, indicating a more complex level of interaction than one would have previously imagined. The prime example of this in the Newstead study area is the broch at Torwoodlee. While the earlier hillfort at the site (given its size) was more likely to have been important during the Iron Age, the later addition of the broch seems to lend more importance to the later site during the occupation, as the occupants had the ability to acquire 'Roman' material. The construction of the broch indicates a shift from the more communal nature of the large enclosure to that of a single household.[99] Not only does this hint at a shift in the community from an inclusive to a more exclusive mode of status display, but also given the more permanent and grandiose nature of the building, it also indicates a desire to solidify such status through architectural elaboration.

It is interesting to note that the model of the broch does not seem to have spread widely in southern Scotland. The limited adoption and short life of the settlement type (brochs) may indicate a failure of the occupants to maintain such a restrictive social hierarchy. If the development at Torwoodlee does coincide with the Roman occupation, as the finds seem to indicate, then there appears to have been a shift or increase in the importance of sites outside of their immediate influence. This could simply be a product of 'Roman' taxation in the surrounding area, which would have lessened the economic potential of local sites, or it could represent a shift of power away from Roman sites in an attempt to lessen their control, perhaps a form of resistance to the occupation. With the Roman withdrawal from the area, it is possible that the site ceased to continue serving such a purpose and became redundant, explaining its abandonment. Unfortunately, given the nature of the chronological indicators on the excavated sites and overall lack of

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[98] It could be that these elite groupings were already in existence and were effectively utilised by the Roman garrisons to maintain order in these regions, and that the Roman garrisons were placed in areas which either lacked an elite network, or such a network could not be controlled or bought off. However, if these elite networks either emerged or were strengthened in the Roman period, it may be that the Roman garrisons act as an economic depressant on the area directly around the fort.

[99] It is possible that these southern brochs were communal in nature in that they required a large work force to complete, and they would have housed significantly more people than most single roundhouses but they are still less communal than large hillforts. The level of architectural display would also indicate that there are social inequalities at work within the society.

extensive excavation, it is difficult to assess what occurred on the local level after this withdrawal. The presence of post-occupation Roman finds in the region does attest to a continued presence in the area, but this seems to have been considerably limited, given the close connection of such finds with the Roman road network. This also highlights the continued significance of Roman material culture in the region during the post occupation period. Although the access seems to be limited as Macinnes (1989) has argued, it was not as completely isolated as was implied.

The influx of new populations into the region during the Roman occupation was limited to the fort's garrisons and extramural occupation at these sites. The *vicus* at Newstead, while substantially more developed than previously understood, still indicates a relatively small influx of population tied largely to the fort. The abandonment of the fort and *vicus* seem to have been contemporaneous, suggesting that any introduced population groups in the region would have left at this time. The overall impact of the Roman occupation appears to be varied in relation to the distance from the fort. As such, the Newstead region can be seen as containing elements of the other two regions but also had its own unique historical context and trajectory. The importance of its close connection to Eildon Hill North needs to be further explored, especially now in light of the questionable evidence for supporting a signal tower on the summit. This should force a reassessment of the idea that the site was abandoned during the Roman occupation.

9.2.3 Inveresk Study Area

Like Newstead, the Inveresk region is characterised by a number of specific trends. Pre-Roman Iron Age society focussed around clusters of circular enclosures. These clusters would have probably consisted of extended social networks, accounting for the distribution of goods on a local level. In the Late Iron Age, those settlements which continue in occupation were no longer enclosed. These unenclosed settlements show a high level of site continuity, often displaying a relatively large quantity of cultural material as well as evidence for the manufacture of some of this material. In addition to this shift to unenclosed settlement, the occupation of existing enclosures and construction of new rectilinear enclosures continued. These rectilinear enclosures tended to occur in concentrations. Two notable examples are evident; one around Traprain Law to the east of the study area (Armit 1997a), and the second indicating a spatial association with the Roman road network, at Inveresk. This evidence, combined

with the evidence from some of the settlements attesting to abandonment at the time, would seem to point towards a spatial shift in the local population.

The region also produced some of the strongest evidence for *vici* north of Hadrian's Wall, at both Cramond and Inveresk. These settings would have been far more ethnically diverse than single garrisons.[100] While the significant amount of Roman material at Traprain Law dominates discussion of the Lothian region, there is also a fair amount of Roman material throughout the region. While this is partially the result of an increased amount of excavation and retrieval in the area, it also appears to represent an actual trend whereby Roman material culture is found more regularly on local sites. The extended associated population at the *vici* may account for the wider distribution of 'Roman' finds in the region, specifically coins which have a wide distribution. However, given that finds are often found in settlement contexts, this phenomenon is probably the result of an increased uptake or access to such material by the local native population. As mentioned earlier, it is difficult to distinguish whether this is attributable to increased access or represents a desire on the part of the local inhabitants to utilise such goods. The pre-Roman pottery tradition in the region may have been instrumental in this process, as it highlights a community already familiar with the production and consumption of pottery and, by implication, their desire of such materials within their day to day social practice. Roman impact on the region was fairly economically substantial outside of the immediate fort setting, and brought little change to the local region as far as building practice. When the forts in the region were abandoned, material, notably pottery, continued to reach the area, attesting to a continued supply. Given the lack of much of this material in the Scottish Borders during this period it may have been shipped in via the old ports, while the late coin evidence around Newstead attests to the continued use of the road network. After the Roman withdrawal from the region, Roman architectural fragments were widely incorporated into later construction, mirroring the earlier Iron Age practice of utilising cupmarked stone within a new cultural context.

9.2.4 Dumfries Study Area

In the Late Iron Age of the Dumfries region, settlements continued the tendency toward enclosure. Indeed, there seems to have been an increase in enclosure construction at the

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[100] This may reflect a more positive interaction with the local indigenous population in the region, or may have to do with logistical issues with supplying the Antonine Wall garrisons (e.g. more goods coming through, so this would increase the chance of a greater need or possibility for civil development).

time of Roman advance with many of the excavated settlements indicating the elaboration of their enclosures during this period. None of the unenclosed phases of settlement excavated in the region appear to date to this period, but many of the smaller circular sites do. The general settlement pattern shows no marked association with the Roman infrastructure; the exception to this is rectilinear enclosures which have a stronger spatial correlation with the Roman roads than of the circular enclosures, and earlier high status sites which seem to have been focal points for the placement of Roman forts and fortlets. Birrens is placed near both the hillfort at Burnswark and Lochmaben, both of which had important roles during the Iron Age. While both sites were used during the Roman period, with evidence of Burnswark becoming a contested space, it is areas beyond immediate Roman influence that experience the most significant changes during the Roman period. The intensified occupation at Over Rig and Castle O'er being the prime examples identified so far. There seems to have been multiple and discrepant social groups occupying the area. Not only do the rectilinear settlements have a slightly stronger spatial relationship with the road network, but they also produce many of the meagre Roman finds from the region, indicating completely different social and exchange practices from the occupants of the neighbouring circular enclosures which were occupied contemporaneously.

The Dumfries region is conspicuous for its lack of 'Roman' material uptake. Even on sites which produced finds, these were often of the type which could be termed 'Romano-British' rather than 'Roman'. The tendency to acquire glass bangles and brooches conforms with the general trend of finds of the Roman Iron Age as one of portable displays of status and personal identity indicating that very little changed in daily social practice (see Hunter 2001, p. for a discussion of the role of this material in identity). Roman finds in the region are clearly associated with the road network and those which are not often occur near Roman camps, which is evidence of a greater Roman presence in the immediate area[101]. Clearly there was little desire to acquire Roman goods and while such a pattern could be caused by lack of access to such goods, the occurrence of goods in the areas further to the west would seem to indicate that it was an actual choice rather than an economic constraint. When this is combined with the evidence of military activity at Burnswark and the increased number of fortlets in

[101] This association of material with camps is puzzling given that excavated camps have produced few finds (Dunwell *et al.* 1995; Joseph 1970; Lowe *et al.* 2000, p. 247; Shepherd 1986; Welfare & Swan 1995, p. 3), and that given the assumption that they were of a temporary nature, they would have had limited time to impact in the immediate area.

southwest Scotland, it would seem to indicate that the area was hostile to Roman occupation. Dur to the lack of post occupation Roman material, it would seem that it remained hostile after the Roman withdrawal. This hostility may explain the lack of *vici* development, although the possible evidence for buildings in the annexes at Birrens may potentially challenge this assumption in the future.

9.2.5 Similarities and Differences Between the Areas

It is clear that there are a number of similarities and differences between the three study areas during this period. Not only are the areas characterised by different settlement patterns, but they also had a different level of 'Roman' material uptake. All three areas also had both a dense and dispersed settlement pattern, while the specific nature of these patterns differed. It should be noted that the discussion of each of the regions were generalisations in their own right as each area showed a significant amount of internal variability. This highlights how questions of spatial scale will always have an impact on the type of trends discovered and why multiscalar analysis is so necessary. Broader generalisations have the advantage in that they allow specific trends not to get lost in the detail, facilitate useful observations and highlight which practical models are useful for understanding the issues at hand. The question is not if one generalises, but rather at what spatial levels such generalisations are most accurate, serving to identify the subtle trends which are occurring. In this regard the three case studies have proven to be successful in being localised enough to distinguish distinct trends in the archaeological data, while still being large enough to appreciate the larger overall picture of the northern frontier of Roman Britain.

The most notable similarity between the areas is the connection between rectilinear enclosures and the Roman road network. While it is possible that such a connection is the by-product of increased archaeologial observation around Roman forts and roads, there is evidence to suggest that this is not solely the case (see section 5.2.4 p66). This is highlighted by the fact that the areas which have the strongest correlation (Inveresk and Dumfries) are also the areas that have been most systematically surveyed, indicating that the observation is not simple survey bias, but actually represents a significant trend. This, combined with the realisation that most of these sites, when excavated, can be dated to the Roman period, highlighting the significance of this correlation and indicates that these sites were an important aspect of the Roman Iron Age in the region. Why circular enclosures do not also display this connection would seem to be a key question.

Why are there such distinct spatial patterns between two cropmarked morphological shapes? The question of why they were morphologically different from others in the region is more difficult to address and may have to do with issues of time depth. However, cultural, environmental, or even functional explanations for the difference in morphology should not be ruled out. The temporal association of these sites, together with the fact that the distributions of these sites has an association with Roman features, appears to suggest that they are not just a product of the classification system. There were also a variety of other settlement types in use during the Roman occupation in all three regions, indicating that there was no uniformity in settlement pattern. While this highlights the difficulty in modelling settlement distribution without extensive excavation, it also provides a unique opportunity to explore issues of identity and social grouping, indicating a fluid and changing nature of social structure.

The second similarity is that Roman finds are often spatially associated with Roman infrastructure, which of course would be expected to some degree as most will be associated with settlement sites. This would seem to indicate that the distribution of Roman goods is tied into this network. Though it is important to note that some of the local sites, which have the most significant quantities and often best quality of Roman goods, occur outside of the immediate area of Roman infrastructure. This is most likely related to the third similarity between the regions: that the development of important sites during the Roman Iron Age occurred outside of the immediate zones of Roman control. This is important to note because it implies that the immediate impact of the local Roman garrisons was detrimental to local social development in the regions or that the Roman garrison specifically targeted areas with weak or un-cooperative existing social hierarchies. This caused a shift in locale of some focal points and increased development of existing focal points, which concomitantly increased the importance of those sites on the periphery of Roman occupation. Sites like Traprain Law which avoided close Roman development seemed to have flourished. While the local power centre at Eildon Hill North seemed to shift to smaller sites like Torwoodlee broch in the Newstead region. This also appears to occur in the Dumfries region. As Burnswark becomes a contested space, the complex at Castle O'er and Over Rig seems to increase in social importance. A similar argument has be forwarded on broader terms, where the frontier as a whole is seen as an economic and social restraint on elite development:

> Beyond the military zone to the North are located brochs and souterrains, the local equivalent of the high-status villas. Possibly in the Frontier zone the army acted as an economic depressant, creaming off money from the local inhabitants, and replacing the local aristocracy as the elite of society, as indeed in one sense they were (Breeze 2006, p. 101).

The evidence presented within this thesis would indicate that the picture is a little more complex than this. While Roman garrisons may have had a negative impact on certain social centres it was far more localised than indicated by Breeze, working within the frontier zone rather than as a blanket across it. The other problem with this explanation is that it does not take into account the occupants of rectilinear and open settlements in the region, which while maybe not of 'aristocratic' class, were clearly not impoverished and had access to Roman material.

The use of Roman material in local contexts is also similar in the different study areas, although it does vary in the quantity. As has been noted, much of the Roman material which was incorporated into local use complements pre-existing social practices. There is a tendency towards portable personal display items which would have been utilised in the same way as pre-Roman Iron Age artefacts. There is also a secondary function of Roman material as a raw material or resource in its own right to be reworked into 'native' objects. While this can be seen as an example of resourcefulness on behalf of the local communities, it is also possible that there was a desire to alter the material and exert some claim over it. This possibly indicates a need for empowerment in the local population at a time when they were insecure over shifting power relationships. This may be mirrored in the incorporation of Roman masonry into later settlement construction and the reoccupation of abandoned Roman sites which occurred in all three study areas.

While there are a number of similarities between the regions there are also notable differences. It is these differences which make generalising about the northern frontier difficult, if not misleading. While the variety of settlement types in the region has been noted, there are strong regional trends in the types of settlements in use during this period. The Inveresk region sees a Late Iron Age shift toward unenclosed settlement, while in the Dumfries area there is completely the opposite trend toward further enclosure. The Newstead region sees the introduction of a new architectural form (broch) that while short lived, represents a break with previous settlement type. It is tempting to see these shifts as representing trends in the social organisation, but they may have been

reflective of the perceptions of security and the role of settlements in society. A demographic shift also occurs in each of the areas, but it differs in extent in each region. The Inveresk region sees an influx in Roman soldiers, and also the occupants of the *vici* which would have created a different type of occupation in the region to that occurring in the other areas. Newstead, while also containing a *vicus,* the extent and nature of which is not fully understood, seems have been of a more limited nature. Dumfriesshire currently produces little evidence of any substantial civil zones, again highlighting the often discrepant nature of Roman occupation.

These differences are mirrored by the amount of 'Roman' material uptake in each of the areas. There is a sliding scale between the three study regions; with Inveresk in the northeast of southern Scotland showing greatest amount of Roman material uptake, down to Dumfriesshire which has remarkably little. This marked difference highlights the discrepancy in access to, or desire for, Roman material culture throughout southern Scotland. The type of material is also slightly different in that the Inveresk region has the most significant amount of coarse pottery uptake, something which is generally rare north of Hadrian's Wall. While all three study areas have a decline in 'Roman' goods after occupation, the extent of this varies. Paradoxically, it is the area furthest from the Roman provinces which has the largest amount of post-Roman occupation material, followed by a small amount in the Newstead region and very little in the Dumfries area. This illustrates that distance from the Roman garrisons was not a particular factor in the introduction of imports in the post-Roman period; the pattern probably relates to social relations between the local population and the Roman garrisons further south.

Each different area would have had a radically different experience of Roman occupation, and identities in these areas would have been affected according to this experience. Communities in the north showed an amount of pluralism, which was apparent in how they managed and interacted with the occupation of the Roman garrisons. In this light it is difficult to accept the continuing groupings of such communities under the wholesale term 'native' and the tendency to describe actions and responses in generic and simplistic terms. The continued discussion of such broad regions as the Tyne Forth province (Harding 2001, 2004, 2006), which is often utilised when presenting the prehistoric and Romano-British evidence from southern Scotland, does not account for the level of variability which has been displayed by this study. There should be a continued refinement of these broad 'cultural' and spatial zones.

9.3 Frontiers

The observations from each of the study areas have a significant impact on how the frontiers of northern Britain are conceptualised as a whole. In addition, the trends are of some importance in relation to how the notion of frontiers as a theoretical concept in the past is understood. In order to fully assess these observations, the model developed by Parker (2006) will be utilised. While the model is fairly simplistic, it benefits from this as it allows different frontiers to be compared while still maintaining the integrity and particular nature of each separate frontier. This is important given that each frontier is the product of unique historical circumstances and as such can only be fully understood within its own context (Parker 2006, p. 77). In fact the primary purpose of the model is to facilitate the comparison between frontiers from different temporal and geographical backgrounds and was based in part by the model first developed by Elton (Elton 1996; Parker 2002, 2006). As was highlighted in Chapter One, the model seeks to define frontiers by a number of subcategories with each one being measured on a continuum relating to the nature of the boundary (Parker 2006, pp. 81-3). There is a flexible division drawn between border and frontier to further develop the nature of these regions within the overall concept of boundary (Parker 2002, p. 347, 2006, pp. 78-81). Borders are seen as "linear dividing lines fixed in a particular space", these divide regions or cultural and political entities (Parker 2006, p. 79). Frontiers are more fluid in nature and are often vague as far as delineation and can be seen as "loosely defined areas or transition zones that lie between political or administrative entities or between one such entity and a hinterland" (Parker 2006, p. 81). These terms can be seen as opposite ends of a continuum which falls under the generic category of boundaries which is broadly defined as "unspecific divides or separators that indicate limits of various kinds" (Parker 2006, p. 81). In order to assess a particular region or boundary, further categories are suggested: these are geographic, political, demographic, cultural and economic (Parker 2006).

Each of the categories has been subcategorised further, which allow refinement of the model (Parker 2006, p. 82). These subcategories include: topographical features, climate, flora and fauna, political, administrative, military, ethnic, population density, material culture, transhipment of commodities, production of finished products and agricultural production. Each of the study regions has been assessed in comparison to each other by this system to determine the nature of their boundaries, both during and after occupation

(see Figure 9-1, 9-2 and 9-3). Based on the findings from each of the study areas, each category was assigned a position on the scale between static and fluid. Dumfries, for example, which produced few finds during occupation was seen as falling into the restrictive category, while in the post-Roman occupation period, this shifted into the static category due to the almost complete lack of finds from this period. The political assessment of all three areas is fluid during Roman occupation due to the military aspect of this category. Given the unique nature of each boundary region, they were compared to a general model of the northern frontiers of Roman Britain which is a combination of the three case study areas. (see Figure 9-4).

This model has been very useful in highlighting the relative differences of each area in the overall region, as they produced very different forms of boundary classification. Newstead falls under the term of 'frontier' during occupation but then shifts after the withdrawal into the 'border' category. Inveresk, on the other hand, is clearly in the 'frontier' category during occupation and remains within it during the post-occupation period. The Dumfries region, unlike both the others, is closer to a 'border' during occupation and shifts further into that category after withdrawal. When this is combined into an overall model, it presents a strong division in the nature of the frontier during occupation compared with the post-occupation period. This shift from classification as a 'frontier' to one of 'border' coincides with the reoccupation of Hadrian's Wall. While the Inveresk region continues to display the traits of a 'frontier' region, the two areas closest to the Wall show a reduction in the amount of exchange and interaction. This implication brings into question the idea that Hadrian's Wall during the third century was largely porous and fluid with regard to cultural interaction and was primarily an administrative feature (Whittaker 1994, 2004), and supports the idea that the reoccupation of the Wall during this phase restricted exchange (Fulford 1989; Macinnes 1989). This, however, is a complex issue and has not been a principal consideration of this study, but the observation does indicate that the frontiers of the Roman Empire are a complex entity, and it is difficult to generalise in regard to both regions and period. This again highlights the regional but also highly diachronic nature of the northern frontier of Roman Britain.

9.4 The Application of GIS

While this thesis addressed a number of theoretical topics: from archaeological time, ethnicity, exchange, to cultural interaction, one was discussed in greater detail than the others; this was the implication of utilising GIS within archaeological projects. As has been noted GIS was utilised extensively in the study. While it had a tenancy to push the research in certain directions, to move the focus to data which could be spatially represented and quantified, it has allowed a certain uniformity in study with regards to the three areas, and a number of observations to be made about society at the time. Some of the most significant benefits of utilising GIS have been its ability to analyse large amounts of spatial data. Some of the trends discerned were not entirely visible. In addition to this, the GIS software has allowed these trends to be statistically tested. Where the amount of area is taken into account, this allows the results to be scrutinised, rather than just accepted. It is this aspect which makes GIS so fundamental to landscape studies. When the flexibility of the platform is considered, in addition to its ability to incorporate new methods, the GIS software has been incredibly informative.

9.5 Conclusion

This study has questioned the monolithic and reductionist manner in which the northern frontiers of Roman Britain are often conceived. It has illustrated that not only was there considerable variety in the communities of the northern frontier, but also in how these communities interacted with the Roman presence. In doing so it has questioned some of the key assumptions in Roman frontiers studies and attempted to redress the imbalance between Romanist and prehistoric approaches. The use and development of multiple methodologies within GIS has also been highlighted as a potentially new system for not only studying existing information, but for generating and understanding new data sources. This has allowed a multi-scalar approach in the region which has also attempted to utilise interdisciplinary approaches to gain a new perspective on the existing material.

The issue of interaction on the northern frontier has been shown to be far more complicated than previously appreciated, and one of the main contentions of this thesis is that the material *is* available to begin to ask and answer many of these difficult questions. The nature of the frontier in the region has been shown to fluctuate over space and time, and there are new ways of viewing frontiers which further illuminate

the concept. During the Roman occupation, there are clear zones of influence that radiate outwards around the forts. It may be useful in the future to conceptualise the frontier as these zones of influence, rather than as blanket swathes across whole sections of featureless maps. The other main point is that while the Roman occupation of the region can be seen as relatively short, compared with southern Britain, the total time of occupation still exceeded what would have been required for multiple generations and there would have been a large portion of the population who had grown up knowing only Roman occupation. This, combined with the substantial changes which occurred in the three study areas, makes it no longer feasible to dismiss Roman occupation of the region as an brief phase which had little impact. This study addresses many of the aspects that could be explored but due to the extent of the topic, there is still much work to be done, not only to redress some of the past imbalances, but to also increase the knowledge of what is often a complex and problematic subject.

9.5.1 Reflection and Prospect

While this study has addressed many of its key aims, it has also raised a number questions. The study attempted to approach the issue of plurality on the northern frontiers of Roman Britain from the perspective of reviewing both the prehistoric academic literature and the 'Roman' evidence, it has placed considerably more emphasis on the prehistoric. This study focusses on the indigenous settlement and non-Roman finds locations, though, it is justified in that it is redressing what is clearly a bias in Roman frontier studies. Future research would further benefit from such an holistic approach, which analyses the spatial patterns and quantative distribution of finds on Roman forts in the region. This would help address the issue of plurality within the context of the Roman forts and *vici,* as it is only through understanding identity and social practice in all aspects of the frontier that any further advances can occur.

The aspect of ethnic identity with regards to the forts is one of great interest given the extensive amount of epigraphic evidence. While it has long been noted that there are a number of different ethnic auxiliary units stationed in the frontier (for a table of the different units stationed in the study areas see Appendix VIII), there has been relatively little discussion of such issues. The epigraphic evidence is normally accepted strongly enough to justify the association of a particular unit to a fort (see Spaul 2000) and debate is usually abandoned there. There is little attempt to examine the possibility that ethnicity is visible within the archaeological record as there seems to be the explicit

assumption that once soldiers are defined 'Roman' they behave in a 'Roman' fashion. Potentially, it would be interesting to test or substantiate the epigraphy with the archaeological record. In addition there is a growing realisation that ethnicity did have an impact on social practice in the fort and that it is archaeologically detectable (see Cool 2004 and section 1.2.1). It seems logical that the ethnicity of units would have had an impact on their interactions with the local communities. It is this type of study which has the potential to break down the monolithic portrayal of a coherent and fully unified Roman army. Additionally such work would continue to explore the huge potential of the archaeological record of the north.

Throughout the study I have attempted to resist calls for further excavation as while such methods do illuminate many of the issues, they do not necessarily always address and resolve them. Archaeologists have to work with the archaeological record which is available, not what they wish was available. It also leads to the basic question of how much is enough? How many sites need to be explored before study is justified? One, of the realisations that have become apparent during this study is just how much material is available which has not been fully appraised. This is especially true in regard to the Roman forts which often have a considerable amount of data and which have, until now, mostly been used to date occupation levels. Significantly more could be gained from reprocessing these data in light of new theoretical and methodological insights.

In light of this, my proposal for future work in the region would focus around four main aspects. First, further testing is needed of the existing settlement record, with both new methods and more localised studies, to assess if further regional trends can be discerned. This would include applying the methods developed within this thesis to other areas in the frontier of Britain and the German *limes* where there is a substantial dataset. Second, a continuation of the recent work on finds analysis relating to the period to determine the full extent of the re-use of Roman material. Third, there needs to be a systematic study of *vici* in the north to determine the development and extent of these sites as well as to further understand their relationship with the forts in the region. Finally, a reassessment of the finds from Roman forts to determine what impact ethnic identity had on the occupants and whether this would have had any impact of relations with the local communities in the area. By expanding on the methods developed within this study a more comprehensive picture of the Roman frontiers will emerge, which can be further compared and contrasted with the cultural studies occurring on frontiers along

the Rhine and Danube that have undergone a number of studies addressing colonisation and cultural interaction (Bloemers 1989, 1991b; Creighton & Wilson 1999; Okun 1991; Roymans 1995; Schnurbein 2003; Wells 1980b, 1992, 1993, 1998, 1999b, 2005; Wigg 1999).